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Unlocking Value with Supplier Relationship Management Practices

A case study of how to utilize SRM as a competitive tool

Master's Thesis in Supply Chain Management

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Abstract

Supplier Relationship Management (SRM) is treated as a strategic and holistic approach in order to manage suppliers that are critical or important to the business. The purpose of SRM is to have a long-term relationship where mutual growth and increased value can be achieved. A case study was performed at a Swedish manufacturing company, where 13 qualitative semi-structured interviews were conducted. The purpose of the study was to investigate how SRM can empower the purchasing and supply management in a global manufacturing company. In order to do so, the current state of SRM operations as well as the best practice of tools and processes from literature was identified. The study was conducted in order to provide improvement areas and suggestions of how the case company can generate additional value and gain process efficiency from SRM activities.

The findings synthesize that SRM concern five key areas that are interrelated and needs to be worked with as a whole in order to succeed with SRM practices. The five areas that respectively consist of several tools and managerial implications are *Holistic Approach to SRM, Segmentation of Suppliers, Relationship Management, Performance Measurement, and Supplier Development.* The result of the master thesis shows that there is a great potential of implementing SRM in the case company. Many things can and need to be done in order to unlock value. A starting point is to follow the nine recommendations that were suggested in the end of this report which that concludes the results of how SRM can empower the purchasing and supply management in the company. The recommendations regard the following areas: Orientation, goals and vision, Coordinating purchasing, Segmentation, Governance structure, Managing relations, Key Performance Indicators, Review meetings, Procure-to-pay process efficiency and Internally follow up SRM.
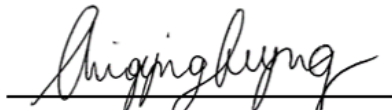
Keywords: Supplier relationship management, SRM, Procurement, Segmentation, Relationship management, Performance measurement, Supplier development
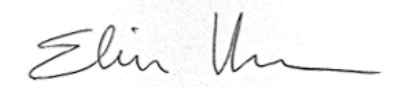
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1 Introduction

This section aims to give an introduction to the thesis, starting with a description of the background, the case company, the purpose of the thesis and finishing with the delimitations of the scope.

1.1 Background of the Phenomenon of SRM

The role of procurement has drastically changed over the last decades and become more important in a company context. More than half of the total value is dependent on procurement (van Weele, 2018). The increased importance of a company's supply side emerges from the high impact on business performance and profitability, as well as the impact on effectiveness and efficiency of a firm. This impact has resulted in increased strategic importance for managing suppliers (Dubois and Pedersen, 2002). Thus, the supply base of a buying firm is a valuable asset since purchasing activities have both direct and indirect impact on profitability. Furthermore, the supply base brings opportunities in terms of access suppliers' knowledge and technology, which can give a competitive advantage for the future (Gadde, Håkansson and Persson, 2011).

In recent procurement and management research, Supplier Relationship Management (SRM) is an emerging topic that has arisen from competitive pressures and has become a critical business process to maintain competitive advantage (Lambert and Schwieterman, 2012). The concept of SRM arose from companies recognizing the value that could be unlocked from having developed relationships with the most critical and important suppliers. SRM is described as a strategic and overarching approach of how to handle different types of supplier interventions to enable the own company to reach its goals (O'Brien, 2018). There is both much and little said about SRM, for example, buyer-supplier relationships, supplier segmentation and supplier development are all developed research areas. However, SRM as a management area has not yet fully developed. There seems to be no standard definition nor consensus of what SRM is and how it is done. SRM is thereby understood and treated in different manners by different authors. The belief is, however, that the next step towards procurement excellence is to adopt a value-driven orientation with supplier collaboration as a key cornerstone (Peek and Verweij, 2013).

To achieve corporate goals, the core of the SRM philosophy lies in ensuring that the right approaches are applied with the right suppliers (O'Brien, 2018). Based on sourcing strategies, all suppliers do not need the same attention, hence every supplier does not need a deep collaborative relationship (van Weele, 2018). SRM is accordingly needed as a structure for how to develop and manage relationships (Lambert and Schwieterman, 2012).

Executing an SRM approach can fuel growth, improve effectiveness and efficiency, reduce cost and minimize supply risks to achieve overall competitiveness (O'Brien, 2018). Furthermore, it can reduce cost and based on a long-term mutual commitment create value and shared success for the buyer and supplier (Lambert and Schwieterman, 2012).

1.2 The Case Company

This master thesis about SRM has been performed in collaboration with a Swedish manufacturing company. The company is present in over 130 countries and 40 industries all around the world and is a world leading company in their field of technology. The company's main strength is their ability to constantly develop new technologies and use these to create products that will give customers a competitive advantage (Company webpage, 2019).

The purchasing function employs about 550 people in 25 countries and the total spend is approximately 40 BSEK. The company has slightly over 30 000 suppliers globally where about 10 % of the suppliers get 90 % of the spend. In 2012 the company started a journey towards a centralized purchasing function as their purchasing capabilities were behind the industry average. Since then, continuous work has been done to harmonize and standardize the way of working with procurement (Company internal material, 2019).

1.3 Purpose and Research Questions

This thesis aims to explore and determine how to create value from SRM, as well as identify where additional value could be created in the studied company. To do this, the purpose was to identify and describe the current state of operating with suppliers to further imply how SRM could improve the processes. Thus, the processes defined by the company and how suppliers were monitored needed to be investigated. Further investigation of literature and managerial tools was made in order to facilitate methods and models to improve ways of working with SRM. Finding the key tools from literature and identifying the current state of operations enabled suggestions to the organization of how SRM could be employed.

The overall purpose was *how SRM can empower the purchasing and supply management in a global manufacturing company.* In order to enable deeper understanding, achieve the purpose of the study and guide the authors through the process, three research questions were developed. These will together give an answer to the main purpose.

1. **What are the current operations of managing suppliers like?**
   This question will give an answer to the role of SRM in the company's purchasing management and the current processes, it investigates where there is room for improvement.
2. **What are the most relevant SRM tools and processes to manage suppliers?**
   This question will give an answer to what are the best practice, the management principles of SRM and the power of SRM. It will further study how and with what tools improvements can be made.
3. **How can SRM activities be enhanced in order to gain process efficiency and generate value for the case company?**
   This question will contribute to the potential of SRM in the case company and how it could improve process efficiency and generate value. It further provides actual improvements, what can be done and where, which will originate from research question 1 and 2.

1.4 Delimitations

The boundaries of this thesis were thereby to only study the case company and the view of the purchasing function. The main focus was to understand their current state of employing SRM and what literature suggests as best practice. The primary focus is on how more and/or new value can be realized from suppliers, what interaction points could be made more efficient, removed or totally changed. Thus, the focus is on finding value through improvements after the contract is signed with the suppliers and without changing the initial price.

Since SRM is much about relationship management, much emphasis was placed on how relations are and should be handled as well as what happens at different interaction points between the company and the supplier. No focus was put on improving the supplier segmentation and prioritization since an elaborated model and process for that exist. Furthermore, the study was limited to the existing supply base, thus potential suppliers, supplier evaluation and major parts of the strategic sourcing process were left out. However, segmentation and prioritization from the strategic sourcing process are included as it lays the foundation for an SRM approach.

2 Method

This chapter describes the methodological approach that has been used during the study, which includes the concept of a single case study and the used abductive approach. Further, the empirical data collection through qualitative semi-structured interviews is described. The study's validity and reliability are also presented in this chapter.

2.1 Approach to Study

The approach to the study is described here and it contains a description of the single case study, which was carried out with an abductive approach. Further, the research process and literature search is also presented.

2.1.1 A Single Case Study

A single case study has been performed at a manufacturing company in order to study how supplier relations were managed and evaluate this compared to the emerged phenomenon of SRM to further answer the stated research questions for the thesis. Conducting a single case study is according to Eriksson and Kovalainen (2008) most beneficial when it comes to evaluation of a phenomenon, in a restricted time frame as well as when limited resources are available. From carrying out a single case study, researchers can build theories by confirming, challenging as well as prolonging theories that are already established (Eriksson and Kovalainen, 2008). This method allowed the researchers to dig into the subject, which had room for improvements. Consequently, there were possibilities for contribution to the SRM field, it resulted in the ability to challenge and also extend the theories.

2.1.2 Abductive Approach

The study was carried out with an abductive approach, which regards a combination of theories and research strategies. In this approach, the researcher handles the empirical data and the theories at the same time, which concede the understanding to emerge throughout the process. An abductive study is a combination of inductive and deductive approaches (Alvesson and Sköldberg, 2008). In the case of a deductive study, it is about testing theories with the empirical data, and an inductive study instead aims to generate theories that are based on the empirical data (Bryman, 2011). However, in the case study, the abductive approach of combining was determined to be most appropriate as interviews were held over time and based on their outcome further literature was reviewed to match and truly understand. Further, the abductive approach is process-oriented and takes new observations into account during the study. Hence, inductive or deductive approaches going in only one direction were not appropriate. In *Figure 2-1* below an illustration of the process is presented.
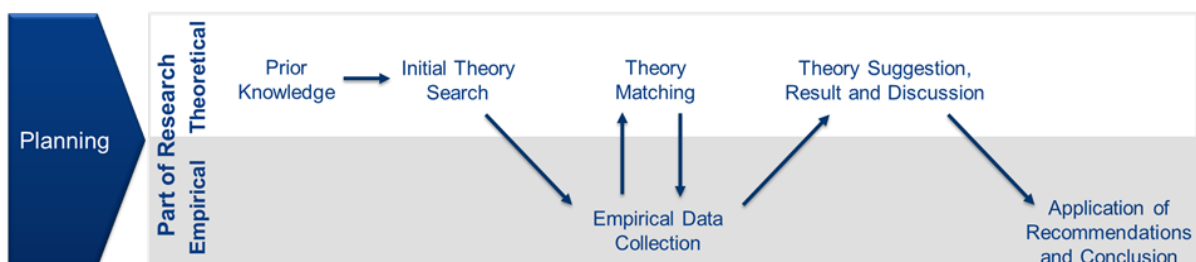
Figure 2-1, The abductive research process.

One of the key reasons behind choosing an abductive approach was that there is both much and little said about the topic of SRM, hence a need to combine theory and empirical data emerged. In one sense there is a large amount of research done on SRM in terms of buyer-supplier relationships, supplier segmentation, measurements and supplier development, which all are claimed in the thesis to be a part of SRM. However, SRM as a management area has not yet fully developed, thus there is no standard definition nor consensus of what it is and how it is done in detail. SRM is thereby understood and treated in different manners by different authors. A further reason was that the interviews provided ideas and directions of what to read and study further in order to connect the current operations to the most relevant tools from an SRM approach. To identify the most beneficial suggestions for improvements of SRM activities in the case company, the literature was hence continuously studied while the empirical data were performed. Altogether, using the abductive approach made it possible to combine theory and the empirical data with the purpose of getting better insight and comprehension. Lastly, it is a preferred method when the collection of information is based on a small number of people and the study is of a qualitative character, with focus on the human factor instead of raw data (Blomkvist and Hallin, 2015).

2.1.3 Literature Study

Literature research was conducted in order to understand what tools and managerial implications are presented in previous research. The databases provided by Chalmers Library Summon, Scopus, and Google Scholar were used for the collection of the literature. The Journal of Purchasing and Supply Management was further extra carefully searched through since it is a leading journal that focuses solely on the purchasing and supply management area. Scientific papers, books, reports, and other publications were sought after, to be able to find relevant literature for the interconnection of the study's purpose. Several of the references used were also founded in the database Google. Keywords that have been used in the article search are namely: *supplier relationship management, SRM, procurement, segmentation, relationship management, performance measurement, supplier development* and similar. Moreover, a synthesis of the literature was conducted through a systematic approach by reviewing different frameworks of SRM and is presented in *Section 3.8*.

2.2 Collection of Empirical Data

In the study, empirical data was collected through qualitative interviews. The process of selecting and conducting interviews in order to constitute empirical data is further presented below.

2.2.1 Qualitative Interviews

Qualitative interviews were used in order to collect information regarding the company's processes and their utilization of SRM. A qualitative study emphasizes quality, and at the same time investigates in more detailed in-depth interviews. A quantitative study, on the other hand, is more general and deficiency deepness (Lewis, Thornhill, and Saunders, 2016). This thesis applied qualitative method since the purpose is to find in-depth data through performing semi-structured interviews. It allows the researchers to collect more detailed information regarding the phenomenon of interest, which in turn provide more valuable results (Marschan-Piekkari and Welch, 2004). Qualitative interviews were conducted with employees who interacted with or worked with supplier interfaces, hence are connected to how SRM is executed in the case company. The interviewees had different backgrounds, insights and business perspectives, which resulted in a lowered risk of getting a biased perception. Further, it gave a clarified

picture of the current state of working with SRM as well as where there was room for improvement and development. All in all, qualitative interviews were utilized in order to get in-depth insights regarding the company's current state of working with suppliers and future possibilities of implementing SRM.

2.2.2 Semi-Structured Interviews and Motivation of Process

Within qualitative research, semi-structured interviews are the method that is mostly used as it gives the flexibility of adapting to situations, which can make the outcome more useful. Furthermore, there are a consistent focus on the respondents' feelings, experiences, and opinions. The structure of the interviews makes it easier for the respondents to feel more free and convenient to be able to get insight in things the respondents consider as both relevant as well as important (Bryman, 2011).

Semi-structured interviews were used during the collection of data. The interviews started with more open questions that gradually developed into questions with more details. This allowed new ideas to arise during the interviews, which would not have been the case if a prepared template was strictly followed. A semi-structured interview will, however, need a template for the guidance of the researchers (Bryman, 2011). By starting the interview with general and common questions could facilitate the respondent to feel less exposed and more convenient. In turn, it results in more natural communication (Patel and Davidsson, 1994).

All the interviews had the same structure, where the same framework with some standard questions was used. The reason behind this framework was to make sure to receive as reliable data as possible, improve the quality, ensure the consistency, improve the comparability of the interviews and also to provide the same preconditions for every interviewee. Some adjustments were made in order to match and adapt to the interviewee and his/her background and specialization. This was done in order to have the same base to able to compare the collected empirical data in an equivalent way. Several interviews were performed with some of the interviewees, all of the interviews that took place were unique and new empirical data were gathered in each of the interviews. In the manuscript, an interview guide with standard questions are presented in *Appendix A*, with different fairly general questions was prepared based on the research questions. In addition to the interview guide, questions adapted to what the interviewee said as well as from his or her position in the company were developed during the interviews.

2.2.3 How the Interviews were Conducted

The study was performed by two researchers and interviews were conducted with one interviewee at a time. During the interviews, one researcher was responsible for asking all the questions, whereas the other researcher was responsible for taking the notes. This approach was conducted in order to avoid as many differences and variation as possible when collecting data, and further make sure that all interviews were executed in an as equal way as possible. However, in every interview, the key focus was on the interviewees' interactions with suppliers, and as their roles and interactions differed, so did also the supplementary questions.

To make interviewees feel comfortable and be able to speak freely, the interviews were not recorded. However, this resulted in some difficulties and obstacles to the process which slightly reduces the reliability. During some interviews questions sometimes needed to be repeated which resulted in a slightly different answer than previously provided.

2.2.4 Selection of Interviewees

Due to the topic of SRM being overarching and that people in the purchasing department of the case company interacts with suppliers in many different manners, it was of high relevance and importance to interview a broad spectrum of people. Among others, the Purchasing Director, Director Indirect Material, Global Category Managers as well as Business Unit Purchasing Group Managers were interviewed. Interviewing people with different backgrounds and positions enabled getting the holistic view of the processes and interactions with suppliers. It further provided a comprehensive result from the collection of empirical data. The interviewees were selected in order to obtain information on the current state of operations when working with suppliers as well as if and how SRM approaches were used by them. Further, employees' insight contributed to ideas from their perspective of what can be done within SRM in their area of expertise to improve future activities and action. To create an overall picture, interviewees with different insights, backgrounds and levels within SRM were selected. Every interviewee has been anonymized due to confidentiality, the type and length of interviews are presented in *Table 2-1*.

Table 2-1, Compilation of the interviews performed.

Respondent	Type of interview	Time (minutes)
R1	Face to face, information powerpoint + semi-structured	60 + 90
R2	Face to face, information powerpoint + semi-structured	90 + 90
R3	Telephone, semi-structured	60
R4	Face to face, semi-structured	90
R5	Telephone, semi-structured	60
R6	Telephone, semi-structured	60
R7	Face to face, semi-structured	60
R8	Telephone, semi-structured	60
R9	Face to face, semi-structured	60
R10	Face to face semi-structured	45
R11	Telephone, semi-structured	45

In the beginning, it was necessary to gain knowledge regarding the function of the procurement process as well as how the case company was organized and structured, hence some power point presentation sessions were provided. Internal material from the company was accessed and furthermore annual report and the company webpage was explored. Interviews with the Swedish employees were conducted in face-to-face meetings, whereas the interviews with employees that were located abroad were done over the telephone via Skype due to the geographical distance. The interviews by phone were generally experienced to be less rewarding due to the lack of dynamics and interaction, which comes naturally in a physical meeting. Furthermore, the language barrier when not speaking one's native language might have had an influence on the dynamics in the supplementary questions over the phone. Which makes this an experienced downside of the flexibility in semi-structured interviews.

The interview structure was predefined as described, however, sometimes interviewees chose to focus in another direction connected to his/her expertise area, during the interview. This resulted in a wider understanding of the purchasing environment and also led to new, non-prepared, questions that came up.

2.2.5 Data Analysis

Analyzing the collected empirical data was done in a systematic way. Directly after an interview was conducted, the researchers together went through the notes in order to align interpretations and add supplementary notes. Due to no recordings, there was also a risk of missing out on details from the interview. However, this was minimized by reviewing after each interview. From the notes, the most important content and key points were summed up and given headings. These headings represented the key areas treated by the interview.

When the key areas and notes were definite, the researchers wrote a draft of what was later displayed in the empirical results. As some interviews were in Swedish, there was an additional process of translating what was said, hence the choice of words might differ from what the interviewee would have expressed. Moreover, some interviewees showed internal material, which was also used as an empirical basis. To improve reliability this work was always done shortly after each interview. Furthermore, in a few cases, some additional questions of clarification were sent over email.

Furthermore, all interviews were compared in order to find similarities, differences and matching consistent statements and subjects that were brought up. The dataset was analyzed by using information that was obtained from all the interviews in combination with the studied literature framework. The purpose of the analysis is to understand the current operations and compare them with the studied theories, in order to find improvement areas and suggestions for the company's processes within SRM operations.

Conducting the results was done by reviewing all collected data from the empirical study in order to summarize the current state of operations, which gave an answer to the first research question. In a similar way, the results for the second research question was summarized and synthesized from the overall literature findings with a focus on key tools and practices of SRM.

The observed current state of operations was combined with the tools and practices from literature, which provided a discussion regarding how SRM could be employed and contribute with additional value to the case company. The observed problem areas were discussed and improvement suggestions could be provided with guidance from the literature findings.

Furthermore, a recommendation was provided. This was made systematically based upon the key areas from literature and the observed operations and improvement areas were grouped according to this. The recommendations were further summarized in a table in order to get a quick overview and point at the major observed issues and their improvement suggestions. Each suggestion was shortly elaborated on in text to give an understanding of the possibilities. Additionally, an assessment of what value can be gained from the suggestions was made in order to concretize value.

2.3 Research Validity and Reliability

There are two main different quality criteria when it comes to qualitative business research, which is reliability and validity (Leung, 2015). Reliability is the degree to which a measure or an assessment tool produces results that are stable and consistent (Bryman, 2012). Reliability is also whether the research accomplishes the replicability, where another researcher can conduct the exact same research and also compare the results. To be able to achieve the reliability aspect, the procedures need to be documented with detail (Bryman, 2011; Leung 2015). In order to enhance the reliability, the methods, as well as procedures in this research,

have been documented. The prepared questions and protocol were used in order to improve reliability and consistency in the empirical data collection. The used approach was structured and the interview procedure was repeated in all interviews and it was always two persons interviewing. However, even though a systematic approach was used, the replicability of the study may be difficult as the empirical data collection is highly dependent on the individuals who were interviewed. This, since their background, previous knowledge, experience as well as the extent to which they are aware of SRM, differ between individuals but also change over time. Unfortunately, the interviewees' roles in the company are not presented due to confidentiality, which reduces replicability.

The validity is about how the tools, data, processes as well as the selected methods are appropriate and also that the research questions have been properly answered (Bryman, 2011; Leung 2015). The validity criteria have been fulfilled by selecting suitable methods and consistently worked in a systematic way throughout the thesis. Furthermore, reliable sources from the library database and journals of good repute were used when conducting the literature review. Also, in the empirical data collection, relevant interviewees with various backgrounds, business perspectives, and insights were interviewed.

3 Literature Review of SRM

This chapter provides a theoretical foundation of procurement and SRM. It begins with the role of procurement and how it has become a strategic company function. It includes segmentation of suppliers, how to manage different types of relations, performance measurement and supplier development. Moreover, definitions and frameworks of SRM are presented and lastly, the underlying mindset of a holistic approach to SRM is presented in this chapter.

3.1 The Role of Procurement

SRM is a management area, which is based on the procurement function of a company. In this section procurement as a strategic function and the purchasing process is described.

3.1.1 Procurement as a Strategic Function

Procurement is a function that involves all processes of buying that occurs in a company. It refers to all activities that are necessary to manage supplier relationships so that activities are aligned with the own company's overall interests and strategies. It is of high importance to the structure and continuously improves the process of procurement within and between the organization and its suppliers so that primary and supporting activities can be secured in a favorable way (van Weele, 2018).

The role of procurement has become increasingly important in a company context. According to van Weele (2018) analysis of manufacturing firms, cost structures show that the total value of procurement, namely the purchased goods and services of the cost of goods sold, is 60-80%. Procurement being of high relative financial importance for most companies emphasizes that the operations on a company's supply side have a large impact on the efficiency and effectiveness of the firm (Gadde et al., 2011). Meaning that a firm's performance and capacity to generate profit is highly dependent on the ability to handle its supply side. This is agreed by Kähkönen and Lintukangas (2012) who argue that strategically managing suppliers highly correlates with achieving competitive advantage and business performance. Supplier management has become an increasingly influential success factor (Kähkönen and Lintukangas, 2012).

As procurement has become increasingly important (van Weele 2018), its role has drastically changed over the years. From simply buying goods and services, it has turned into overseeing a set of management functions (den Butter and Linse, 2008). The procurement function has for a long time not had any strategic significance connected to it, it has mainly been reactive by fulfilling requests from other company functions (Moeller et al., 2006). It is highlighted that most firms' awareness of the strategic importance of purchasing has increased, and procurement is now viewed as a function with a major impact on the overall business. This has further led to the procurement function working closer with selected suppliers (Moeller et al., 2006). Companies nowadays look beyond single transactions and short-term costs to focus on strategic transactions where more attention is to the broader picture and costs over time, which raises both challenges and opportunities (den Butter and Linse, 2008).

3.1.2 The Procurement Process

Defining the buying process van Weele (2018) deems that it includes determining needs for purchase, supplier selection, settling the price, specifying terms and conditions, issuing of contract or order as well as following up to ensure proper delivery and payment. Purchasing is

often viewed as a linear process consisting of six steps; defining specification, selecting a supplier, contract agreement, ordering, expediting and evaluation (van Weele, 2018). This linear process is helpful in simple purchasing projects. However as purchasing has evolved into more complex sourcing projects, van Weele (2018) further presents the extended purchasing model, which can also be referred to as the circular purchasing model, see *Figure 3-1*. This extended model provides guidance when buying in complex category sourcing projects, hence more than individual products or services.

This model is more elaborate than the linear process and consists of three major phases; source, purchase and pay, where all have more detailed steps for a more thorough process. The process starts with spend and demands analysis, followed by a supply market analysis and development of sourcing strategy before the supplier is selected and contracting is made and implemented. All contracts are documented in a digital contract library which gets accessible for the relevant managers placing orders. These steps form the strategic sourcing phase of the process. When the contract is in place, buyers can search for products or services in the catalog, prepare purchase requisition to get approval from the budget holder and conduct the purchase order to the supplier. Further, follow up on order fulfillment and on-time delivery is done in the operational purchase phase. The third phase, payment, is where the invoice is received, checked and paid to the supplier (van Weele, 2018).
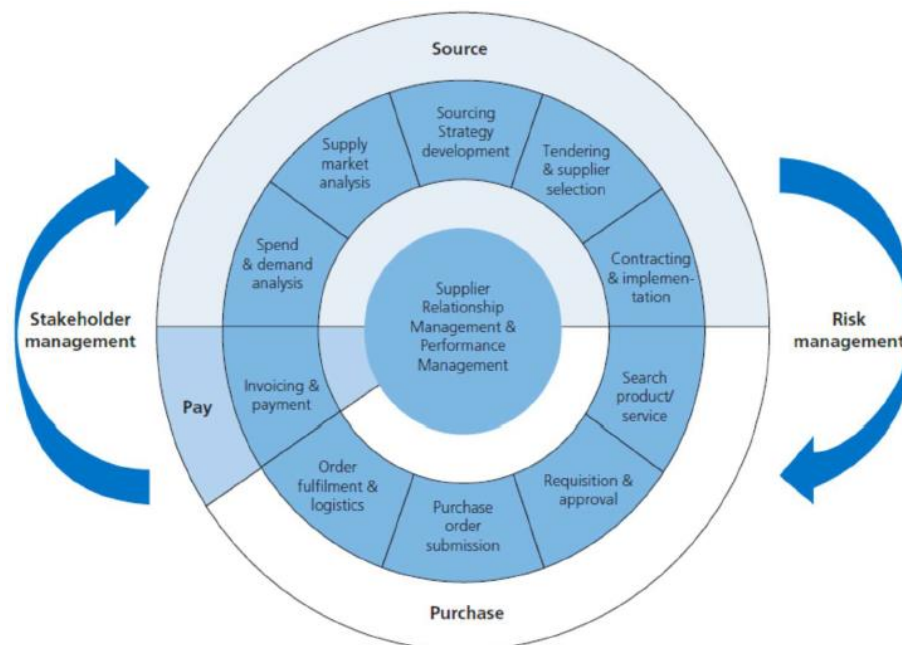
Figure 3-1, The extended purchasing process (van Weele, 2018).

3.2 Segmenting Suppliers and Classifying Purchased Items

Understanding which suppliers are important for company success is crucial, but also to understand why they are of importance. The segmentation principle utilized by a company is thus of great significance. Not only to intervene with the suppliers that have the greatest potential and ability to impact, but also as it decides what type of relationship and interaction that is necessary or beneficial with certain suppliers (O'Brien, 2018). In this section, selected parts of strategic sourcing are described starting with Kraljic's basic portfolio approach followed by the process of segmenting and prioritizing suppliers.

3.2.1 Purchasing Portfolio Models

Classification through purchasing portfolios was first presented by Kraljic (1983), who divided purchased goods into four categories based on their supply risk as well as the potential benefit (Wen et al., 2011). A large part of the subsequent research is based upon this model by Kraljic (1983).

The Kraljic Portfolio Matrix employs a 2x2 matrix, see *Figure 3-2*, and consist of four quadrants in order to categorize purchases with accordance to a range of internal, product, profit as well as operational factors together with external and supply market conditions. The y-axis represents the importance of the purchased item, while the x-axis represents the supply risk (Kraljic, 1983; Gelderman and Semeijn, 2006). Purchase importance can be measured by criteria such as profit impact, purchasing volume, and material cost. The supply risk has different dimensions, such as both long and short-term availability, the number of suppliers with potential as well as the structure of the supply market (Gadde et al., 2011). The four quadrants in the matrix by Kraljic (1983), employs four categories of suppliers, which are called strategic items, leverage items, non-critical items as well as bottleneck items.
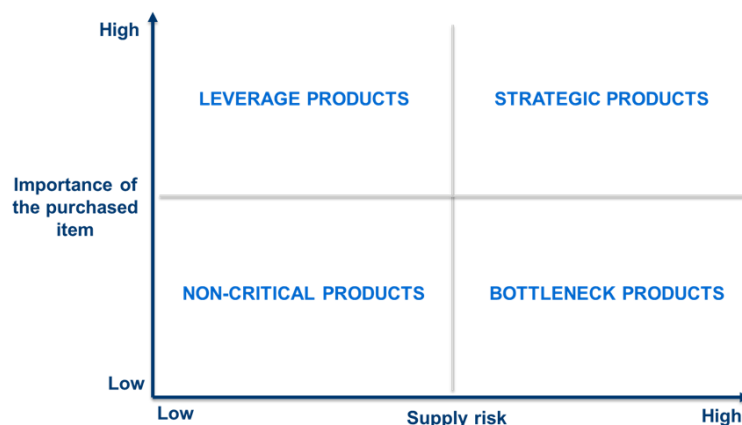
Figure 3-2, Kraljic matrix (Kraljic (1983), comp. by authors).

Leverage items category is found in the top left corner of the matrix. Items within the leverage category are characterized by different criteria, among others: supply that surpasses the demand, items with low supply risk, high impact on the profit and also that these items are available within a competitive market. Within this category, the price is generally of the highest concern.

The second category is *strategic items*, in this category, the price is one of many factors that is important and should be taken into consideration. Items within this category have a high-profit impact, mostly scarce components and high supply risk where these items are difficult to source. Additional factors that are of high importance are long-term availability and quality.

The next category is *non-critical items* that are included in daily purchases when it comes to supplies with low risk as well as a low impact on the profitability. Non-critical items are for the most easily sourced.

Bottleneck items are the last category that represents items with low profitability impact and has a high supply risk. Bottleneck items are most often problematic and difficult to source because of different reasons, a couple of examples are poor quality and market shortages.

All of the four categories require a distinguish purchasing approach, where the complexity needs to be in proportion to the strategic implications. Market decisions regarding strategic items will need a lot of analytic techniques that include for example market and risk analysis.

Utilizing a purchasing portfolio model approach is important for companies to utilize due to many reasons. Gelderman and van Weele (2002) present the synergy benefits as well as leverage for a company when using Kraljic's purchasing portfolio as a tool, due to the coordination regarding the sourcing patterns. Also, the illustration of the possibilities when it comes to differentiated purchasing and supplier strategies. Montgomery, Ogden, and Boehmke, (2018) present similar arguments regarding the benefits with Kraljic, such as improving internal cross-functional coordination and diversify the dependencies regarding supplier power (Montgomery, Ogden and Boehmke, 2018).

3.2.2 Segmenting and Prioritizing Suppliers

As a part of strategic sourcing segmentation principles of prioritization can be used in addition to the Kraljic's matrix. O'Brien (2018) presents supplier segmentation as one of the seven SRM facets. It is dividing the supply base into different groups of suppliers, which in turn allow firms to decide and apply the different types of interventions depending on the advantages and value for every group. The criteria for segmenting suppliers are unique for the organization and these should be developed and established with accordance to what the organization wants to achieve. Segmentation criteria work at two levels. Firstly, it defines the important things within the supply base that is connected to the organizational goals, and thereafter provides means to be able to assess the suppliers against these organizational goals (O'Brien, 2018).

O'Brien (2018) has divided the segmentation into three classifications: *Transactional suppliers, Important suppliers, and Strategic suppliers*. In *Figure 3-3*, the *transactional suppliers* can be found in the base of the triangle. These suppliers do not require any special intervention besides the immediate transaction that is needed. In the middle, more *important suppliers* are found, these suppliers that require some degree of management or intervention, due to necessity or the advantages to do it. In the top *Strategic suppliers* are found. These are critical suppliers or suppliers that are of strategic importance for the organization in some way, where a close relationship is required in order to protect the business. Sometimes, the supplier can have the potential that can help the organization understand their own goals and together achieve greater value. As can be seen in the illustrated pyramid model of importance there are more suppliers in the bottom than the top, emphasizing that only a few selected ones are strategic and need careful attention.
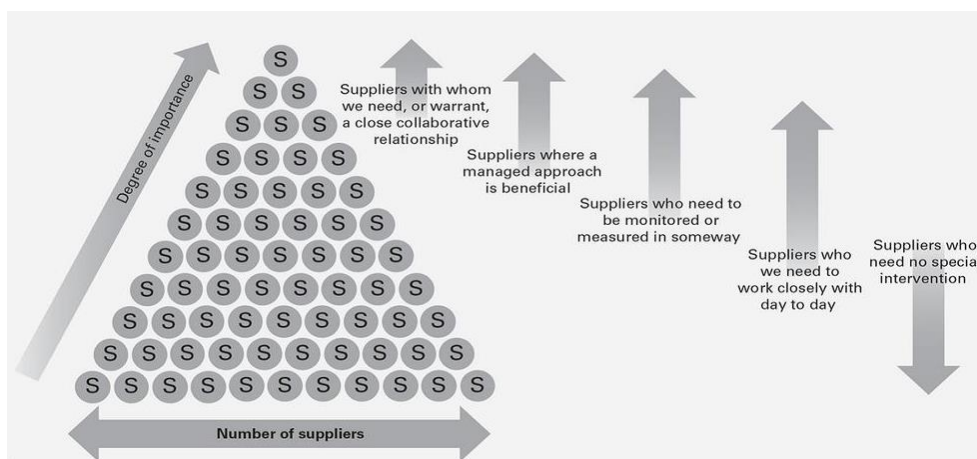
Figure 3-3, Supplier segmentation pyramid according to importance (O'Brien, 2018).

Lambert and Schwieterman (2012) present their model for segmenting suppliers, starting with identifying the criteria for segmenting suppliers. Criteria brought up were among others, growth and stability and service level necessary. The appropriate criteria must fulfill the specific needs and orientations of the firm. In their framework, there is a team who decides which criteria to use and the way suppliers are evaluated. Each segment team reviews their segmented suppliers in order to decide the role the segment of suppliers has within the supply chain. A segment team works with their segment of suppliers to be able to identify any improvements and opportunities (Lambert and Schwieterman, 2012; Hughes, 2010).

3.3 Managing Different Types of Relationships

To achieve corporate goals the core of the SRM philosophy lies in ensuring that the right approaches are applied with the right suppliers (O'Brien, 2018). Managing relationships can be done in as many ways as there are suppliers, however, it is in research purposes generalized to certain types based on the previously described segmentation criteria. In this section different types of relationships, relationship-based interventions and core values when building relationships are described.

3.3.1 The Importance of Relationships

With limited resources in a company, the vast majority of suppliers should receive minimal attention so that resources can be directed to working with the suppliers who can contribute to realizing worthwhile and significant value from the individual suppliers and further with the whole supply base (O'Brien, 2018). SRM requires an approach that is selective. No organization is able to have a close relationship with all of their suppliers, many of the suppliers only need to produce what is needed, delivering on the right quantity at the right time to the agreed price. Other suppliers may need some sort of intervention in order to keep everything on track, while a small number of other suppliers can contribute to greater value for the business, which may require a close relationship. There are many different types of possible relationships. The challenge is to adopt the right relationship with the right supplier as well as for the right reasons where both parts understand what it means (O'Brien, 2018).

O'Brien (2018) describes that there are two dimensions of relationships. The first one being the nature of it, what is done, how it is done, but also what is acceptable and expectations in terms of behavior. The second dimension is about managing and understanding the interaction points between the parties, so-called stage-managed interfaces so that operations are pursued with a common purpose and the people involved are able to support that purpose. When aiming at a company-wide SRM approach, where there may be several interaction points across functions this is extra important. The supplier needs to be viewed in the same way by all people in the company who interact with the supplier in order to present a united and aligned front externally and not sending mixed messages. If not being aligned, suppliers are not late to figure out how to spend their time and resources in the best way (O'Brien, 2018).

3.3.2 Different Types of Buyer-Supplier Relationships

Saccani and Perona (2007) present that there does not exist a "one best way" approach when it comes to the buyer-supplier relationships, but instead claim that there is a "best way" for every specific interchange context. A contingency model has been proposed in order to be able to shape and manage buyer-supplier relationships within a manufacturing context. Three different types of buyer-supplier relationships have been presented by Saccani and Perona (2007).

The first one is *traditional relationships* where the customers and suppliers' collaboration and interaction are at a low level. The suppliers are obliged to guarantee the quality of the product as well as customer service, while there is no investments are put into the relationship (Saccani and Perona, 2007). Organizations are constantly exploiting their bargaining power and changing suppliers can be done at a low cost (Bensaou, 1999). The organization often adopts a short-term relationship and is at the same time threatening to leave (Helper, 1991).

The second one is an *operational relationship* that is suitable when there is a necessity to reduce the costs, and that is related to the exchange of a high amount of goods with high frequency. Effective information sharing and operations planning is crucial if the products have a high added value or if the transportation or handling criticality (Saccani and Perona, 2007). Some specific management techniques are implemented at the interface between both suppliers and buyers, examples of these are frequent deliveries, continuous replenishment as well as data sharing (Stuart and McCutcheon, 2000). The buyer will most of the time not invest in any specific assets because of the high amount of organizations that compete within the supply market (Saccani and Perona, 2007).

Lastly is the *evolved partnerships* which are characterized by a high level of collaboration as well as continuous interaction. This kind of relationship arises when products or components need to be jointly developed. Close logistic integration is recommended, in order to synchronize both the supply and demand as well as reducing transportation, administrative and warehousing cost (Saccani and Perona, 2007; Zinn and Parasuraman, 1997). Investments into evolved partnerships can be needed in order to be able to support such a high degree of collaboration and integration (Bansaou, 1999). Moreover, having a common long-term objective and mutual trust is crucial for an evolved partnership (Saccani and Perona, 2007; Lambert et al., 1996).

Buyer-supplier relationships can be managed in different ways. There are however two fundamental approaches that can be used, arm's-length and long-term collaboration. When it comes to the arm's-length relationships, there is a low level of contact between the supplier and buyer, hence more focus is put on short-term interactions. While the long-term collaboration is more proactive, and both buyer and supplier are having close communication and high contact. The objective is to create additional surplus value within the relationship. Commitment and trust between both parts are significant for long-term collaboration (Parker and Hartley, 1997; Cox et al., 2003; Wen et al., 2011). The objective with arm's-length relationship is generally to decrease costs directly and increase profitability. The desired outcome with long-term collaboration is a win-win relationship where both buyer and supplier can benefit from, in terms of close information transparency and joint developments (Lambert, 2008; Wen et al., 2011). Hughes (2010) instead introduce different types of buyer-supplier relationships in the sub-process of supplier portfolio governance, where an organization regularly evaluate and assess what kind of relation the organization wants with their different suppliers. Consequently, which supplier to invest in, to form and maintain a close relationship with, and what kind of opportunities to pursue with a supplier who supports the enterprise strategic goals (Hughes, 2010).

Furthermore, Park et al. (2010) classify purchasing strategies into two types. The first one is a competitive approach, which is based on competition among the suppliers, where buyers can acquire goods for a minimum price. The second one is called a cooperative approach, which corresponds to the long-term collaboration that was mentioned above by Parker and Hartley,

1997; Cox et al., 2003; Lambert, 2008, where the buyer and supplier align in a strategic relationship and create a close relationship in order to achieve a long-term goal (Park et al., 2010).

3.3.3 Close Collaboration in Relationships

Hughes (2010) emphasizes the importance of maximizing the collaboration and coordination for SRM processes, where the sub-process of *joint business planning* is a part of the process. This process regards individuals who represent different business areas and functional areas within an organization and a supplier jointly exchange information such as; business plans, priorities, capabilities, opportunities and jointly analyze how to collaborate to be able to create value for both parts. However, much energy and resources from the organization are needed when seeking to develop a collaborative relationship (O'Brien, 2018). The sub-process called *Coordination of daily operations* is an additional part that is significant for the whole process, where different on-going activities between the suppliers and the organization are continuously monitored and also supported to ensure the coordination throughout the various functional areas as well as the groups that have to interact (Hughes, 2010).

Moreover, collaboration is associated with a product and is an enabler for integration. Optimization of the supply and value chain networks occurs through improved relationships, connection, collaboration and sharing both when it comes to internal and external partners (O'Brien, 2018). This is agreed by Gradinger (2009) who states that many leverages can be discovered when the relationships and interfaces within the value chains are improved and worked on. There are a lot of obstacles that can restrain value chain network and supply collaboration which among others include unclear goal or benefits, lack of trust and commitment to information accuracy. Park et al. (2010) also described the importance of collaboration in order to gain a win-win situation between both parts, role, and profits need to be shared through modularization. Some important criteria at the collaboration level contain commitment, trust, information sharing, and communication.

3.3.4 Supplier Interaction Models

Suppliers are of different importance and should not all be treated the same way as resources are limited (O'Brien, 2018). Schuh et al. (2014) have in their framework for SRM suggested a supplier interaction model in which specific recommendations are provided on how to act depending on where the supplier is categorized. Utilizing the relationship-based approach is done to motivate suppliers to behave in such a way that the company needs are met. The categorization is done based on two axes, namely performance, and strategic potential.

Evaluating performance can be done through several variables, however for the buying company, what matters on a highly aggregated level are time, cost and quality. Managers attention is suggested to be at the suppliers that really matters, not the full supply base. These are the top performers who are most likely to be able to shape the company's future and contribute to competitive advantage. However, they are not the only suppliers that really matter, also underperforming suppliers need attention and action. This, since they may drag the whole company down through using and exploit valuable resources that could be used better.

Strategic potential, how relevant the supplier is in relation to the company overall strategy, is more complex and not commonly measured. It is however suggested to evaluate through several indicators to understand which suppliers are key to gain competitive advantage. The indicators are described to be growth, innovation, scope, and collaboration. Growth refers to

the capability of improving the company value proposition. Innovation implies the suppliers' capabilities of innovation. The scope of the supplier relates to if the supplier is relevant across business units, and finally collaboration refers to the suppliers' mindset of collaborating and leveraging own resources effectively. Schuh et al. (2014) expect that about two percent of suppliers are of high strategic potential and about eight percent are of medium strategic potential. This means that about 90 percent of the suppliers have very limited strategic potential. It is thereby argued that the default strategic potential of suppliers should be low.

These two axes result in a two-dimensional supplier segmentation into three clusters, see *Figure 3-4*. The segmentation model is further divided into nine types of relationships with implications for how to interact depending on supplier category, further described below and illustrated in *Figure 3-5*.
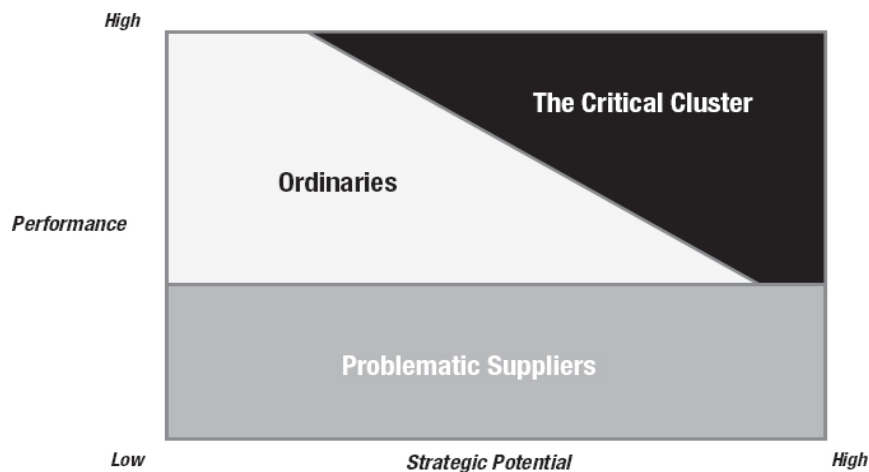
Figure 3-4, Segmentation clusters (Schuh et al., 2014).

Most suppliers are assumed by Schuh et al. (2014) to be in the center to the left in hence have average performance and mature business relations, these are in the segmentation model called the *Ordinaries*. The ordinaries supply with common products could often be bought from several other sources. In the *Ordinaries* cluster, there are three categories of suppliers:

- *Harvest* suppliers who are highly productive but should not be forgotten.
- *Sustain* suppliers who are worthy of continuous improvement even though they do not need major fixes nor significant investment.
- *Improve* suppliers whose shortcomings need to be addressed in order to make the supplier solve their issues and become a *Harvest* supplier.

The *Critical* cluster, consisting of the few most important suppliers that have the most to offer and are worth spending time and attention to. For these suppliers, the relationship needs to be taken good care of through deep trust, mutual dependence and transparency as keys. These suppliers may enable unlocking competitive advantage, innovation and risk mitigation. There are three categories of suppliers belonging to this cluster, namely:

- *Integrate* suppliers who are worthy of commitment and are genuinely integrated to work together.
- *Influence* suppliers are the few suppliers that deliver a nearly perfect product, which contributes to a potential of innovation from collaborating. Their relationship should be managed carefully as mismanaging could result in falling behind competitors.

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- *Invest* suppliers have a promising capability and provide products that may become game changers, hence they are of high strategic importance. They are however struggling with some basic areas which need to be fixed before they potentially can become *Integrate* suppliers.

The final cluster, the *Problematic* suppliers, have two things in common, they have low current performance and significant care and risk management are needed. The key challenge here is to understand and assess the strategic value the supplier can bring to the company, to make the supplier feel encouraged to perform effectively. To do so, immediate decisions and assessment of which category is applicable as they require different action is needed. The categories are:

- *Mitigate* suppliers is likely to be replaced by more promising ones if they cannot improve. Relationships do not always work out as planned and even though it may be known that a relationship is ending it should still be treated with openness and clarity while still working together. There is a need for immediate action regardless of the outcome, either how to improve or a contingency plan for replacement.
- *Develop* suppliers have operational problems, though they have slightly higher strategic potential than the vast majority of the suppliers they could become interesting. Their poor performance needs to be addressed and joint opportunities need to be identified.
- *Bail Out* suppliers need to stabilize the performance as the situation can threaten supply. If a supplier relationship ends up here, which is rare, it should be looked upon as a temporary step towards improvement.
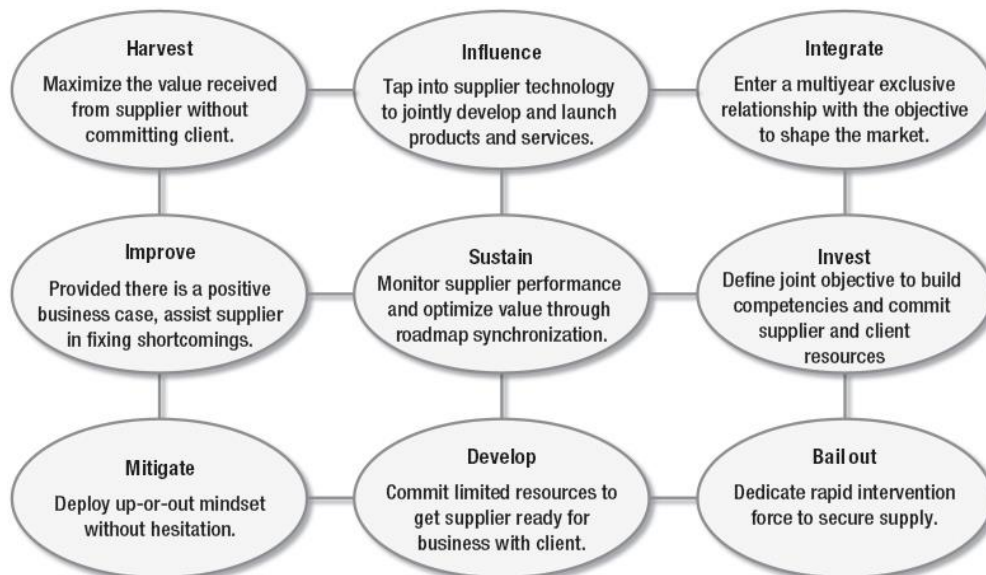
Figure 3-5, Segmentation clusters (Schuh et al., 2014).

Supplier performance varies over time, hence their position in the nine relationships matrix may change over time too. As the core of SRM according to Schuh et al. (2014) is about driving desired supplier behavior it is interesting to understand how this can be done. Increasing performance and moving upwards are always desired and perfectly possible, either with or without the buying company's help. Moving horizontally is strongly linked to the supplier's business and requires a significant change in the nature of the supplier. Hence, moving in this direction is not common and mainly possible when going from *Influence* to *Integrate*. Further, there is one possible diagonal move if a highly strategic supplier drops in performance and falls into a *Bail out* situation there are two options. Either the performance needs to be improved to

make the supplier less critical and justify its high potential, or the supplier needs to be made less critical and moved to the *Sustain* position. However, that requires the creation of a viable alternative supplier to take over the position. There is one further move that is possible, moving a *Mitigate* supplier out of the framework by terminating the business. If the job with the nine categories is done properly, no supplier should be in the *Mitigate* category for more than a few months. By that time, they should have been moved up or out. All these moves in the supplier relationship model are illustrated in *Figure 3-6*.
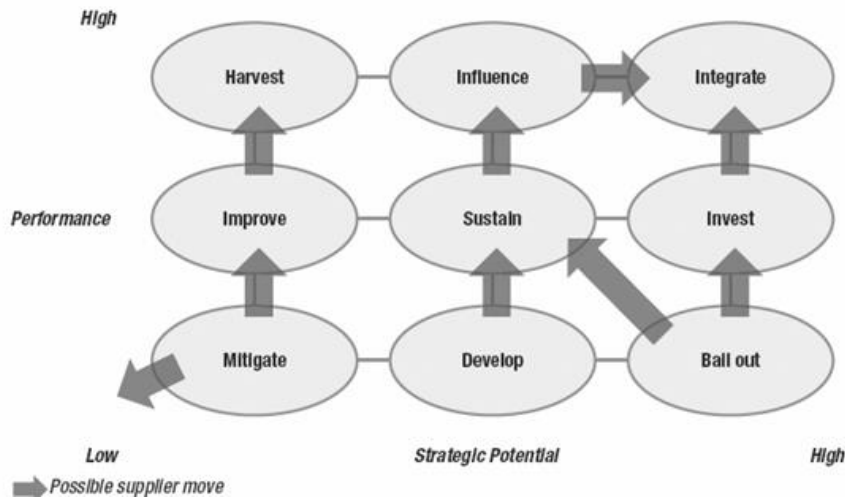
Figure 3-6, Movements in the relationship interaction model (Schuh et al., 2014).

Furthermore, similar to the interaction model by Schuh et al. (2014), Lambert and Schwieterman (2012) have suggested some implications on how to work with suppliers differently depending on their supply risk and potential to add value. It is not as extensive and detailed when it comes to relationship implications, it is, however, holistic and based on a more traditional sense of segmenting suppliers into Kraljic (1983) leverage, strategic, non-critical and bottleneck suppliers. The developed relationship implication guidelines indicate the level of engagement, depth of involvement and suggested amount of resources needed to contribute with how different segments should be managed. In the matrix with relationship implication guidelines, presented in *Figure 3-7*, the importance of purchase is named potential to add value, non-critical segment named tactical by Lambert and Schwieterman (2012) as they are suggested to be managed tactically. The overall implications based on segments are the following:

- *Leverage* – Work to achieve cost savings and value maximization
- *Strategic* – Declaring profitable long-term growth for both parties through maximizing performance, developing the relationship and have close supplier management.
- *Tactical (non-critical)* – Emphasize simplicity and efficiency through removing unnecessary complexity and freeing up time for other work.
- *Bottleneck* – Assuring quality of supply and continuity through removing risk and vulnerability and avoiding potential disruptions.
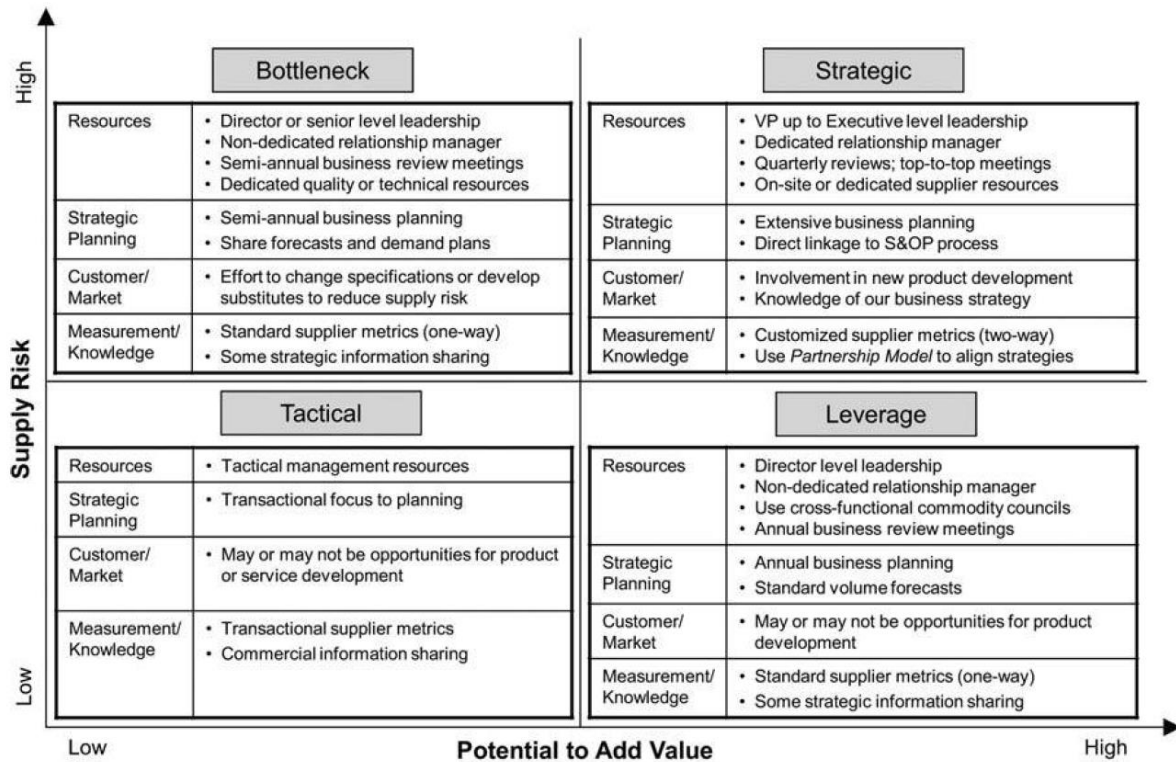
Figure 3-7, Relationship implication guidelines by segment (Lambert and Schwieterman, 2012).

3.3.5 Six Core Values when Building a Relation

A conceptual model has been developed by McQuiston (2001), in order to build and maintain relationships between manufacturers' representatives and their principals, see *Figure 3-8* below. The identified core values were: *shared goals and objectives, mutual dependence, concern for the other's profitability, open lines of communication, mutual commitment to customer satisfaction and trust.* The model also has four supporting factors: *Developing a personal relationship, investment of effort by top management, having professional respect as well as a commitment to continuous improvement.*
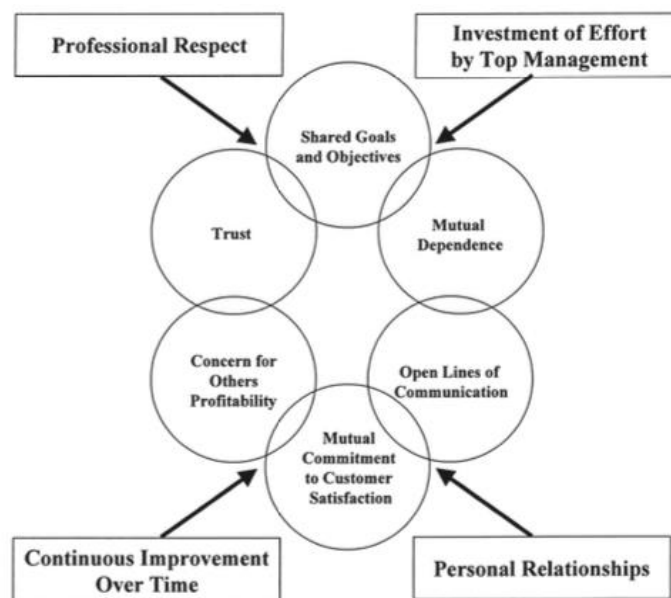
Figure 3-8, A model for building a relationship (McQuiston, 2001).

These six core values are tended to be more inter-organizational, while the four supporting factors are described as more interpersonal. Moreover, this model corresponds with earlier research done by Kanter (1994), which shows that effective relationships generated from a combination of inter-organizational and interpersonal factors.

Trust
Trust is a cornerstone when it comes to building a relationship, no matter what type of relationship it regards. Trust is mostly seen as an element related to a successful relationship according to literature (McQuiston, 2001). Morgan and Hunt (1994) state in their commitment-trust theory of relationship that trust is a vital factor within organizations when it comes to sharing information and enhanced satisfaction into a relationship (Morgan and Hunt, 1994). While Doney and Cannon, (1994) see trust as a cornerstone in order to establish and maintain a successful relationship. Lack of trust and commitment is according to Ellram, (1995) an obstacle for the long-term integration. Lee and Whang (2000) emphasize that some managers are unwilling to share important data with their exchanged partners because of lack of trust. Lack of trust can, in turn, cause fundamental problems to the integration process, since having mutual trust when it comes to the confidentiality as well as the future of the partnership is vital (Oghazi et al., 2016). In this regard, Moorman, Zaltman and Despade (1992) connect trust to the willingness to rely on an exchange partner where both parties have confidence for each other.

Mutual dependence
Mutual dependence in relationships occurs when one party is not able to achieve their objectives without collaboration and participation with the other party. The mutual dependence is supposing that both parts have a relationship that is symmetrical, and also that the power of both parties is closely related to a relationship that is interdependent. By having a balanced power relationship with engagement to the relationship, and the collaboration will most likely enhance since both parties create more value for each other. Mutual dependence is, therefore, an important factor when it comes to building relationships (McQuiston, 2001; Allan et al., 1994).

Shared goals and objectives
There is a prerequisite that both parties are aligned at the beginning of their relationship, in order to achieve a successful relationship. It is important to not solely focusing on determining their own goals and objectives regarding the relationship, but instead, ensure that the goals and objectives are clearly communicated with the other part as well (McQuiston, 2001). Weitz and Jap (1995) and Wilson (1995) point out that if both parties do not have the equal values, beliefs and practices, it will result in both parties being less likely to take advantages of the relationship.

Open lines of communication
Magrath and Hardy (1994); McQuistion (2011) emphasize the importance when partnering, which require interaction from different functions of both parties, to provide an increased satisfaction. In order to be able to achieve satisfaction, communication needs to be free-flowing and managed constantly between both parts. Furthermore, Weitz and Jap (1995) state that a firm that is interested in developing and elaborates the relations strive to have increased communication with their partners. Having more open lines of communication will result in increased trust and involvement between the parties.

Mutual commitment to customer satisfaction
A critical factor that is of high significance is that both parties must keep the requirements of the customers paramount, and also to make sure that necessary actions are performed in order to fulfill those needs (Anderson and Narus, 1999; McQuistion, 2011). Day (1995) also argue that no benefits can be achieved by partnering since both parts need to be committed to an alliance and the objectives that were intended. If both parties within the relationship are not aligned to satisfy the customers' need, then it is doubtful that the relationship can reach the level of success that was desired.

Concern for the other's profitability
Concern for the partner's profitability is also a key factor within a relationship. Weitz and Jap (1995) state the importance for parties to not solely consider the potential increase in profitability when entering the relationship, but also to emphasize the probability where the other party will receive the fair share of the profits. McQuistion (2001) present the importance to not only worry about the company's own profit but to also take their partner into consideration. Furthermore, understand that profit will not be obtained without engaging and putting effort into the relationship.

3.4 Supplier Relationship Management as a Concept

The concept of SRM is an emerging topic in recent procurement and management research, which has arisen from competitive pressures and has become a critical business process to maintain competitive advantage (Lambert and Schwieterman, 2012). In this section definitions of SRM is presented, followed by an introduction to the reviewed frameworks for SRM management activities.

3.4.1 Defining SRM

O'Brien (2018) discloses that SRM emerged as a philosophy around the millennium when companies began recognizing that huge value from the supply base could be unlocked by focusing on developing better relationships with the most critical and important suppliers. Moreover, Lambert and Schwieterman (2012) argue that it is possible to gain significant benefits from managing relationships with key suppliers. Further, it is shown that firm performance is improved by integrating operations with suppliers (Lambert and Schwieterman, 2012). SRM is described as a strategic and overarching approach of how to handle different types of supplier interventions to enable the own company to reach its goals (O'Brien, 2018).

SRM as a concept and subject of research has, however, no standard definition developed, hence it is understood and treated in different manners. In *Table 3-1* below some selected definitions of SRM is presented. It is mostly agreed that SRM is a strategic and holistic approach to manage suppliers, especially those that are important or critical to business (Hughes 2010; Park et al., 2010; Lambert and Schwieterman, 2012; O'Brien 2018). Generally, the interventions and relationship with suppliers are seen as strategic assets rather than only a cost center (Hughes, 2010). There is also a common understanding that the purpose of SRM is long-term relationships with the aim of enhanced value and mutual growth (Park et al., 2010; Lambert and Schwieterman, 2012; O'Brien 2018).

Table 3-1, Various definitions of SRM.

Reference	SRM Definition
O'Brien (2018)	The overarching strategic approach to determine and implement different supplier based interventions, including the development of collaborative relationships with the critical few suppliers who can make the greatest difference; prioritized against available resources, applied as appropriate across an entire supply base to maximize value to the organization, reduce supply chain risk and enable the organization to achieve its goals and enhance value to the end customer.
Lambert and Schwieterman (2012)	SRM is the business process which provides the structure of how the relationships with suppliers are developed and maintained SRM represents an opportunity to build on the success of strategic sourcing and traditional procurement initiatives. It involves developing partnership relations with key suppliers to reduce costs, innovate with new products and create value for both parties based on a mutual commitment to long-term collaboration and shared success.
Hughes (2010)	SRM is about the need to rigorously analyze when and how to leverage suppliers' assets, capabilities, and knowledge as a source of competitive advantage; and the resultant need to view and manage supplier relationships as a strategic asset, as opposed to merely a cost center.
Park et al. (2010)	An SRM system strategically aims for collaboration with suppliers, so that a company can develop a new product competitively and produce goods efficiently. Current studies on SRM are mostly related to purchasing and supplier selection viewpoints. The dimensions of the supplier relationship should be extended to long-term relationships with mutual growth.
Wen et al. (2011)	SRM should be predicated on purchasing goods and supplier segmentation by which to designate the key areas, and then according to different supplier categories and ranks to adopt corresponding purchasing policies in the areas of contract sign, payment terms, etc. In other words, the basis of SRM is supplier classifications and ranks.
Moeller et al. (2006)	Supplier Relationship Management (SRM) is the process of engaging in activities of setting up, developing, stabilizing and dissolving relationships with in-suppliers [existing suppliers] as well as the observation of out-suppliers [potential suppliers] to create and enhance value within relationships. The main task of Supplier Relationship Management (SRM) is to optimize the existing portfolio of suppliers.

Some authors have not explicitly defined SRM, however, they still provide a sense of the topic. SRM is according to Lintukangas (2011) viewed as the company's capacity and ability to manage their suppliers. Further, to fulfill its internal tasks and responsibilities regarding supplier relationships, in order to accomplish the desired result (Lintukangas, 2011).

Dash, Pothal and Tripathy (2018) argue that SRM is the backbone of Supply Chain Management (SCM) as suppliers today are not only the ones who supply goods. Instead, they in many cases act as strategic partners in the firm and the role of suppliers gets more significant within the value chain. SRM can be emerged as a global management network that involves skills and knowledge in order to enhance the supply chain performance and to meet both short- and long-term needs and requirements (Dash et al., 2018).

3.4.2 SRM Frameworks

According to Schuh et al. (2014) in the book *Supplier Relationship Management: How to Maximize Vendor Value and Opportunity*, SRM is viewed as holistic approach and encompasses all interactions between the customer and supplier. In their framework for SRM, it is emphasized on separating the suppliers that really matter from those who do not. Schuh et al. (2014) suggest a segmentation model based on performance and strategic potential and places suppliers in nine different types of relationships, which in turn is treated as three clusters. Their framework suggests treating suppliers differently depending on cluster and relationship type as described previously in *Subsection 3.3.4*. At the heart, SRM is about driving the desired supplier behavior based on the appropriate interaction model (Schuh et al., 2014).

Wen et al. (2011) believe that supplier management is one of the most important components of purchasing and supply chain management. They have developed a cycle framework for supplier management in which SRM is viewed as one of the five key fields. The other fields in the framework are supplier selection management, supplier quality management, supplier performance management, and supplier development management. When it comes to SRM the foundation is on supplier classification and ranks. Hence, purchasing policies and ways of working are adapted differently based on a strategic subdivision of suppliers to suit supplier categories and their ranks. The category classification is according to the importance of goods or the amount spent on the purchase (Wen et al., 2011).

In order to maximize coordination and collaboration in a company, Hughes (2010) suggests a basic framework for implementing SRM processes. The framework shows the necessary business sub-processes of SRM, such as Supplier evaluation and selection, Negotiation and contracting and Supplier development, from a holistic viewpoint. SRM is performed with the individual supplier and connected to sourcing as well as aligning business strategy. The starting point of SRM is described to be recognizing the fact that interactions with suppliers are not discrete and independent. It consists of relationships that are accurately and usefully thought out. There is nothing such as a single transaction with a single interface but rather comprise multiple interactions over time. Furthermore, Hughes (2010) expresses in his framework that SRM can provide a competitive advantage if how and when to leverage from suppliers' assets, capabilities and knowledge are consistently analyzed. SRM is described to be about coordinating the own organization to manage supplier interactions strategically and as a part of a complete relationship instead of tactically with various functional silos where company functions are separated.

Park et al. (2010) suggest a structure of a proposed SRM system consisting of five blocks namely: *Shaping the purchasing strategies, Supplier selection, Collaboration, Supplier assessment and development as well as Continuous improvement*. These are connected to each other in a loop and the outcome from *Supplier assessment and development* gives feedback to the other blocks. They emphasize that previous studies of SRM have been focusing much on purchasing and supplier selection, however, they believe SRM should be extended to committing long-term to achieve mutual growth. Further, a system for SRM should strategically aim for collaboration with suppliers and include development through continuous assessment and enhancement (Park et al., 2010).

In extensive research by Lambert and Schwieterman (2012) SRM is divided into sub-processes, five strategic and seven operational. For the sub-processes to be properly implemented, members from every business function need to actively engage and participate. The sub-processes together with the process interfaces are presented in *Figure 3-9*. Beyond involvement

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from every business function involvement of both customers and suppliers is necessary (Lambert and Schwieterman, 2012).
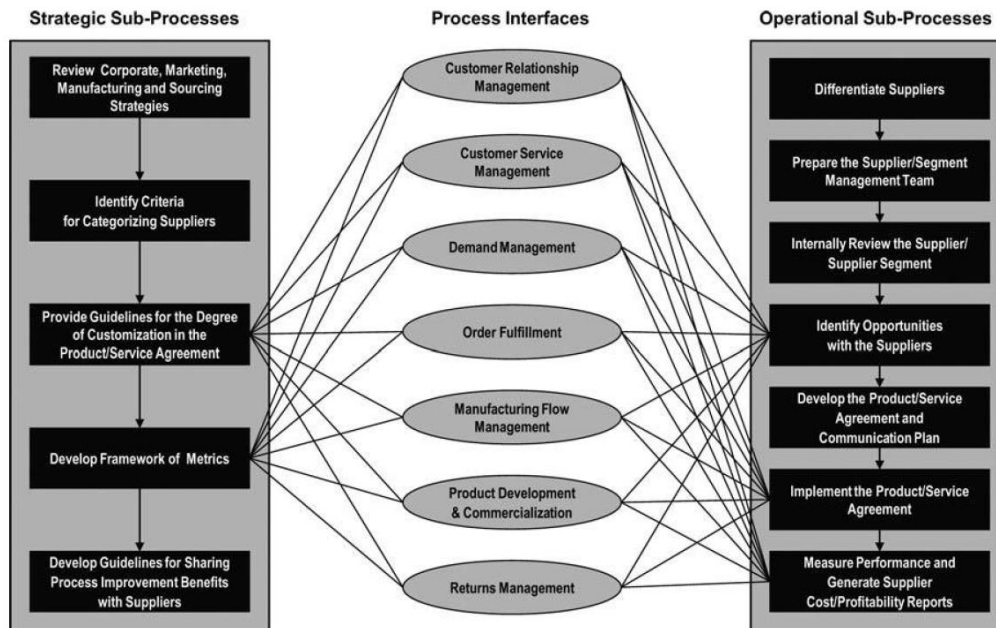
Figure 3-9, Sub-processes of SRM and their interfaces (Lambert and Schwieterman, 2012).

O'Brien (2018) has produced an all-embracing framework for SRM in his book *Supplier relationship management: unlocking the hidden value in your supply base,* where SRM is described as a strategic and organization-wide philosophy. SRM is viewed as an umbrella term that covers approaches from supply chain management, supplier improvement, and development, supplier performance measurement as well as strategic collaborative relationships. Bringing these approaches together, an ensemble of complementary supply base interventions is created and to reach company objectives, this ensemble should work coordinated and determined. To create an effective SRM programme, the ensemble is divided into seven facets, presented in *Figure 3-10*, that must work together and be provided for.
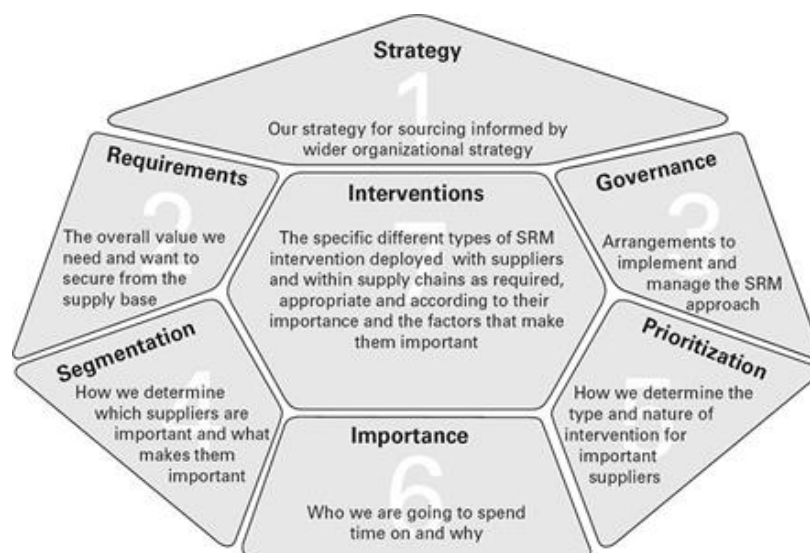
Figure 3-10, The seven facets of SRM by O'Brien (2018).

Together the facets form what O'Brien (2018) describes as the Orchestra of SRM. Providing the means for deploying and determining the right interventions, with the right suppliers who are of greatest importance to the company. Also at any given point of time, what makes those suppliers important to the organization. In order to be successful, each of the facets must act as in harmony with the circumstances of the current environment and what is appropriate. All in all, all suppliers are not the same and SRM is about deciding the extent and nature of any supplier relationship as well as the level of intervention needed (O'Brien, 2018).

3.5 Performance Measurement

Performance is measured in order to make better decisions and identify problems. This section describes why and how to measure, what should be measured and the importance of closing the feedback loop to make performance measurement effective. Furthermore, the outcome of performance measurement in an SRM approach is elaborated on.

3.5.1 Why and How to Measure

Evaluating purchasing performance is argued by van Weele (2018) to lay the foundation for better decision making. This since variances from planned results can be identified and analyzed, whereupon the cause may be determined, and it can be prevented from happening again. Further, measuring performance may contribute to increased transparency and motivation. Transparency from the possibility to verify expectations and ability to give constructive feedback to the supplier, and motivation through the possibility of helpful effective goals that can be set. All in all, utilizing a performance measurement system increases the value added from the purchasing department through better sourcing decisions, less rejected incoming goods, as well as cost reductions and lower material costs (van Weele, 2018).

Supplier performance measurement is included as a part of an overall SRM approach. It is about measuring individual and collective supplier performance, therefore, utilize those results to drive suitable interventions and also to improve the outcomes with suppliers in line with the company's orientation (O'Brien, 2018).

Assessing and measuring supplier performance is done to analyze and make an accurate and comprehensive judgment of effectiveness, achievement, and potential for the supplier to develop (Wen et al., 2011). The process of performance evaluation adopts a criteria system which should be objective and assessed for a certain supplier and/or process, aiming at identifying operational results in order to promote improvements. Wen et al. (2011) suggest a system and process for supplier performance assessment, shown in *Figure 3-11*, consisting of six steps that are arranged in a subsequent loop.
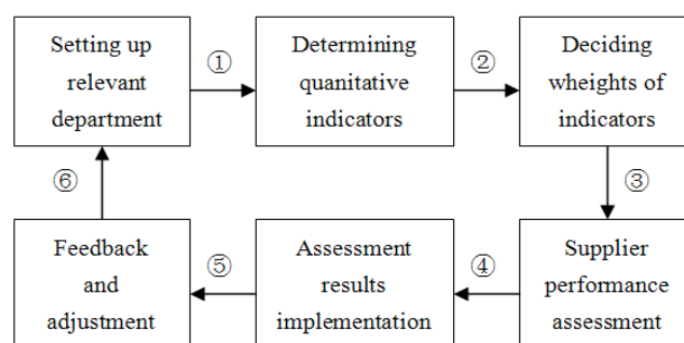
Figure 3-11, The process of supplier performance assessment (Wen et al., 2011).

Hughes (2010) argues that performance measurement is a process where a company and their suppliers should be aligned and together define suitable metrics to measure as well as manage performance and value that is delivered to both parts (Hudges, 2010). When developing the framework of metrics, it includes to outline the metrics that are of interest and relate them to the impact that the supplier has on the organization's profitability, and vice versa (Lambert and Burduroglu, 2000; Zablah, Bellenger and Johnston, (2005); Payne and Frow, 2005). The SRM process team is responsible for ensuring that the utilized metrics for measuring supplier performance to not have any conflict with other processes' metrics. The management is required to assure that all the external and internal measurements drive consistent as well as suitable behavior (Lambert and Pohlen, 2001). SRM can, for example, result in increased sales volume by making improvements for the quality of materials and also the service received from suppliers. Better quality products will, in turn, enable the organization to charge for a higher price, while service improvements from suppliers can make the organization provide better service for their customers, which result in increased sales (Lambert and Schwieterman, 2012).

O'Brien (2018) suggests different degrees of intervention depending on the prioritization of the supplier, see *Figure 3-12*. The type of review that is necessary differ from no regular review up to collaboration and joint review towards shared goals. Furthermore, Lambert and Schwieterman (2012) argue that regular, preferably quarterly, meetings with key suppliers should be performed as a comprehensive performance review by the management team. This should be done in order to ensure that the planned implementation is performed. Suppliers that are less critical have a biannual review meeting, and every supplier had meetings with the company at least once a year, to follow up the performance (Lambert and Schwieterman, 2012).
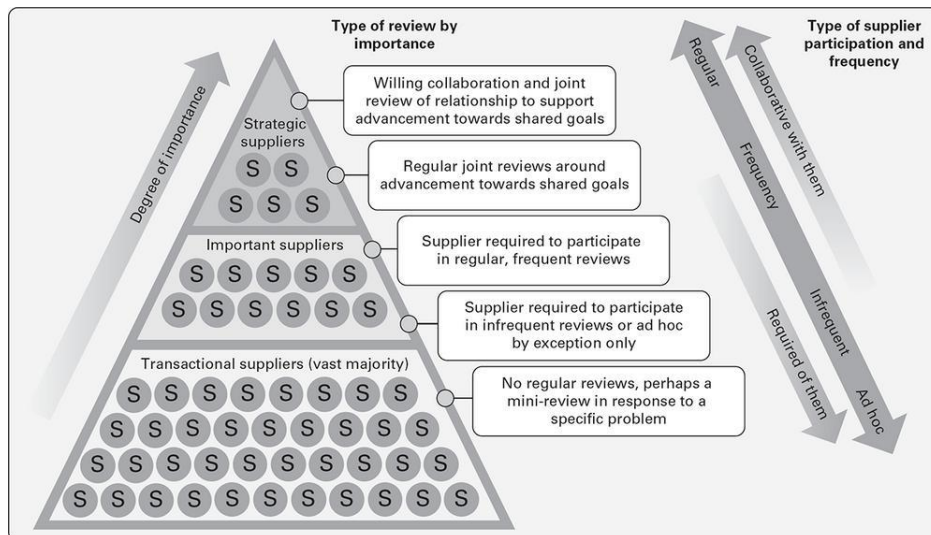
Figure 3-12, Degree of supplier review and intervention (O'Brien, 2018).

Moreover, supplier performance measurement can be essential when it comes to guiding outcomes. It can at the same time mean that there is no benefit with measuring the performance of the suppliers, and therefore no use to expend that energy (O'Brien 2018). O'Brien (2018) presents the commonly held belief from textbooks that the best practice means that supplier measurements need to be used, with scorecards that cover varied and wide aspects of the supplier performance, and that this makes performance better. This is something that O'Brien (2018) does not agree with. Hudges (2010) is in agreement with O'Brien (2018) that performance measurements is not only about producing scorecards but is also needs to enable data-driven conversation regarding diagnoses as well as possible solutions for the identified problem.

3.5.2 Key Performance Indicators and What to Measure

Key Performance Indicators (KPIs) can be utilized in order to measure and identify improvements regarding supplier management. Without a context or purpose, it is hard to achieve something, thus failure or stagnation is likely to occur. Common KPIs are among others the level and/or consistency of quality, consistency, and predictability of delivery, price, transaction efficiency in regards of speed, simplicity and transparency, value adds and innovation (Lambert and Burduroglu, 2000). Furthermore, Hughes (2010) argues that not only outcome-oriented metrics such as cost savings and incremental revenue contribution should be included for successful performance measurement. Also, leading indicators which enables the relationship to be handled more proactively should be included. Metrics should cover both tangible factors such as cycle time and inventory levels in an operational view, but also intangible factors such as the level of trust.

Van Weele (2018) argues that purchasing performance can be measured within five key areas. These are a price-cost dimension, a product-quality dimension, a logistics dimension, a supplier relationship dimension, and an organizational dimension. Looking further into the relationship dimension, SRM can be measured in supplier operational performance through measures such as quality, delivery reliability, the price versus target price and efficiency of invoice processing. From monitoring the company's versus the supplier's position, SRM can also be measured in terms of strategic relationship measures. This includes the internal satisfaction from working with specific suppliers and the other way around how satisfied the supplier is with working with the customer company. Measuring satisfaction may include the speed of response and on-time payments, this is usually gathered annually in surveys (van Weele, 2018).

Further, Schuh et al. (2014) agree that there are several performance variables regarding the supplier that matters. Looking at the big picture, major important factors are getting on time and in full deliveries, trends of savings when comparing periods and number of improvement ideas that had been implemented over a certain period. The key focus of these factors is in line with what is previously described concerning time, cost and quality (Schuh et al., 2014).

3.5.3 Making Performance Measurement Effective

Measurement is an essential component in order to guide a company and its different enabling functions to the overall objectives. A measurement system will solely be effective when the company ensures to measuring the right things (O'Brien, 2018). Amaratunga and Baldry (2002) argue that it is required for measurements to have a purpose. Measurement is not an end within itself, it is instead a tool for more effective management. It is easier to have a measurement system that consumes a lot of energy, and it is much harder to have one that is effective.

O'Brien (2018) presents two systems of measurement, *open loop system* and *closed loop system.* An open loop system is a record of the measurement at that moment, which does not influence any future outcomes and is illustrated in *Figure 3-13a.* While a closed loop system measures the record and uses it as a basis in order to achieve and drive improvements, see *Figure 3-13b.* By doing so, continuous feedback is created. Corrections and improvements in the loop are done in order to make the measurement drive action. This further improves the outcome in the future (O'Brien, 2018).

<div style="text-align:center;">(a)   (b)</div>
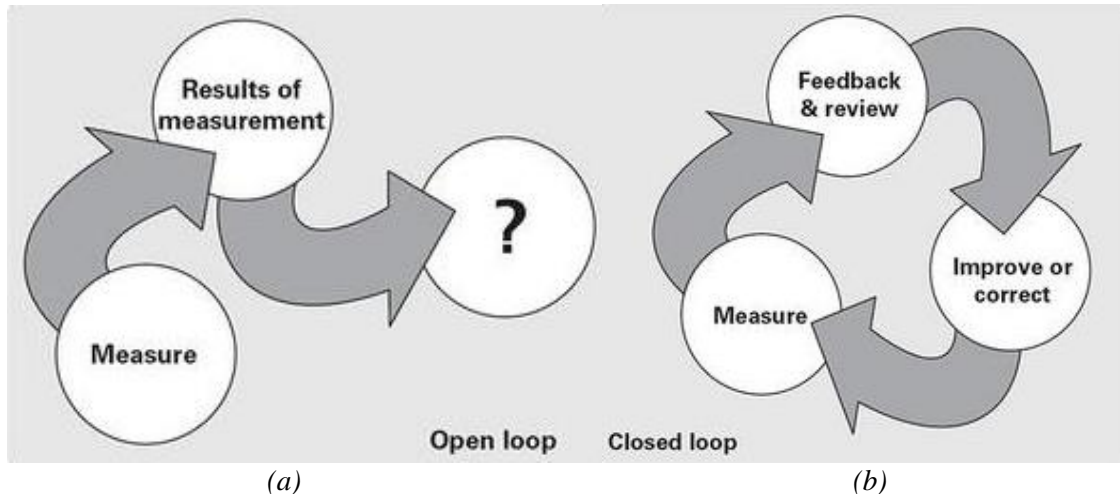
Figure 3-13, Open and closed loop measurement system (O'Brien, 2018).

To adapt and implement truly useful SRM Schuh et al. (2014) suggests that under certain circumstances, for example, if a supplier's performance trend is negative, an email or other notification should be sent out to selected users who have subscribed to information of the certain supplier. It is common that everyone has access to great information systems, containing all types of data, however, it is not an easy task to monitor it all. Through proactive alerts, as the one described, the user can be aware of the suppliers where things are happening. In order to further monitor the data, it is suggested that the user should be able to configure what that specific user want and need to see and also that the data should be presented in visual analytics, to avoid information overload (Schuh et al., 2014).

3.5.4 Measuring the Outcome of SRM

Lambert (2008) argues that the most comprehensive and ultimate measure of success from SRM origins from the supplier or supplier segments impact on the company's profitability. The success of SRM, is according to Schuh et al. (2014), not possible to measure in terms of cost savings. It is rather argued to be from incremental competitive advantage, which can be attributed to suppliers. Competitive advantage is however subjective and is regarded differently in different companies, but it is commonly observed in terms of gained market share, higher profit margin, higher availability, shorter delivery lead times, better quality and happier customers.

Furthermore, also O'Brien (2018) argues that the value to gain from SRM is much more than only profit. Rather, the value takes the shape of innovation from the supply base, performance improvement, effectiveness of operations and risk reduction. In addition to these four value improvers, further values can be gained from increased process efficiency, effective communication, customer preference as well as some profit value. However, this is only possible when working with SRM through an end-to-end perspective and remembering the importance of the two interfaces a company has through sourcing and satisfying which is further described in *Subsection 3.7.2* (O'Brien, 2018).

3.6 Supplier Development

Supplier development must be done in order to unlock and sustain the value from SRM. Developing suppliers is about acting upon measurement and realizing what can be achieved. It is also about learning from the past to improve the future, hence going from proactive to reactive. Furthermore, it is about motivating suppliers to improve their operations to get more out of them by driving supplier behavior (Schuh et al., 2014). In this section, the aim of supplier development is described, elaboration on a reactive versus a proactive approach is done followed by the importance of having one interface to suppliers and get them to mobilize resources.

3.6.1 Supplier Development and its Aim

Supplier development is described by Hughes (2010) to be the process where a company identifies as well as evaluates opportunities in order to enhance the supplier's capabilities. It also covers how to accomplish and what resources are needed for the enhancement so that results from the efforts can be ensured. Developing supplier derives from self-interest, hence it is only worth investing in the opportunities which provide an attractive return to the own company in terms of improved quality, reduced cost or similar value-adding cause (Hughes, 2010). The strategy of developing existing suppliers is initiated in the buyer is willing to help the supplier in improving processes to achieve decreased operational cost, hence result in a win-win situation (Wen et al., 2011). When talking about supplier improvement, Wen et al. (2011) refer to all activities of improving the performance and capabilities of the supplier, in order to meet both short- and long-term requirements. Ways to do this is exemplified through sharing technology, providing training personnel and other tools, as well as providing incentives or encouraging competition among suppliers (Wen et al., 2011).

In a relationship with a supplier, supplier development is aimed at improving performance (van Weele, 2018). In order for a purchasing professional to develop its suppliers, van Weele (2018) argues that there are three types of actions. Starting with a supplier suggestion programme, where improvement ideas from the supplier are actively called for from the buyer. Followed by, supplier development through aiming at engaging the supplier in for example long-term cost reduction which is value adding for both parties thus results in the supplier being more proactive with their requests as they also benefit from it. At last, conducting a supplier satisfaction survey which makes the expectations explicit among all stakeholders, ranging from blue collar to top management.

Building collaborative relationships require a lot of time and effort. Business partners may go through many phases ranging from the more traditional arm's-length relationship into being more collaborative. To achieve this, van Weele (2018) presents an illustration of a triangle of activities that both parties need to conduct, see *Figure 3-14*. The initiatives in the triangle are based on understanding how the company's suppliers work and range up to the top, where joint improvement activities can be conducted. However, to reach the top, it requires the purchasing employees to view their own company and activities through the eyes of the supplier (van Weele, 2018).

Figure 3-14, Development activities to reach partnership (van Weele, 2018).

3.6.2 Reactive and Proactive Approaches for Supplier Development

Van Weele (2018) argues that over time when managing a supplier and the relationship, there are three phases. In the first phase of managing a supplier, it is likely to be reactive and driven by opportunities. In the second phase, it tends to become more proactive and driven by supplier performance improvements. In the final stage, it can reach a partnership, hence turn into nurturing the relationship. Achieving improvements over time and going from reactive to proactive is closely linked to the previously described closed loop system by O'Brien (2018). As the continuous feedback drives improvement and if eliminating the root cause the same issue is less likely to occur again and it will thus improve the future outcome (O'Brien, 2018).

Furthermore, with the same ulterior motive improving and developing suppliers are according to O'Brien (2018) essential components in an SRM approach. It ranges from basic interventions of fixing an issue to collaboration in order to develop capabilities which benefit both parties. Depending on the wanted outcome as well as the importance of the supplier interventions are divided into supplier improvement through a reactive approach and supplier development, which is a more proactive approach. For middle tier suppliers and also some transactional suppliers, supplier improvements based on past performance is done in order to move towards an improved position. The improvement can be a corrective action, preventive action or working with continuous improvements and is most often, but not always reactive. For the strategic suppliers, the more proactive approach is emphasized through supplier development. It is done through collaborating with the supplier and develop new capabilities, which enables the parties to advance towards an agreed goal which otherwise would not have been achievable. Further, O'Brien (2018) lists appropriate and necessary interventions to be:

Reactive supplier improvement
- Fixing supplier related issues
- Eliminations or reducing a known risk
- Cost reduction
- Improvement of process efficiency and effectiveness
- Performance improvements

Proactive supplier development
- Development of capabilities
- Development of new product or service
- Increased market penetration
- Entering new markets
- Creation of new differentiator
- Releasing new value which benefits both parties

In an overall SRM approach, these specific interventions drive corrective actions and improvements for all suppliers and further develop suppliers in line with the company as well as shared goals for more strategic suppliers (O'Brien, 2018). All in all, to achieve improvement and development O'Brien (2018) argues that goals, measures and interventions must be in place. Goals are needed to know what to aim for, measures in order to know what to develop and interventions to know what action to take.

For strategic and important suppliers, the goals should be defined by relationship and business requirements, which in turn, arise from the wider organizational goals. Measurements in terms of a full performance measurement system of KPIs is preferred in addition to basic checks of compliance and conformance. To achieve supplier advancement for the strategic suppliers, interventions in terms of collaborative programs are suggested. While important suppliers should be managed to achieve improvement. For transactional suppliers, the goal is set in terms of basic needs such as correct delivery, in good condition and on time and in full deliveries of on time and in full. Measures are done by formalized means in basic checks. Furthermore, interventions are in terms of corrective actions, such as rejecting goods for a replacement, rework or refund.

What improvement approach is used is dependent on supplier importance. Hence, what is done and how much is needed is dependent on the goals and what the measures imply. This is illustrated in *Figure 3-15*. Where it can be seen that the higher degree of importance of a supplier, the more collaborative approach is preferred. While for the less important suppliers, it is enough to just manage them.
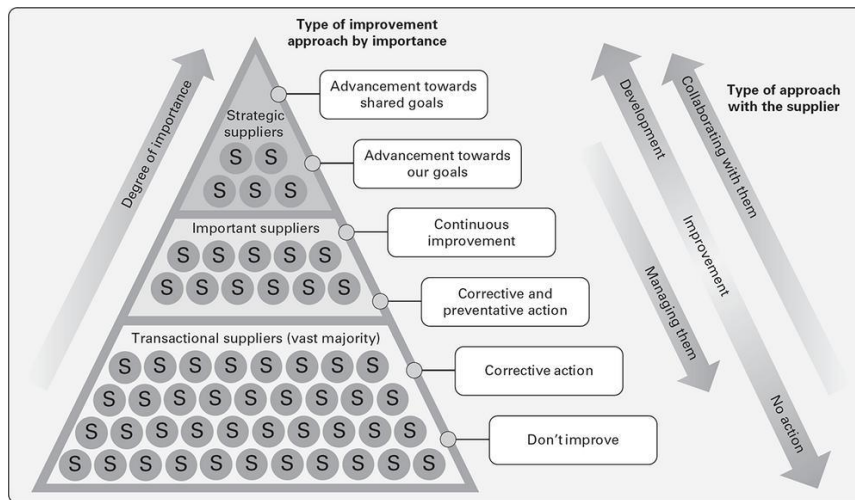
Figure 3-15, Improvement approach and actions based on supplier performance (O'Brien, 2018).

3.6.3 Eliminate Root Cause

An SRM approach drive improvements and correction actions, this can be done with the conceptual tool called 5 why. It is used in order to find the root cause regarding why an issue has arisen. The purpose with this tool is to ask "why" when an issue occurs, and this should not be asked one single time, but at least five consecutive times to be able to find the root cause regarding the problem in order to eliminate it. Instead of solving it temporarily or for every time it occurs. In practice, it is not always straightforward and easy answers regarding why an issue occurs. Most of the time, it includes both depth and breadth, this conceptual tool can thereby be seen as corrective as well as preventive when it comes to problems (Ohno, 1988; Murugaiah et al., 2010).

3.6.4 Having One Interface and Getting Suppliers to Mobilize Resources

Schuh et al. (2014) bring up the importance of only presenting one face to the supplier. In an ideal world, the supplier should deal with only one go-to person who is the relationship owner. Depending on the supplier position, the seniority as well as from which company function the person comes from will differ. Further, they argue that it may be easier said than done, but as companies on the customer side most often have key account managers in place, it should not be impossible for the supply side to appoint a relationship owner as well (Schuh et al., 2014).

Connected to supplier development, there is a range of factors that may affect supplier behavior negatively. Ellegaard and Koch (2012) imply that if internal processes are uncoordinated and with poor integration between functions, there is an excessive risk of preventing integration with suppliers from impacting on company performance in a positive manner. If integration between purchasing and other company operations are low or uncoordinated, there is a risk of setting expectations which operations cannot live up when making suppliers mobilize resources. This may hinder suppliers to contribute as well as benefit from the exchange initiatives in the relationship. Further, it may be causing an unfavorable effect internally if operations perceive that the purchasing department is working against them.

In a case where a supplier mobilizes their resources towards a buying company without getting anything in return nor benefit from the initiative, while at the same time having to fight against resistant or unwilling employees, disagreements will occur in the relationship. Consequently, the supplier will target other buying companies instead. Without suppliers that are willing to

mobilize resources, a company cannot gain a competitive advantage in the long-term. The findings by Ellegaard and Koch (2012) underline that coordination and internal integration is a critical prerequisite for supplier mobilization, thus making suppliers put effort into relationship initiatives. Consequently, it all comes down to the importance of implementing SRM in a holistic point of view and working cross-functional. This since the organizational integration in a company is one of the most critical factors of purchasing performance as well as the company's overall performance (Ellegaard and Koch, 2012). Further, it implies the importance of creating a win-win situation as the supplier will not mobilize their resources towards a buying company if they do not get anything in return or benefit from the initiative.

3.7 A Holistic Approach to SRM

To employ SRM, an understanding of the overarching and holistic approach to doing so is necessary. Understanding the creation of value in a greater perspective lays the foundation for why and how SRM activities are implemented. In this section SRM as a holistic and cross-functional activity, the value chain and creation of value as well as why a holistic approach is essential is described.

3.7.1 SRM as a Holistic and Cross-Functional Activity

The Global Supply Chain Forum research team of academics and executives has identified SRM as one of eight, highly aggregated, essential macro business processes for integrating and managing business processes across the supply chain (Lambert and Schwieterman, 2012). All business processes are interrelated and must interface with the other seven processes for the business to work as a whole, hence it requires cross-functional integration (Lambert and Schwieterman, 2012).

To employ SRM, it needs to be considered in such a holistic perspective and one of the basic understandings is about how supplier relations can add value through increased purchasing performance. To be able to contribute to the company's objectives and success, SRM must be approached in a wide perspective with cross-functional integration (O'Brien, 2018). Based on SRM being holistic, Schuh et al. (2014) proclaim that all interactions between customer and supplier, regardless of what business functions are in contact, are a part of SRM practices.

Implementing cross-functional and cross-company teams is important when aiming at increasing the profitability for both buyer and supplier through the development of the relationship. As the potential to increase profitability for both parties through co-creation of value is one of the key benefits from cross-functionality (Lambert and Schwieterman, 2012). When working cross-functional Schuh et al. (2014) emphasizes the importance of securing that the necessary governance structure is in place. The governance structure should further be aligned with the aim with each individual supplier, their needs and opportunities. This is necessary in order to make a consistent message when communicating with the supplier. Consequently, the united front with a clear and the same message from across functions enables the supplier to help the company in the most efficient way (Schuh et al., 2014).

Another important factor to be able to bring SRM to life is to treat the processes of SRM as dynamic, in order to recognize and understand that things change over time (Schuh et al., 2014). Schuh et al. (2014) further stressed that to stay relevant in a world that is constantly changing SRM can be a key enabler if it is done well. However, it needs to go beyond traditional procurement to do so. In the same way, it is described by O'Brien (2018) that all suppliers that

are significant has its own piece of music and the melody is in constant change. Implementing this mindset of SRM is believed to help understand how truly effective SRM programs can be built and developed (O'Brien, 2018).

In the SRM framework by Lambert and Schwieterman (2012) one important sub-process is described to be reviewing strategies. Corporate, manufacturing, marketing as well as sourcing strategies should be reviewed with the aim to identify the means, both in terms of products and services as well as supplier segments that are the keys to the company's success both now and for the future. To be a profitable business the importance and impact of the supplier network is crucial as it can impact product quality, availability, flexibility, sustainability as well as time to market. All these factors, emerging from strategic opportunities such as value co-creation and supply risk, needs to be concluded into a comprehensive strategy for SRM.

3.7.2 The Value Chain and Creation of Value

The concept of the value chain emerged from Porter (1985) who described how all functions in a company contributed to some direct or indirect value adding to the final product, as goods passed through the companies. By processing, mixing, combining, packaging or through other contributions, all companies add value to the end product, which is bought by a customer. If the company does not deliver to the end customer, value is further added in the next organization until it reaches the end customer (Porter, 1985). The complete supply chain, from raw materials to end product is by Porter (1985) called the end-to-end flow of value the value system, shown in *Figure 3-16*. When the end customer value is connected to the sourced value, it creates a need for a change of mindset regarding the role of the supply base and how companies choose to interact with suppliers (O'Brien, 2018). However, van Weele (2018) narrates that the customer always needs to perceive that the value generated is more than the sum of its cost, hence all activities performed by companies need to be arranged to fulfill this. In this point of view, a company has two interfaces with its surroundings, one supplier facing and one customer facing, which together is the key linkages by sourcing and satisfying. It further describes how a company with its strategy and transformation process can contribute with value to the end product (O'Brien, 2018).
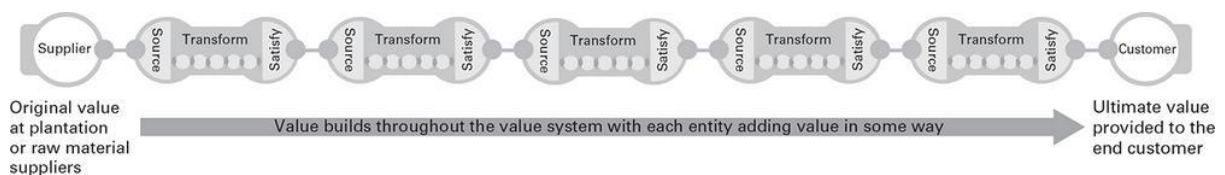
Figure 3-16, End-to-end flow linking companies in the supply chain by sourcing, transforming and satisfying (O'Brien, 2018).

Van Weele and Rozemeijer (1996) described how decisions within purchasing in the past were mainly based on a combination of price and quality, which then was the tradeoff between benefit and sacrifice. However, they described the customer of tomorrow to expect several more dimensions including convenience, after-sales service as well as reliability. In the relationships between customer and suppliers, the customer will be in charge and tell manufacturers what, when and how they want it (Van Weele and Rozemeijer, 1996). On a strategic level Kähkönen and Lintukangas (2012) explain that one major shift regarding value is that it is re-thought to include not only financial but also intangible aspects. They further describe that value can be analyzed in three different perspectives; the value of an offering, the value of a relationship and the value created by a relationship (Kähkönen and Lintukangas, 2012).

The process of value creation is by Kähkönen and Lintukangas (2012) defined to be when two or more parties make use of each other's resources in order to generate value, while value itself is described as a subjective evaluation between benefits and sacrifices. For SRM to contribute with a significant impact it is essential that companies are organized in such a way that it satisfies both the supply side, customer side, and company strategy. Hence, the corporate mission and strategy need to be translated into departmental actions that fulfill value creation through an efficient and effective transformation of what are sources into something that satisfies the customer (O'Brien, 2018).

Both the procurement function and also the whole firm should aim at creating value, not only for themselves but for both their suppliers and customers as well. The contribution of value from strategically integrating with suppliers is significant and gives positive effects on the competitiveness of a firm as well as its performance (Kähkönen and Lintukangas, 2012).

Managing the supply as well as the customer side is critical since these are the linkages for companies throughout the supply chain (Lambert and Schwieterman, 2012). As supply chains are managed separately link-by-link and relationship-by-relationship, eventually SCM is all about SRM. Consequently, the companies that manage the relationships the best wins (Lambert, 2008). Extending this into a bigger picture, as competition nowadays is not between companies anymore, but is rather between supply chains, SRM as a management area gets a key role (Dash et al., 2018). SRM needs to be understood and implemented in order to succeed in the strategic intent and holistic approach.

3.7.3 Issues and Why a Strategic Approach is Essential

Businesses traditionally perceive procurement, hence also SRM, primary as a contributor to or possibility of cost reduction as it is often seen as merely a cost center (Hughes, 2010). It is, however, as Gadde et al. (2011) stress, important to understand that the supply base of a firm is the most valuable asset. The purchasing activities have both direct and indirect impact on a company's profitability along with opportunities to access suppliers' knowledge and technology. As of the possibilities to create value for both the buyer and the supplier, SRM should be seen as a strategic tool (Gadde et al., 2011). One further issue when it comes to implementing SRM is understanding the strategic role regarding purchasing and supplier interactions (Gadde et al., 2011). As previously described in *Subsection 3.1.1*, the overall performance is not maximized when minimizing the cost on single purchases. With a strategic scope, purchases and costs over time need to be taken into account (den Butter and Linse, 2008; Gadde et al., 2011). To be able to succeed when implementing SRM, businesses should manage and view their suppliers as strategic assets and contributors to overall value creation in the business (Hughes 2010; Peek and Verweij, 2013). The objective of cutting cost is, however indicated as one of the major objectives for companies to implement SRM. This might get in conflict with the philosophy of value creation and it is further described that such a mindset could make implementing SRM complex and complicated (Peek and Verweij, 2013).

An SRM strategy that is holistic, assuring corporate and functional alignment as well as focusing on revenue generation rather than cost reductions, is stated by Lambert and Enz (2017) to have great opportunities for value creation and in generating competitive advantage. When including suppliers and customers in a company's own processes there is, for example, an opportunity to both meet customers' demands better as well as shorten time to market, things that can generate more profit for the company. It is important to identify these revenue

implications from managing supplier relationships and not only focus on measuring cost reduction and asset utilization (Lambert and Enz, 2017).

Moreover, Schuh et al. (2014) emphasize that the increased competitive advantage is where the success of SRM can be measured. Gaining competitive advantage might however mean different between firms. It could be connected to gaining market share from a successful product or service innovation, reduced cost of goods sold resulting in a higher profit margin, shorter lead times or higher availability (Schuh et al., 2014).

Summing up, executing an SRM approach can fuel growth, improve effectiveness and efficiency, reduce cost and minimize supply risks to achieve overall competitiveness. To support effective SRM, the end-to-end value needs to be in focus, work is required to be cross-functional with the wider organization as well as integrating the SRM approach with other strategic procurement initiatives. Understanding the holistic view and importance of coordinating activities to encourage cross-functionality throughout the organization is fundamental and further both underpins and creates a purpose for an SRM programme that is effective (O'Brien, 2018).

3.8 Synthesizing Literature

Based on these frameworks and reviewed definitions of SRM, the authors consider it to cover five key areas, which are; *Holistic Approach to SRM, Segmentation of Suppliers, Relationship Management, Performance Measurement, and Supplier Development*. Even if a division is made, it is important to remember that everything goes hand in hand and must work together as a whole since it is interrelated. These areas are summarized in *Figure 3-17* which shows the activities, their key tools and managerial implications as well as how they are related.

The key activities are all based on the underlying mindset that emerges from a holistic approach and understanding of SRM. Meaning that suppliers are seen as strategic assets, there is a long term perspective and an understanding of the end-to-end flow in the supply chain. When the underlying mindset is there, the first element is *Segmentation of Suppliers* which can be done through Kraljic portfolio matrix and prioritizing suppliers. Based on the segmentation, *Relationship Management* is the next activity. For this, the level of collaboration needs to be decided, a basic understanding of the core values such as trust and mutual commitment is necessary and further, it is adequate to define and implement a common way of working through a supplier interaction model. As the business environment and supplier performance are constantly changing, suppliers can move in the supplier interaction model matrix, thus the suitable interaction model change.

Moreover, *Performance Measurement* needs to be made. What is to be measured needs to be decided and have a purpose. It further needs to be followed up for the measurement to be effective. Upon the outcome of the performance measurement actions in terms of *Supplier Development* can be done in order to go from a reactive to a more proactive approach. Supplier development activities should be done with selected important suppliers in order to motivate them to improve their operations and get more out of them. In order to do so, it requires having the organizational structure in place and acting in a coordinated manner towards the supplier, thus, send a consistent message.
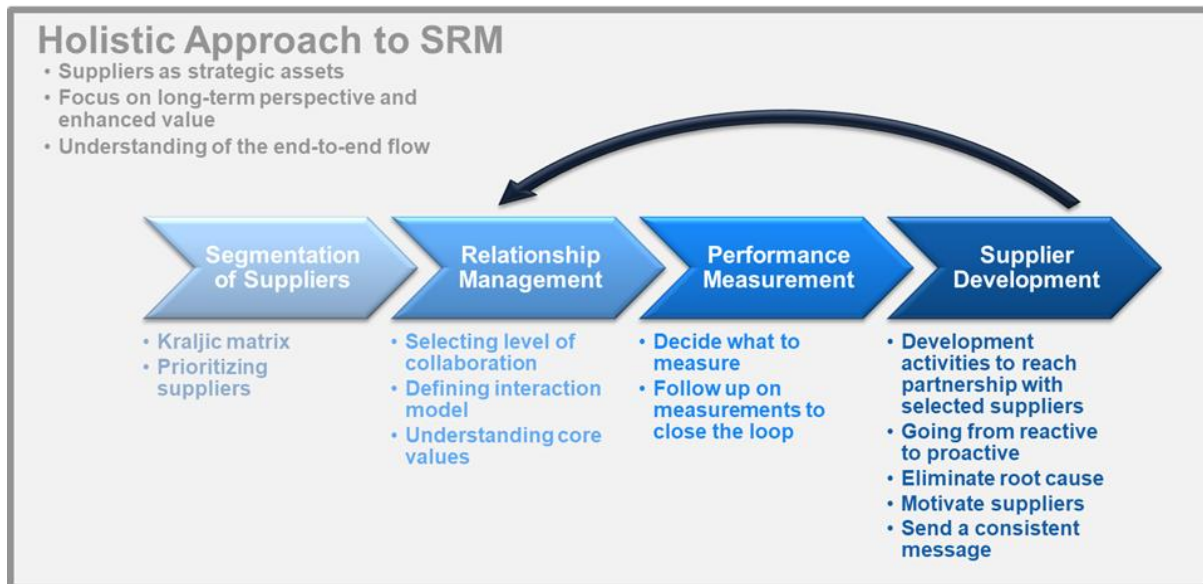
Figure 3-17, Suggested key areas and tools of SRM.

These areas were synthesized from a systematic approach reviewing the SRM frameworks where SRM was divided into methods or sub-processes. These were the frameworks by Hughes (2010), Park et al. (2010), Wen et al. (2011), Lambert and Schwieterman (2012) and O'Brien (2018). By analyzing the sub-processes arranged next to each other in an excel sheet, common denominators could be found. These common denominators formed the categorization into five main areas. The final categorized sheet, with all sub-processes, is presented as a whole in *Appendix B*.

4 Empirical Findings

In this chapter, the focus is upon the role of SRM in the company's purchasing with the view that SRM encompasses interactions with suppliers. The employed purchasing process is described and further process mining of interactions connected to the process is described. Moreover, strengths and challenges, as well as some improvements areas and future aspirations, are described to provide where additional value from SRM can be added to the current operations.

4.1 Procurement Process at the Company

In this section, the processes employed at the company for strategic and operational purchasing is described.

4.1.1 The Process

The case company is using its own procurement process shown in *Figure 4-1*. It contains two cycles, the strategic and the operational, which are connected by a bridge with contract and supplier relationship management (Company internal material, 2019). The steps in the procurement process are similar to the extended procurement process by van Weele (2018). However, the company's process is divided into two connecting cycles rather than two semi-circles.
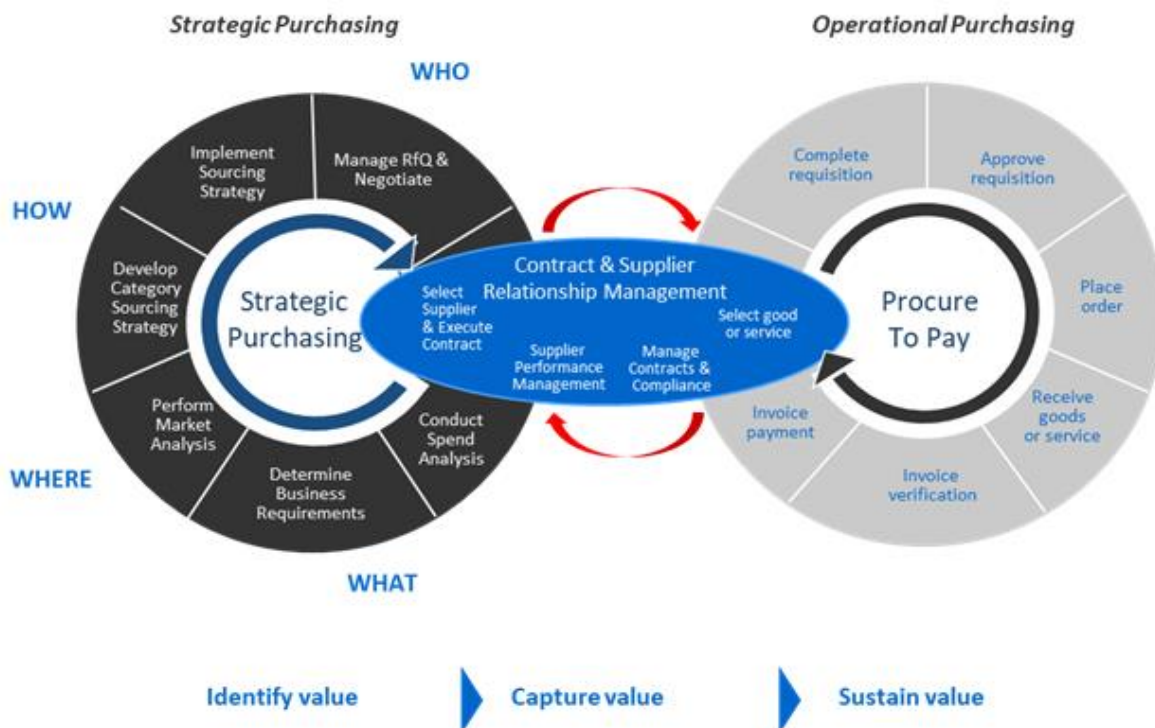
Figure 4-1 - Purchasing Process and Systems (Company internal material, 2019).

4.1.2 Strategic Purchasing

The cycle for strategic purchasing can be generalized into four steps, determination of specification, supply base evaluation, supplier segmentation, and negotiation. By applying the steps in the strategic cycle the aim from a sourcing point of view is to give an answer to what, where, how and who. When these questions are answered, the strategic sourcing cycle ends in supplier selection and conducting a contract agreement.

The level of detail in the left cycle process might, however, differ depending on if it is known what to purchase with a predefined technical or functional specification, or if it is unknown. Thus there are two different processes, the 3-step sourcing, and the 7-step strategic sourcing, see *Figure 4-2*. The 3-step sourcing process is utilized if the supply base is structured and the specification is known. It is also used when there is a clarified comprehension regarding the stakeholders' requirements and needs. To utilize the 3-step sourcing process, there needs to be a defined category strategy available. The 7-step strategic purchasing process is on the other hand utilized if there is an unstructured supply base, unknown or unfamiliar market and/or where the stakeholders' needs and specifications are unknown. Moreover, it is used when best practices for the category is not available. The strategic sourcing process is appropriate to be used when there are benefits across business areas and/or business units. Strategic sourcing is about the achievements, what one wants to achieve in the category. Most often the main focus is on cost reduction. Further it is about deciding which suppliers that are most appropriate and suitable.
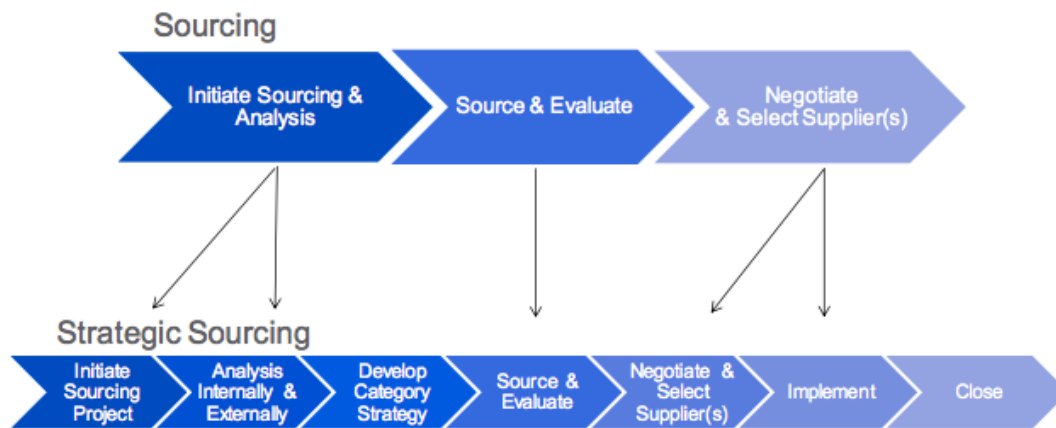
Figure 4-2, Strategic Sourcing (Company internal material, 2019).

4.1.3 Operational Purchasing and the Bridge Between the Cycles

When the sourcing in the left cycle is done and there is a contract agreement between the company and its supplier the operational phase begins. In this phase, one could say that the implementation of the agreement takes place. Here, the right cycle named procure-to-pay rotates with every purchase order. The need for purchase and selection of goods or service starts the process consisting of six steps. The process steps are as follows, purchase requisition completion, requisition approval, order placement, goods receipt, invoice verification through 3-way matching followed by invoice payment when everything is verified. As SRM is regarded to start when the contract has been signed this process is further looked into in detail.

Connecting the strategic and operational purchasing cycles, there is a bridge with contract and supplier relationship management. It consists of mainly two activities, managing contracts and compliance, and supplier performance measurement. These are further elaborated on in the process of supplier quality assurance and supplier development. SRM should measure the criteria that were determined earlier in the strategic sourcing, which is different for different categories. With other words, SRM follows up the things that have been agreed in strategic sourcing. To quote a respondent, "What you do later is dependent on what has been done in the sourcing" and "SRM should not be performed, if the agreement is not well performed and you do not know what to follow up" [R7].

4.2 Process Mining and Related Problems

When the contract is signed the operational phase starts. In this section, the major interactions with suppliers that are a part of the relationship are investigated. This mainly involves operational purchasing, both when it comes to the procure-to-pay cycle but also what happens between the cycles regarding developing and assuring quality. Further, the groundwork of ensuring quality before approving the supplier is briefly looked into, as this is the starting point of what will be done and worked with when approved.

4.2.1 Procure-to-Pay

In the procure-to-pay cycle several issues emerge, and manual intervention is a common problem that causes a large administrative workload. The interactions with suppliers in the procure-to-pay process is generalized into the process illustrated in *Figure 4-3*. The first interface with the supplier in the procure-to-pay cycle is when placing the order. If no changes are received from the supplier within a specified time, the order is treated as confirmed as it is. The next interaction point is when goods or services have been delivered. At this point, the internal procedure is to check the quality and quantity of what was delivered and make a goods receipt in the system. Eventually, an invoice will be received from the supplier and the internal process is conducting a 3-way matching of the order, goods receipt and invoice. The 3-way matching is done in order to make sure that all information regarding price, quantity as well as the product are correct and matched. If everything is matched, then it means that all issues that occurred during the process are solved, and the invoice is paid. The details and major issues in the procure-to-pay process are further described, based on the interview with [R1], step by step below.
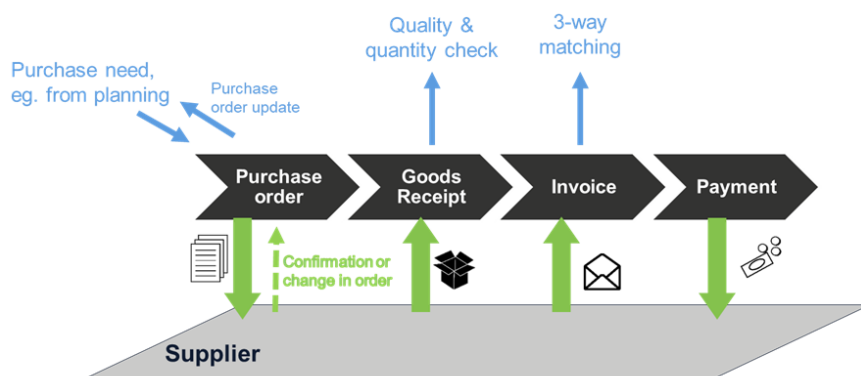
Figure 4-3, Visualization of interfaces with suppliers in the procure-to-pay process.

Purchase order
The process of ordering differs depending on what is purchased. The company generally categorize purchases into direct material and indirect material. Direct material orders are generally automated through MRP systems and what is ordered is routed out of the bill of material. Errors are more common in the manually handled indirect material as buyer sets up the order consisting of several fields, such as cost center and unit of measure. There is little or no information preassigned when creating the order, causing more complexity to the process. Incorrectly completed orders are a common primary cause of errors.

Another issue that occurs in the first phase connected to the order is when suppliers cannot fulfill the order or there is a deviation from the desired purchase order. If the supplier makes changes and sends back an updated order based on what they are able to supply, the changes

might need to be further communicated internally to production planning if it regards direct material. In some cases, the order and confirmation may loop between buyer and supplier, hence require attention from multiple people or multiple times. It is described that there are several improvement opportunities connected to this phase, mainly from automating the process.

Goods receipt
Issues that occur when it comes to goods receipt is mainly related to the order confirmation, thus if the price, quantity and time are correct. If a deviation is found, a manual internal update must be generated in order to communicate back to planning and production or the buyer who placed the order. Moreover, missing good receipt is one of the largest error codes. Thus, it needs to be managed actively and made correct when the goods or service is delivered. When it comes to indirect material and especially services, the process of goods receipt is less defined, and questions regarding when and who is responsible to confirm that the wall is painted or the floor is cleaned.

Invoicing
Major issues regarding invoicing is connected to invoice verification. First of all the invoice must comply with legal requirements. Secondly, the invoice must contain the correct information and be readable. If that is not the case, then it cannot be picked up in the system and must be returned. Invoices are received in both digital EDI and paper format, however, they still have the same requirements of what must be included. Invoices on paper require manual handling as they need to be processed and inserted in the system before 3-way matching and payment.

All invoices do not look the same and manual intervention can be necessary if an invoice is not readable for the system, information is missing or cannot be found automatically. In the case of reading automatically and the information is complete, additional manual intervention may still be necessary. This since the system only is able to read and identify the information in the field, and not verify if the information is correct. For example, if the unit of measure or amount is wrong it will cause a mismatch which requires manual intervention from one or more people to be solved.

The issue of manual intervention in procure-to-pay
Nearly 50% of the invoices require some form of manual intervention. This causes a lot of waste and unnecessary work. If eliminating or decreasing manual handling, the time used could be utilized more effective or removed as the required time adds up to many full-time employees from handling errors on invoices. There is an ongoing project for working with and identifying this type of leakage. In this, they have found that suppliers who receive a rejection on their invoice solve it in 66% of the cases. Hence, the root cause of the error can be resolved and be less likely to occur again. However, most issues are still handled here and now as they turn up, without sending it back to the supplier. Confronting the supplier is usually avoided and issues are solved internally.

To achieve a smooth end-to-end flow it requires that everyone in the process do the right thing and that everyone has an understanding of it. If one part does wrong, it will cause errors and manual handling in the following steps where it will require attention. To work efficiently and proactively the goal is to eliminate the problem where it occurred, not fix it as it causes a red flag to the process. Thus, the goal is to find one who did the mistake so that the person can correct it to be able to learn from it. Otherwise, the same errors keep happening again, and

corrections must be made for every cycle. Finding and acting at the root cause instead of only solving the problem at the moment must be implemented to achieve a more smooth flow.

4.2.2 Supplier Quality Assurance and Supplier Development Process

As a part of the strategic purchasing cycle, the Supplier Quality Assurance (SQA) team conducts the supplier approval process. The approval process lays the foundation for continuous work with the supplier and is conducted to minimize major issues later on in the process. These processes are further described below, based on the interview with [R4; R5; R6].

The approval process of suppliers to be proactive
Accepting which suppliers the company should work with is done through a developed process, see to the left in *Figure 4-4*. After a request for quotation is sent and approved, the SQA team starts with conducting a technical site visit, which is a light version of the major quality audit. Further, if it regards a high-risk country, a code of conduct compliance is assessed. In most cases when there are problems, the solution lies in educating the supplier who is usually interested in correcting their errors. In the next phase, during a 1-2 days visit, a major quality audit is conducted securing that the supplier has the right prerequisites and process to deliver. Before the supplier gets approved, the contract can be signed and the procure-to-pay cycle start, if needed the supplier also send a product sample. The sample is measured and tested as a part of the Production Part Approval Process. Usually, issues occur in some phase. If that is the case, the SQA team starts working with improvements together with the supplier. However, if the supplier is considered to have high potential or strategic importance, then the Supplier Development team is put on the job instead.
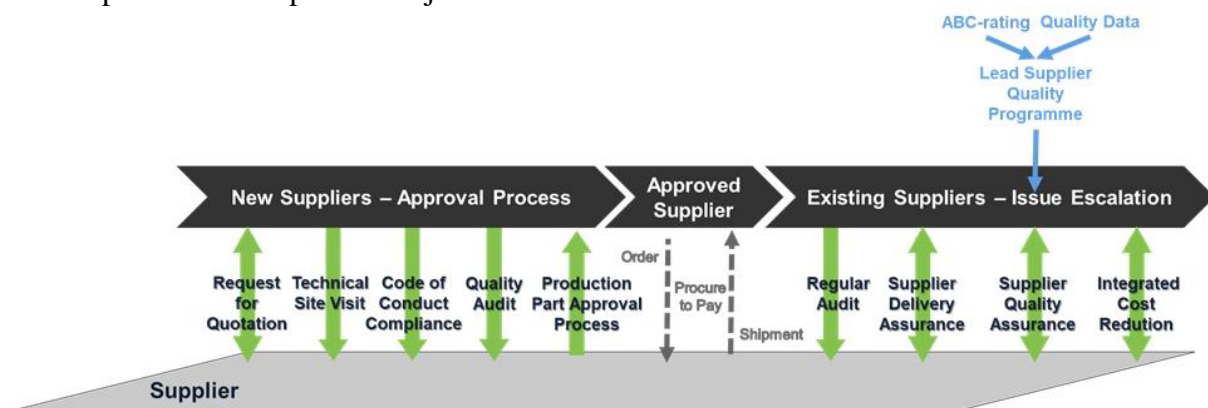
Figure 4-4, Interfaces with suppliers for the SQA and Supplier Development teams.

Working with existing suppliers
When it comes to existing suppliers, shown to the right in *Figure 4-4*, the SQA teams conduct regular audits of suppliers. How often a supplier is audited depends on its performance and is evaluated from a dashboard. For a supplier with high performance regarding delivery and quality, these audits take place every third year, however, if the supplier is more problematic auditing is instead every year.

For selected suppliers processes of Supplier Delivery Assurance or Supplier Quality Assurance is done by the SQA and Supplier Development teams. In which the teams work closer to the suppliers. This is done when major issues occur, hence in case of issue escalation. The Supplier Delivery Assurance process can be viewed as an audit in a supply chain perspective. The Supplier Quality Assurance process works towards root cause elimination regarding quality

issues. It is done through an internal Lead Supplier Quality programme that collects information from ABC-ratings and quality data.

For very few suppliers, there is also a process of Integrated Cost Reduction where innovation is worked together with suppliers through innovation workshops and sometimes smaller activities in order to make products smarter and eliminate cost.

Helping the supplier
The SQA-process emerges from poor quality delivered to the company. As a reaction to poor quality, the teams come in and respond to the underperforming supplier in order to solve the issue. This is done with a quality toolbox consisting of practices such as Six Sigma, Lean and Supplier Cost Reduction. The main problem that evolves from this is that suppliers get used to receiving help from the assigned SQA team, and the help comes without additional cost. When someone else comes in and fixes a problem, suppliers become accustomed to problems solving themselves, which makes the supplier unmotivated to put effort and resources on finding or solving the root cause themselves. Some suppliers may not want to be completely transparent, the respondent mentioned that it always becomes a certain game-like situation when you as a customer go to your suppliers [R4].

4.3 Overall Strengths When Working with Suppliers

This section presents the overall strengths that the company acquires in an SRM perspective. These strengths relate to contract agreements, supplier segmentation and prioritization, the importance of having the right approach and lastly some key performance indicators.

4.3.1 Setting Terms and Expectations in the Contract Agreement

One deficiency can most likely occur when agreements are unclear. If there is no clarification of what the company and supplier want to achieve together, what the supplier is supposed to deliver or what goals to strive for, problems will occur [R7]. Another respondent explained the high importance with the contract, in a contract agreement perspective with an SRM viewpoint [R8]. If the case company has the intent to do SRM with a supplier, the goals and expectations on the supplier relationship must be set in the contract. Since the contract is where you communicate these things and make them permanent. In this sense, contracts are the endpoint and not the starting point. In the same sense, a comparison between the contract and marriage was provided. The first step is not to get married, it is the last step. One does not propose and figure out if you like the person or not afterward. Once you decided to do something, that is when the contract takes place. The contract is about clarifying how things are going to work, for both parties. It is about how the relationship between buyer and supplier is going to be managed the [R8].

4.3.2 Working with Segmentation and Prioritization

Supplier performance monitoring where the supplier performance is checked twice a year. The suppliers are divided with help of a segmentation tool called ABC-model, and based on the results and how well the supplier performs regarding quality and delivery. Suppliers without complaints are categorized into A+, and A is counted as good. If there are more than three quality complaints, then the supplier is classified into category B. A supplier quality manager will be assigned and a supplier development process needs to take place. A lot of effort is put in order to bring the B supplier to category A. An audit is performed and a recommendation regarding the B supplier is made whether the supplier is a solid solution or should be phased

out. Further, category C is considered a bad performance. However, all suppliers are not classified, and the time investment will not be divided among all the suppliers either. The default supplier will be included as non-critical in Kraljic and can be exchanged easily if trouble arises [R3].

4.3.3 To Have the Right Approach Towards Suppliers

A respondent claims that they often can assess if a supplier is good or not after two-three hours of auditing [R6]. The assessment is first and foremost based on the gut feeling. Secondly, the Supplier Development team also looks into fact-based factors, such as checking the technical equipment, capabilities and the quality of output. Further, they calculate capacity, measure the efficiency of machinery as well as productivity.

When being on site at the supplier, the orientation has to be focused on creating a win-win situation that favors both parties. It is therefore important to have the right approach towards the supplier and always treat them with respect. One example is to propose the company's idea, rather than impose it. Furthermore, a respondent emphasized the importance of gaining credibility and being credible. The Supplier Development team needs to show the supplier that they have the experience and expertise needed. Lack of credibility will result in low trust from the supplier, thus goals and expectations of good collaboration are not likely to be achieved. Respect is also described to be a vital parameter when it comes to gaining credibility and having a good supplier relationship. Respect cannot be one side, it needs to come from both parties [R6].

Another considerable aspect when visiting the supplier is to never have a controlling or monitoring approach. Instead, the employee is a visitor at the supplier and should act that way too, by approaching the individuals and give support. This is extra important for the Supplier Development team to remember even when they are actually performing an audit. Supporting the suppliers can be done from making an improvement analysis. The Supplier Development team can look into cost-analysis as well as give suppliers suggestions to remove non-value adding activities. The respondent expressed that the company cannot only focus on the price reduction, without helping and supporting. It might create bankruptcy for the supplier. Instead, the focus should be on helping the supplier in order to create a win-win situation and let the supplier grow together with the company [R6].

Approaching suppliers with a win-win attitude results in getting greater confidence from the supplier towards the company. It generates a high level of trust and creates a positive environment. This, in turn, results in actually going forward and starting to work on common goals. Furthermore, there is currently an organizational structure in the company with Global Responsible Purchasers (P1). It is stated in the responsibility clarification that the P1 should serve as the primary contact between the company and the supplier, manage SRM activities with the supplier and coordinate sourcing activities towards the supplier (Company internal material, 2019).

4.3.4 Key Performance Indicators

When working with different suppliers, KPIs are used to measure supplier performance. The company works with measuring Quality, Cost, Delivery, Innovation and Management. Respondents point out that the focus is mainly on Quality, Cost and Delivery [R2; R4]. Looking at the processes for improving suppliers, issue escalation and action is only taken regarding Quality in the Supplier Quality Assurance process and Delivery in the Supplier Delivery

Assurance process. Supplier intervention is only applied when suppliers underperform regarding these factors.

Moreover, quality and delivery precision are important factors that need to be measured [R7]. The delivery precision is however not measured, nor defined, as good as the quality parameter. Furthermore, there are other both subjective and fact-based measurements that are significant as well. For example, checking and measuring if everything has been achieved according to what was agreed in the contract. A respondent stressed the importance of measuring and the fact that, if you do not follow up, then nothing will happen [R7].

4.4 Overall Challenges When Working With Suppliers

This section presents the overall issues that occur within the organization when it comes to the SRM perspective. These issues concern the large supply base, lack of strategic orientation within SRM, challenges with communication, uncoordinated actions within the organization, challenges when working with different cultures, parallel systems and the importance of data quality and accuracy, as well as the lack of relationship focus.

4.4.1 A Large Supply Base

Prioritization of suppliers is mainly based on how much money is spent on the supplier and the size of the supplier. Respondents mentioned that the problem is that the company has too many suppliers on the operational level [R5; R9]. Understanding and improving the situation for everyone is not a possibility, due to the limited amount of employees working with all these suppliers. Suppliers with low spend are considered as non-critical and not much time is spent on these suppliers. As there are so many, and a large part are local suppliers supplying one or few factories, the responsibilities are delegated locally. If any major problems occur, the local purchasers can escalate it. The main work is therefore done around issue escalation. However, the baseline is that they handle it themselves from a local perspective.

A respondent described that the company is mostly working with leverage and strategic suppliers. This since they represent the opportunities with the largest impact from negotiations and further give increased profitability. The interviewee continued that leverage suppliers can generate quick savings and results are shown in a shorter time frame. The respondent further experienced that strategic suppliers require a long-term collaboration which needs more time and effort in order to generate or find savings. The results are seen after a longer time period. Not much effort and time are put on the bottleneck suppliers, except when it gets critical [R9].

4.4.2 Lack of Strategic Orientation for SRM and Focus on Short-Term Savings

For companies looking to really get the maximum value out of the value chain, SRM is described by a respondent to be a necessity [R8]. Through aligned objectives, at least with those suppliers that have an influence on the company's future and outcome, greater value can be achieved. However, the respondent described that today there is a lack of strategic orientation within SRM. The used approach is more operational and short-term oriented. Fundamentally, if looking at supplier relationships and comparing it to driving along the road and the suppliers are the gas providers. In the current situation, the company most often operates through making a stop, buy at today's price and then leave. In such an approach, SRM is not that critical. However, it could be an acceptable supplier-customer relationship if there is little or no long-term orientation. If looking at SRM on a higher level, one might start to realize that this type of operations is not what should be done in the future to stay competitive.

To get the technology that is needed from the supply base in the future a long-term perspective and commitment are needed. The respondent believes that SRM starts by realizing that value can be gained. SRM applies in all kind of places from strategy to day to day operations, however, without realizing the opportunities to create value, it will not have any impact [R8].

Further, the respondent describes how the company's product is very mature and also treated that way [R9]. The work with suppliers is to a great extent, done case by case, just as another respondent described with the parable of driving and refueling [R8]. As an example, there are no regular or scheduled follow-ups with suppliers. During the last year, a respondent had only one business review meeting with a supplier. This one was called for due to a problematic relationship. Following up on a regular basis is not implemented in the way of working. The respondent emphasizes from previous experiences in other companies that the lack of business review meetings is a problem, as it is believed to be an important and essential part of an SRM approach. An initial ambition is described to be initiating regular business review meetings once or twice a year with the top 30 suppliers [R9].

Based on the approach and the lack of regular review meetings the respondent believes that they are unstructured [R9]. Further, some sort of key account manager to provide a clear relationship owner is suggested for selected suppliers. However, the problem and reason for not having it lies in the structure of the company. As of today, there are too many factories and business units which complicate things and make the structure complex. If one was to collect the necessary data, such as delivery precision for a specific supplier, in order to have a good and constructive business review meeting. Then the data collection would be time-consuming and costly as calls to several factories and business units would be necessary.

4.4.3 Communication Needs to Go both Ways

SRM comprises all organizational levels, from the operational purchasers to the top management but with different tasks and intervals [R7]. The operational purchasers doing business in all countries and follow up with suppliers on a daily basis. They also feed information upwards in the organization to category managers. Regarding indirect material category managers, in turn, follow up together with suppliers key account managers on a monthly or quarterly basis to review and, if necessary, bring information further upwards in the organization. However, communication issues are not uncommon. The operational purchasers know exactly what problems occur in the interactions with the suppliers. Sometimes it gets lost in translation when passed upwards and focus is then on the wrong things. When this happens the supplier does not get the support nor clarity that they need. Communication should not only go upwards, it must be two ways so that the operational purchasers know that something happens too. For this to work, the clear ownership and knowing one's responsibility is emphasized by the respondent [R7].

Another respondent working in a business unit emphasizes one of the major issues to be the hierarchical organization since decision makers do not always consider the bottom line in the factories. High-level decisions are taken because savings are seen, however, the factory side and the operational consequences are forgotten about [R11]. The respondent agrees that crucial information gets lost in the hierarchy as previously described. What happens at the factory and business unit level does not always match. Communication between each other is crucial to succeeding. The possibility of frequent contact is that managers at the headquarters can better understand the actual needs. In this sense, the respondent argues that also some form of internal

alignment meeting is needed. The better they are connected to the headquarters the higher the probability is to succeed [R11].

There is often poor communication between factories and category managers in the company [R5]. The key problem is that some factories act on their own when setting up purchases, without communicating with the category managers. This causes a disconnection internally and misalignment with central purchasing. The problem is most common for geographically distant or smaller factories. Larger factories traditionally have a closer relationship with the headquarters and category managers. As of today, the maturity level increases and the issue is not as common as it has been. The company is working towards aligning factory purchasing and category managers, but there are still large improvements to do [R5].

4.4.4 Uncoordinated Actions within the Organization

The company may be experienced by suppliers as a complex organization due to the amount of contact and interaction points. Even if they went from a decentralized purchasing function into a centralized purchasing function about 5 years ago and improvements are ongoing, the coordination and communication are still not good enough. A result and weakness of this is that employees go uncoordinated to suppliers on different occasions. For example, employees from different departments, such as quality-, SCM- or the purchasing team, work on their own and do not communicate internally. This in turn results in a conflicting interface towards the supplier. The respondent expressed ambition and desire to work more towards the way Japanese industries work. Thus with one interface to avoid suppliers taking advantage of and exploiting the situation when there is a lack of coordination and poor communication [R4]. The inability to speak with "one voice" is also emphasized by another respondent who describes uncoordinated behavior as a major challenge arising from the large number of stakeholders within the company [R9].

It is also difficult to find consensus and negotiate on a global level. There is an internal competition where factories compete with the results of the negotiation. All factories try to optimize their own cost level, even though all of these factories belong to the same company. Negotiating on a global level might increase the cost for one or a few factories, while several other factories get reduced cost. Causing an internal resistance to the centralization process as it may drag down one who has worked hard for their agreement. This situation is more likely to occur when it comes to small suppliers who are not major global suppliers. The respondent does not think that it is possible to prevent this issue completely. However, it could probably be prevented for the largest suppliers, since they are more aware that they need to talk to the category managers [R9].

Additionally, the respondent emphasized that small and medium suppliers may feel lost when working with them. Working with such a big company, they get to see many faces and it may be unclear who is doing what. The work done by the people interacting with suppliers is very important to the supplier [R6]. Further, the respondent believes that the company has a lot of expertise and are often able to help suppliers. Providing suppliers with very basic help can have a significant impact on improving the relationship and build trust [R6]. Another respondent argues that supporting suppliers and their factories can only be done if having a structured approach. For example, when it comes to monitoring of performance, there is a developed tool to analyze. However, the respondent emphasizes that the next step would be creating a coordinated action and a structured approach which is not in place [R5].

4.4.5 Challenges when Working with Different Cultures

When working with suppliers, both in the case of starting up with new suppliers but also with current suppliers, a common challenge regards the way of building trust and commitment [R4]. How to work with suppliers differs a lot depending on the supplier origin and where it is located geographically. The respondent described that in China, one does not put as much weight in contracts and agreements, the focus in much more on the relationship. They are not willing to start talking about the technical details of a contract without having created a relationship. While German suppliers, on the other hand, put a lot of effort into the meetings and the technical details. Only when there is an agreement in place, emphasis could be put on the social and relationship building part. The cultural aspect as a soft factor is therefore of high significance. The way of working and organizing businesses also differ depending on if the supplier is within an automotive or industrial field, hence approaching suppliers with different backgrounds and processes is done in different ways. One common model does not work everywhere.

Furthermore, another challenge of the structure is the geographical location, when located closely, one can go directly to the supplier more easily and regularly, which in turn improves the relation [R5].

4.4.6 Parallel Systems and Poor Data Quality and Accuracy

Today the company works with purchasing through many different parallel systems. There are numerous legacy systems which are used locally, hence creates a struggle with the many system interfaces. The main reason behind this is that the company has grown through acquisitions and not integrated the new factories and business from the beginning. In addition to these many systems, the company developed their own system starting in the 1960th. This has been continuously improved over the years and used in major parts of the business as it has been very customized to the company. However, this system is now obsolete as there are difficulties with updates and also an emerged need for managing data in real time. Respondents are aware of the need to implement one system that is used globally and want it to cover all processes from supplier approval, the creation of contract and order to run smoothly. Implementing a new system is an ongoing project, however, they have not come as far as they would have liked to.

The tools in the system that is currently rolling out to the business units could be used for improved SRM practice. However, the system is still human dependent. Meaning that the better we are, the better the system gets. There is also a need for a balance between managing the tools and managing suppliers. If too much focus is put on the system, there will be a lack of human touch in the process and the relationship [R11].

Being able to access and present the right data is seen as a key to further develop purchasing actions and improve supplier management. One respondent emphasizes the possibilities of visualizing data in a dashboard, which is something that exists and is used regarding spend within indirect material [R7]. There is great potential in having all data in one place and being able to understand where most spend is, based on factory, region or own preference. Further, understanding delivery precision for a certain segment. These can be enablers for knowing what supplier to work with. Big problems may, however, occur if the necessary data and information are not available. The risk lies in that buyers focus on less important tasks and suppliers than they would have if all data was available. The visualized data should be easily understood and cover things such as spend and performance. Furthermore, things that may be

harder to measure such as how development with a supplier is like, or what projects are ongoing or in the pipeline, would also be beneficial.

Another respondent describes the need for improved data quality. It is one of the most important things for working better in the future [R9]. As it is today, there are too many manual interventions everywhere in the process. The respondent expresses a need for a system that is automatically updated with the key features such as delivery, price and status of the supplier. Preferably shown in a dashboard so that data can be collected easily in one place and be accurate. Complete data of high quality would ease a lot of work and enable working better with SRM. It would further enable review meetings with suppliers in which KPI measurements such as QDC-data, how the business goes, how relevant technology develops and other checks and follow-ups could be made on a regular basis without too much work on preparations.

4.4.7 Lack of Relationship Focus

In general, there is no SRM or relationship dimension as a part of the contract agreement with suppliers [R8]. It exists a particular type of contract called a "Relational Contract" that is designed to be used with SRM. It focuses on defining shared mechanisms for managing the business. One would think that the relationship dimension is worked with and well thought out, at least for the largest and most significant supplier. However, in reality, the respondent rarely works with it. When it comes to contract agreements, there are differences in how much effort is put depending on if being a strategic or non-critical supplier. Contracts are negotiations, hence the effort you are prepared to give differ depending on importance [R8].

A respondent discloses a perceived risk of working too closely with a supplier and SRM [R9]. If the company becomes too close and friendly with a supplier, it might get hard to make uncomfortable decisions and challenge the supplier. The respondent emphasizes that it is important to keep the balance in a relationship. A partnership needs to generate a win-win situation.

4.5 Employees View on SRM

According to a respondent SRM refers to being fully transparent, having partnerships, being well coordinated, having planned meetings, building plans together and lastly building trust between the company and supplier. SRM should be focusing on a few numbers of strategic suppliers, emerging from Kraljic segmentation. Furthermore, bottleneck suppliers can be special and require additional thought since they can pose a risk to the company. It is therefore important to treat them carefully and have something more than just a contract, another layer is needed [R4].

Another respondent thinks that SRM is about having a competitive partnership. It is about being transparent with the supplier through both giving access to information as well as coaching them. There is however no free pass to a competitive partnership, both parties need to put in the effort. The value added from SRM is believed by the respondent to come in terms of becoming an attractive customer. Particularly in the case of large suppliers, priority is given to customers who are attractive and where the relationship is good. Being prioritized results in getting access to innovation and new technology, which all buying companies do not get. Further, an attractive and preferred customer may get access to advance information. In the case of an expected strike or similar that will affect the supplier's deliveries, advance

information makes it possible to increase the stock level. By this, the company is prepared and able to avoid interruptions in the production [R9].

The company has no common SRM philosophy [R3]. However, SRM is by the respondent believed to include all activities that are in contact with suppliers, from the first contact until ending the relationship with the supplier. With other words, throughout the supplier lifecycle. The respondent considers SRM to belong in the strategic cycle, and not too much in the transactional since that is not where the relationship happens [R3]. How SRM is employed and implemented is considered to be rotating with the purchasing process [R9]. The contracts for existing suppliers are often renewed and/or extended, causing changes in the relationship. This process is a part of SRM and the respondents' motivation behind it being a rotating process. If being good at SRM, the respondent thinks there is a built-in long-term perspective on the relationship. It entails abilities to work with lowering cost as well as being transparent.

Communication is an important key when establishing the right network and partnership when it comes to SRM [R11]. The respondent explains that the company has good communication where the internal and external network is well connected. This has been developed and changed a lot in comparison to two years ago. Many problems have turned into opportunities, and they have been able to overcome trouble.

Another respondent emphasizes that they have not progressed as long as they could have when it comes to SRM [R8]. In terms of contracts, there are a few that have a stronger influence on SRM. However if truly looking at SRM as a driving factor, there are a lot more that could be done. The key things involve shared goals, objectives and management interest and initiatives. As well as having a basic understanding that some suppliers matter and should be given more effort and be treated differently. SRM should be for the most important suppliers and work in order to get a collaborative approach. It all comes down to balancing risk and reward. To implement SRM, purchasing management level at least needs to be involved, preferably even higher up in the organization.

One interviewee believes that SRM could minimize risk and maximize opportunities. Looking at the company in a helicopter view and exemplifying with CRM, SRM could enable seeing the big operation and track activities running with suppliers. The respondent emphasizes that SRM is most crucial in a higher level perspective. However, it needs to be aggregated from the bottom up. If going for a top-down approach the respondent believes that it would be difficult to get the factories to act in line with everything [R11].

A future improvement area in order to minimize the incoordination within the organization is to implement a governance structure. The company needs to organize and establish more structure within the company. For example, all major suppliers should have a host. Theoretically speaking there are currently responsible buyers and a structure, but these buyers are only involved if problems occur and someone appoints them with the issue. Instead, a host needs to take full responsibility and follow up and focus on having regular meetings [R9].

4.6 Learnings from the Customer Side of the Company

On the customer side of the case company, a CRM process is in place. The process covers from having a lead in terms of a meeting or interaction that opens up for interest. The lead can turn into an opportunity from which an offer is made and hopefully an order closes the deal. A CRM system is in place to support the process for the salesperson and their managers. The system is

considered necessary to get an overview of the process [R10]. The process from lead to sold goods can be followed in a log of all interactions, from a customer contacting customer service to a customer meeting. The respondent believes that a similar setup could be possible on the supply side of the company where there instead of customers and opportunities are suppliers and offers that are considered.

In addition to the basic information about each customer, there is much information in the CRM system. The respondent described several KPIs that are collected and followed up at monthly management meetings. These range from:

- Number of opportunities, their sales volume, and monetary value
- Number of visits to customer
- Planned versus unplanned visits, where planned visits are preferred
- Percentage of visits linked to opportunities
- Opportunities with the highest potential
- Top 10 lost, won and created opportunities

Further, the CRM-side keep track of the reasons behind a lost opportunity, which is evaluated from a number of options such as price, canceled project, technical approval, no potential, delivery time, relationship or assortment. In the same sense, the supply side could gain knowledge from tracking the reasons behind not choosing an offer. Doing so could help make a better and quicker decision in a future situation.

In addition to the mentioned KPIs, the customer interface also use a so-called sales funnel. In the sales funnel all prospects and their movement through the sales process is tracked. The sales funnel shows an overview of how many prospects are in each step, and for how long they have been there. Different business may take different time. For transactional business, something should have happened in a month while an automotive process concerning a new car model may take years. However, this funnel is used to follow up and be able to proactively notice if there are issues somewhere or a certain customer needs interaction. Tracking movement through the process could help also the supply side to work in a more proactive sense [R10].

5 Results

In this chapter, the results of the study are presented. The first research question "What are the current operations of managing suppliers like?" and the second research question "What are the most relevant tools and process to manage suppliers?" represents the key results from current operations as well as literature which are presented separately below.

5.1 Current Operations in the Case Company

The first research question is answered through the current operations in the case company. The complete results are found in *Chapter 4*, however the summarized results are presented here. The company has a well-elaborated process for purchasing, containing both a strategic and an operational cycle that is connected by a bridge of contract and SRM. One strength of the company is the strategic process with segmentation and prioritization of the supply base, which is done through the Kraljic matrix and an ABC model. Respondents express that the company has no common SRM philosophy. This process lays the foundation for the continuous work together with the suppliers and minimizes risks and issues later on.

SRM is related to all interaction points with the suppliers, everything from ordering to measuring and follow up on what has been agreed earlier in the strategic sourcing phase. To refer back to what a respondent mentioned, what needs to be done later is dependent on what has been done earlier in the sourcing. After the contract is signed the daily business goes on in the operational cycle in the process of procure-to-pay. In this process, several issues arise. Most of them refer to the need for manual intervention due to small issues that cause subsequent errors. All these manual interventions throughout the process create an inefficient process.

The company uses KPI measurements in Quality, Cost, Delivery, Innovation and Management, when measuring supplier performance. However, the focus is mainly put on Quality, Delivery and Cost. Supplier intervention takes place if a supplier underperforms regarding quality or delivery and the issue is escalated. Apart from the quality assurance in the supplier approval process, nothing is done unless there are problems. Issue escalation is the only course of action when problems arise. The solution provided by the SQA- and Supplier Development team is to educate the suppliers in order to correct and avoid future errors, thus find the root cause of the problem. The main issue when stepping in and helping suppliers, is that suppliers are not always willing to be transparent towards the customer company, hence, a game like situation occur.

Respondents express an awareness of having an orientation and mindset of creating a win-win situation between the company and the supplier. These respondents have acknowledged the importance of having the right approach towards the suppliers and always treat them with respect. Furthermore, they acknowledge the significance of gaining credibility and be credible through helping the supplier and showing expertise in order to achieve mutual trust between each other. Another expressed important aspect when visiting the suppliers is to never have a controlling or monitoring approach, but instead, be there to provide support. Furthermore, as a global company, they work with suppliers all over the world. This brings up the challenges of working with and approaching suppliers differently depending on their culture and context, which makes it obvious that one way of working is not always possible.

The company faces several challenges. One of these is the large supply base, which results in not being able to focus on all the suppliers. Responsibilities are in many cases delegated locally

and the main work is done through issue escalation when problems arise. This demonstrates a reactive way of working, rather than proactive.

Today, there is a lack of strategic orientation for SRM within the case company. The approach used is primarily operational and short-term oriented, in other words here and now. Acting here and now could be acceptable if there is no long-term orientation. However, in order to stay competitive for the future, a long-term focus is something the company wants to strive for which is also emphasized by respondents. Moreover, respondents believe SRM could be used in order to gain value. However, it will only have an impact if realizing the potential of value creation. Furthermore, following up on a regular basis is not implemented nor structured in the way of working today. This is emphasized by a respondent to be a major SRM related problem.

Uncoordinated actions within the organization are another major challenge. This occurs as employees from different departments and business units go to suppliers on different occasions without aligning. This sometimes causes a contradictory interface toward the supplier. The orientation and desire of respondents are to have one interface and speak with one voice. However, in the current state, several respondents express awareness that the organization is uncoordinated and may confuse suppliers, who further can exploit that situation.

When it comes to communication, there are challenges on the internal side, which are behind the uncoordinated actions. The internal communication is essential, and in the case of operational purchasers reporting upwards in the organization, it is expressed that there sometimes are issues in understanding the actual problem, as things get lost in translation. Furthermore, action or information need to come back to the operational purchaser. Communication can not only go upwards, it needs to be in two ways. Furthermore, communication between factories and category managers are sometimes poor. There is a challenge of misalignment with central purchasing, where some factories act on their own when setting up purchases without involving the category managers. It is challenging to find global consensus and negotiate globally as there is resistance from the factories that have negotiated a good deal themselves, thus would not benefit from a global agreement. This creates internal competition, where all factories optimize their own part without considering the company as a whole. A respondent express that the company is working with it and further claim that the maturity level increases over time.

The fact that the organization is uncoordinated and factories misaligned with central purchasing has probably arisen from the company's history of expansion and through its acquisitions over time. This has also led to that the company is working with purchasing through numerous different parallel systems. There are mainly legacy systems that are used locally and create a struggle with the high amount of system interfaces that need to be connected and aligned. There is an ongoing project of implementing one system globally and is well aware of the struggle.

5.2 Tools and Processes for SRM

The second research question is answered based on the literature findings. The complete findings of tools and processes are found in *Chapter 3*, however the summarized results are presented here. SRM is an overarching topic that covers several areas. If implementing and working well with SRM gives huge power and the possibility of gaining a competitive advantage. The power of SRM is truly emphasized by the fact that Dash et al. (2018) argue SRM to be the backbone of SCM since suppliers act as strategic partners and not only supply goods. This makes the role of suppliers more significant in the value chain. Something that is

further highlighted by Lambert and Schwieterman (2012) who mean that SCM eventually is all about SRM since supply chains are managed relationship-by-relationship to finally form a supply chain. The most relevant tools to use and understand in order to get the most value out of SRM can be summarized in the five key areas presented in *Section 3.8*. The key areas, in which managerial tools and implications are given are *Holistic Approach to SRM, Segmentation of Suppliers, Relationship Management, Performance Measurement and Supplier Development.*

The first and foremost main area is to understand the importance of an underlying holistic approach to SRM. The foundation of holistic strategy requires a corporate level strategic and holistic approach as well as the purpose of SRM being long-term relationships with the aim of enhanced value and mutual growth (Park et al., 2010; Lambert and Schwieterman, 2012; O'Brien 2018). The keys tools of a holistic approach lie in the understanding of being a part of an end-to-end flow, where everything is based on being attuned to one another and the fact that one contributes to a whole. An SRM approach should focus on the long-term perspective and what value could be gained over time, instead of short-term gains. From the definitions of SRM, it is strongly emphasized that value should be created for both parties based on a mutual commitment to long-term collaboration and shared success (Lambert and Schwieterman, 2012). Furthermore, a key tool is to understand the underlying mindset of collaborating to create a win-win situation. Collaboration is necessary both internally with coordinated cross-functional engagement, but also externally with suppliers. Also, an understanding of the value that can be achieved is needed. Without knowing what to strive for, it is difficult to get there. From a fully implemented SRM, there is value to gain from:

- Performance improvement
- Effectiveness of operations
- Innovation from the supply base
- Reduced risk
- Increased process efficiency
- Effective communication
- Customer preference
- Profit value

The second area is Segmentation of Suppliers which is part of strategic sourcing. Based on all reviewed frameworks that suggest some form of segmentation, prioritization and/or strategic subdivision of suppliers. Sourcing and segmentation should be taken seriously since bad input is likely to result in bad output as well. The key tools to utilize in this stage is Kraljic and portfolio approaches as well as prioritizing. It is important to do it right from the beginning to know where the focus should be put. A good segmentation and input information regarding the suppliers lays the foundation of how to execute SRM.

The execution of SRM leads into the third area being Relationship Management. All suppliers are not the same. Since resources are scarce and should be put where they are needed and most value can be achieved, they should not be treated the same way either. Based on the segmentation and prioritization of suppliers, work can be done only with those suppliers that are important or critical to the business. It allows putting effort where it makes a difference. Utilizing supplier interaction models and a relationship-based approach is a cornerstone in getting the most out of SRM (Hughes 2010; Park et al., 2010; Lambert and Schwieterman, 2012; Schuh et al., 2014; O'Brien, 2018). Consequently, the segmentation decides how to act and manage specific suppliers based on what behavior one wants to drive from a specific

supplier. The key tools here are the interaction models as well as the understanding of what behavior to drive from the supplier. Furthermore, the six core values are of high significance when it comes to building relationships.

The fourth area is Performance Measurement. Measuring performance can be done with a wide range of KPIs, which should be adapted to the context and what one wants to get out of it. As Amaratunga and Baldry (2002) argue, the measurements need to have a purpose. Measurements should be both tangible and intangible, hence covering both hard and fact-based factors such as quality or time, but also softer measurements such as the level of trust. The most important tool regarding performance measurement is how to make it effective and use it to drive action. The key to do this is by closing the loop. After measuring and getting the results, review and feedback are necessary in order for improvements to be made. If no action is taken, there is little to no need to measure in the first place. Closing the loop enables improving the future outcome (O'Brien, 2018).

The last area is Supplier Development, which in the case of SRM closes the loop as supplier development is about giving feedback to the organization and the supplier in order to unlock and also sustain the value from SRM. It requires having the organizational structure in place and acting in a coordinated manner towards the supplier, based on the relationship interaction model. Too many interfaces can confuse the supplier. Supplier development should be aimed at engaging the supplier in for example long-term cost reduction thus results in the supplier being more proactive with their requests as they also benefit from it (van Weele, 2018). Further, the key is to motivate suppliers to improve their operations to get more out of them. Without forgetting to give something in return as suppliers will not give and open up unless they also benefit from the initiative. By helping the supplier or acting in a preferred way for a certain relationship, it can drive them to share experience and knowledge. The key is to get the supplier onboard. To do so, it requires viewing the company and activities through the eyes of the supplier. If suppliers are not willing to act together, they will not be able to gain any competitive advantage in the long-term. Furthermore, another key tool is acting upon measurement to improve and develop suppliers.

6 Discussion

This chapter answers to and discusses the overall purpose, how SRM can empower the purchasing and supply management in a global manufacturing company. The third research question, "How can SRM activities be enhanced in order to gain process efficiency and generate value for the case company?", provides a discussion of how the theoretical tools could be implemented into the current operations. This is done in order to give suggestions to the organization of how SRM could be employed and contribute with additional value.

6.1 Implementing the Underlying Holistic Approach

As it is today, the company has no common SRM philosophy. It is based on an individual level and interpretation of the concept differs depending on the individual. The scope of SRM is mainly based on measuring Quality, Cost, and Delivery and making an intervention when things have gone wrong. To employ SRM and generate value from it, the company need to align and understand its' importance in a holistic manner, not only look at supplier performance management with three parameters. They need to create and implement a common philosophy together with specific targets and goals of what value is aimed to achieve. It can be in terms of the previously described values in *Section 5.2*, however, it further needs to be defined where and also determined how to achieve it in a strategic plan. In this strategic plan, an understanding of the end-to-end flow of value from sourcing, transforming and satisfying, as well as long-term perspective needs to be communicated and truly understood.

Today, the communicated message from top management is highly savings oriented. This is the reason behind the observed focus on short-term actions and cost reduction. Furthermore, the reason behind the lack of strategic orientation of SRM, where suppliers are generally treated as gas stations. The communicated message and organizational aim need to be more focused on value and have a long-term perspective to stay competitive. Suppliers must be viewed as strategic assets who are valuable for creating the maximum end value to the customer and not only a cost center. Some respondents express an awareness of the need to provide help and support to the suppliers and not only focus on the price reduction. This is of high importance in order to support and grow together with the supplier in a win-win relationship. Furthermore, the objective of cutting cost is in conflict with the philosophy of value creation, which is key for SRM implementation. Keeping this savings oriented mindset makes implementing SRM complex and complicated (Peek and Verweij, 2013). Some segments might however still have a cost focus and employing SRM should not be excluded because of that, a balance must be strived for.

6.2 Coordinating the Supplier Interfaces

Another improvement to be done in order to gain efficiency and profit value by the means of SRM is to coordinate the front towards suppliers. As the organization looks today, where responsibilities to a great extent are delegated locally, there is a vulnerability in the uncoordinated actions towards suppliers. Factories and departments go to suppliers on different occasions without communicating with each other nor being aligned, which send a mixed message. Further, this causes an internal competition, where every part of the organization wants to maximize their own profit and value without seeing the whole picture. Which gives suppliers the opportunity to exploit the incoordination as they are quick to figure out how to best invest their time as well as resources (O'Brien, 2018).

The SRM philosophy of driving supplier behavior can only be done if presenting a united message to the supplier, which requires good internal communication and cross-functionality. Poor integration between functions ultimately leads to an excessive risk of preventing the integration of suppliers (Ellegaard and Koch, 2012). The governance structure needs to be used proactively with regular review meetings, clear responsibilities and accountability, not as the current state where it is mainly used in a reactive manner. Furthermore, the aim of each individual important supplier, their needs and opportunities must be aligned. This could be done through using the P1-governance structure with clear roles and where there is a go-to person who is the relationship owner for a certain relationship. This, in turn, would enable effective communication and consistency both externally and internally. Further, a united front with a clear and the same message from across functions enables the supplier to help the company in the most efficient way (Schuh et al., 2014). Which is something that can contribute to competitive advantage and be value adding.

6.3 Managing Relationships

It is suggested to understand and make use of a supplier interaction model. This in order to know how to act based on how a supplier is categorized. Making use of guidelines and managerial implications from the interaction models can be the key to bringing the relationship one step further or drive the desired supplier behavior. An own supplier interaction model can be developed by the company, in order to be adapted to the context as well as company aim and strategy. Furthermore, as things vary over time and movement in the interaction model occur, the knowledge of where a supplier is located need to be updated regularly. Doing it right, the movement should be in the desired direction. Furthermore, a suggested way of developing suppliers to the desired level and working toward a partnership with selected suppliers are as in the presented *Figure 3-14*. Where it is suggested to begin with understanding how the supplier works, turn rivalry into opportunity, supervise them, develop the suppliers' technical capabilities and further share information intensively but selectively in order to reach the top and be able to conduct joint improvement activities.

In order to develop suppliers, however, there are parameters that are significant in order to build and maintain relationships successfully. First of all, having aligned and shared goals when starting a relationship is key in order to reach success. Secondly, building trust and committing which comprises both parties is vital regardless of the relationship type. Lack of trust and commitment creates obstacles when it comes to long-term integration. Trust can be strengthened by open lines of communication, being transparent towards each other through both sharing information and supporting each other. Lastly, a key factor to create additional value is to have the other party's profitability in concern, which is vital in order to create a win-win relationship. If a supplier does not get anything out of the relationship, they will not put effort into it and thus find other buying companies to work closely with. Without suppliers that are willing to mobilize resources, a company cannot gain a competitive advantage in the long-term (Ellegaard and Koch, 2012). This is why investing in a relationship that is on mutual terms, with shared goals and concern for the others profitability is of high significance. If not, no value at all will be gained.

Several respondents believe that the company still has a long way to go when it comes to SRM. There is a challenge of building trust and commitment with suppliers. It is even described that there is a perceived risk when working too closely with a supplier, hence fear of getting too close but also that they are better off by themselves. There is a need to dare to open up, share and gain in the long-term from win-win relationships. However, with numerous types of

possible relationships, the main challenge is to adopt the right relationship with the right supplier, which further should be on equal terms. Respondents believe that value can be gained if the buyer-supplier relationship improves. Something that can be achieved from SRM, which is by respondents seen as full transparency, partnership, well coordinated, planned meetings, building plans together and also create mutual trust between both parties. Which is accurate and in agreement with what literature suggests.

6.4 Eliminating Process Inefficiency

In the procure-to-pay process, several issues that need manual intervention arise, which causes process inefficiency. These errors occur over and over again and are primarily solved temporarily when they cause a problem, without being solved from the root. In order to gain process efficiency, one step is to find the root cause of the problem, even if that means rejecting the invoice which might feel offensive. As a respondent expressed, suppliers who receive a rejection on their invoice solve it in 66% of the cases and the error is less likely to occur again. Finding and eliminating the root cause can be done by using the conceptual tool called 5 why. If measuring process compliance problematic suppliers could be identified and improvements found. By doing so, a smooth flow, as well as a proactive way of working, is likely to be achieved. However, the process compliance should be followed up to enable acting upon measures. Furthermore, there are possibilities of automating the process by for example oblige suppliers to send invoices through EDI.

6.5 Utilizing Measurements

Metrics used should not only be outcome-oriented as the leading measures of quality, cost and delivery, which are widely used in the case company. Further indicators such as simplicity and transparency that contributes to a more proactive way of working should be included as well (Hudges, 2010). The measurements must have a purpose and be followed up in order to drive continuous improvements, otherwise, it will not be effective. Performance measurement can hence act as a tool in order to create effective management. Moreover, the measured KPIs can be used when following up with the supplier regularly. This is something that is not implemented today but is recommended to be implemented in order to gain process efficiency and create value from suppliers. It is recommended by Lambert and Schwieterman (2012) that the management team should arrange performance review meetings regularly together with the key suppliers in quarterly meetings. Less critical suppliers can have biannual meetings.

Furthermore, to be able to use the KPI measurements to its full extent, the data quality must be improved and easily accessible. What are measured needs to be consistent in order to enable comparing and have one common understanding of performance. The most important part lies in being aligned about what should be measured and how it should be presented. Which enables that it can be followed up in a systematic way and thus the review meetings to be effective. Moreover, going towards one system as the company is currently doing, and eliminating the numerous parallel systems is a good starting point in order to take the work with SRM one step further.

Lessons can be learned internally from the customer interface, where there is a set agenda of what is followed up with their opportunities and leads. This is done both in terms of specific KPIs and also a sales funnel, which gives an overview and understanding of the process and status. The funnel enables working proactive and notice when things seem to slow down, before it is too late, something that the supply side needs to improve on.

Today, the supply side is very reactive in its way of working, hence most interventions are based on issue escalation. By implementing means to be more proactive, such as the already mentioned review meeting, process efficiency can be increased and issues solved before there is an emergency. If data quality is consistent, there are several possibilities with new technology that could further increase the efficiency of the process. These are among others visualizing data and making use of proactive alerts which sends out a message, for example, if there is a negative trend for a certain supplier. This enables noticing that something is happening before it actually happens.

7 Recommendation

In this thesis, it is explored how the implementation of SRM can unlock value from supplier relationships in practice for the case company. In order to gain value from SRM, some observed ways of improving processes are identified and recommendations regarding these are made based on the key areas from the synthesis of literature in *Section 3.8*. The recommendations based on area is shown in *Figure 7-1* and summarized in *Table 7-1*. They are further described in text one by one below. The company is suggested to classify and target the ones that they regard of high importance.

Table 7-1, Summarized recommendations.

|	Area	Current	Suggestion	Unlocked value
1.	*Orientation, goals and vision*	Savings oriented, no common vision of SRM	Focus on value and have a long-term mindset, balance cost and value, implement a common mindset of SRM	Customer preference, Innovation from the supply base
2.	*Coordinating purchasing*	Uncoordinated actions	Align global organization, minimize internal competition, clear responsibilities and KPI follow up	Effective communication, Effectiveness of operations
3.	*Segmentation*	Process in place	Improve acting upon segmentation and educate	Reduced risk
4.	*Governance structure*	Multiple interfaces to suppliers	Utilize governance structure with a go-to person and clarify activities	Effective communication, Effectiveness of operations
5.	*Managing relations*	Dependent on individual	Utilize supplier interaction model and guidelines, act based on segmentation, work systematically, educate employees	Effectiveness of operations, Profit value, Reduced risk
6.	*KPIs*	Measuring QCD	Continue with QCD, add soft measures and improve following up on measurements, be proactive	Performance improvement, Profit value, Reduced risk
7.	*Review meetings*	Reactive response	Regular structured meetings in order to be proactive	Increased process efficiency, Effective communication, Profit value
8.	*Procure-to-pay process efficiency*	Errors and manual intervention	Automate processes, identify and eliminate the root cause, include follow up in the review meetings	Increased process efficiency, Effective communication
9.	*Internally follow up SRM*	Not existing	Track number of and the reason behind meetings with suppliers, evaluate SRM initiative	Innovation from the supply base, Performance improvement
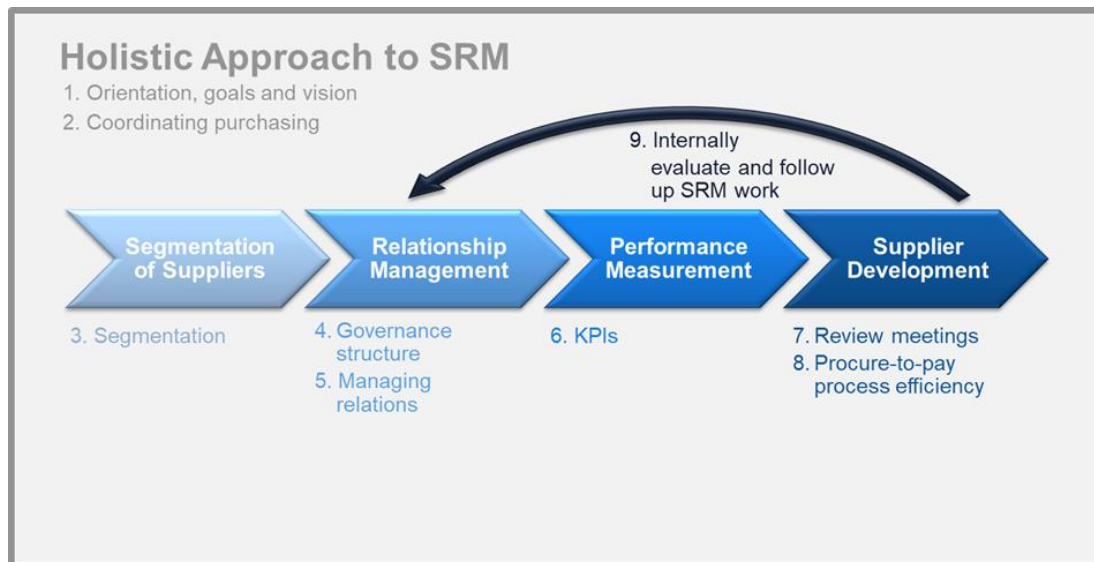
Figure 7-1, Recommendations based on the synthesis of literature.

1. Orientation, goals and vision
The company should be more focused on supplier value and apply a long-term mindset when managing supplier relationships. The wider organizational strategy and orientation of focusing on cost and monetary values need to be more focused on an end-to-end perspective and the long-term value that can be created. The price is of course what you pay, however, the value is what you get. Thus, the focus needs to be on maximizing the value for the money spent. Looking at cost will still be important, however, it should not exclude an SRM focus on the relationship and potential value, there needs to be a balance. Additional value can be unlocked from SRM practices, in order to do so, the mindset as well as structure and activities needs to be in place.

There is no common understanding or philosophy of SRM in the company. Developing the overall mindset and strategy involves the top management who has the greatest role in shaping the purchasing and organizational strategy. In the strategy, which further needs to be communicated to the organization, more emphasis should be on SRM and the importance of relationships. Suppliers must be seen as strategic assets, not just cost centers. By looking beyond the cost, including and putting emphasis on the different values that can be gained from SRM, the company can gain competitive advantage, get innovation from the supply base. Furthermore, they can become a customer of preference, who will get a better and quicker response from suppliers. Hence, a stronger role in the end-to-end supply chain perspective can be achieved.

2. Coordinating purchasing
The company should apply a common and defined way of how to work with and manage suppliers. There is ongoing work of having a more centralized way of working with purchasing, which is good. For example, the implementation of one system will bring out value from efficient processes. Furthermore, through having one system, purchasing organization can be more coordinated and aligned in its' actions as the information is in one place.

Much responsibilities are still delegated locally and there is an observed internal competition between factories and/or business units. More work should be done in order to get everyone in the organization on board and aligned as a global company. A structure with clear responsibilities (further described in recommendation *4. Governance structure*) and processes

of how to manage and follow up in relationships (see more in recommendation *5. Managing relations*) needs to be in place to work systematically and coordinated. Moreover, it also opens up to have one face towards the supplier and be able to communicate a consistent message throughout the organization, which unlocks value in terms of effective communication and the effectiveness of operations. To be able to present a united message to the supplier, good internal communication and cross-functionality are required. Poor integration between functions ultimately leads to an excessive risk of preventing the integration of suppliers, thus this is of high importance.

3. Segmentation
Differentiation of suppliers is done in the strategic sourcing where there is an elaborated model and process for segmentation based on Kraljic matrix. The process can be maintained as it is. However, the understanding of its value and the importance of segmentation could be emphasized more as there is little empirical evidence of actual usage of the segmentation in daily work. Furthermore, prioritization is made in an ABC-model, and regard mainly performance and delivery. The recommendation is to maintain the segmentation process but educate and have trainings with the users in order for it to be used in daily work. Operations need to be formed in such a way that the benefits can be drawn out of segmentation. Segmenting suppliers can contribute to reduced overall risk and also lays the foundation recommendation *5. Managing relations*.

4. Governance structure
As the company has limited resources to work with, it is important to have guidelines on how to make use of the available resources in the best possible way. A governance structure with clearly assigned ownership needs to be in place and aligned with the aim of each individual important supplier, their needs and opportunities. There is today an organizational structure in the company with Global Responsible Purchasers (P1). It is stated in the responsibility clarification that the P1 should serve as the primary contact between the company and the supplier, manage SRM activities with the supplier and coordinate sourcing activities towards the supplier. This is however vague in what actually should be done and why, which causes that the structure is mainly used when things go wrong, and someone should be held responsible. This structure is thereby used in a reactive way as a response to negative situations. It is recommended to use the structure and the P1 as a go-to person for a more preventative purpose with a set process and known activities for selected suppliers. From this, a more proactive way of working will be achieved with important suppliers. Fully utilizing the structure would prevent the buyers and departments from going to suppliers on different occasions without coordinating the message on a company level. This would enable consistency and value from effective communication and further allow the supplier to help the company in the most efficient way.

In order to gain effectiveness of operations, it is recommended to clarify processes and activities that are assigned to the P1. What activities can and should be done, with whom should they be done, and how often. Some suggestions are:

- Manage relationships based on interaction models and previous segmentation, see recommendation *5. Managing relations*.
- Conduct regular review meetings with selected suppliers, see recommendation *7. Review meetings*.

Furthermore, the P1 must understand what's in it for them to spend time on these activities. As purchasers are mainly measured in terms of cost and savings, this proactive work is harder to motivate. This comes down to the importance of the first recommendation 1. *Orientation, goals and vision.* The basic principles in the company need to have elements of value and a long-term perspective with relationships in focus and suppliers as strategic assets. Understanding this can help to motivate proactive work with suppliers. Moreover, the category organization and/or management need to follow up that this work has been done by respective P1.

5. Managing relations
Managing relationships should be done in a systematic way throughout the company, with clear processes, structures and roles. Today, relationships are handled mainly as a response to negative happenings, and not much is done up until things go wrong. There should be agreed ways of operating with suppliers depending on segmentation and classification. It is important to make sure operations draw the benefits out of the segmentation. The standardized and agreed ways of working can be made in different formats such as a checklist or guidebook, what is most suitable and would be used to the greatest extent is up to the company. In order to implement a common operating framework for all interactions with suppliers, utilizing and/or adapting a supplier interaction model from *Section 3.3.4* to the company context and strategy is highly recommended. Through this model, a common systematic way of operating is agreed. Furthermore, for the implementation to work the buyers need to be educated in how to use the interaction model.

Most focus should be put on a few selected strategic suppliers, who are of the greatest importance to the company and found at the top of the prioritization triangle. Who these suppliers are needs to be identified in order for SRM activities and regular follow-ups to be carried out with them. Also, the objectives of why and what value and benefits SRM with the supplier could bring to the company as well as what actions would draw value for the company need to be thought of for every important supplier. The suppliers in the middle layer require some attention and should also be followed up and managed to some extent, however not as much as the ones of the highest importance. The large mass of suppliers in the bottom layer needs no more attention than necessary. The most important thing here is that the transactional flows work well. It is suggested to have a developed approach with all suppliers both the important ones that require SRM, but also the bottom with transactional suppliers so that they are handled efficiently and systematically without excessive effort, beyond the contract and purchase orders.

With a long-term orientation and commitment regarding the suppliers of high importance, value can be gained from sharing information and knowledge. When including suppliers in the own company's processes, there is an opportunity to both meet customers' demands better as well as shorten time to market, things that can generate more profit for the company. It is important to identify these revenue implications from managing supplier relationships and not only focus on measuring cost reduction and asset utilization.

6. KPIs
In current operations, KPIs in terms of quality, cost and delivery are widely used. The recommendation is to look at KPIs with new eyes, work in a more agile way and with a value-driven orientation. This in order to further include other more soft measures such as simplicity of operations, transparency and process related measures in order to work more proactively. The focus on only outcome-oriented metrics results in the reactive approach that is observed in the company today. This could result in performance improvements, profit value as well as

reduced risk from enabling proactive work. Furthermore, process compliance and the quality of processes, for example how much human work is required in the procure-to-pay process, should be measured. This would enable identifying problematic suppliers and find improvements in the processes.

7. Review meetings

There are currently no regular review meetings and the main work is done through issue escalation when problems occur. To enable working in a proactive way and with a long-term orientation, the recommendation is to implement regular performance review meetings with important suppliers. The go-to person in the governance structure (described further in recommendation *4 Governance structure*) is responsible for conducting the meetings. It is suggested that these are performed quarterly with key suppliers and biannually with the ones that are slightly less important.

What should be reviewed and further reported internally should be aligned in the company so that the follow up is done in a systematic way, and thus can become effective. It is, therefore, suggested to have an aligned structure of what should be measured and how it should be presented. Having planned review meetings could streamline communication, build trust, and secure profitable and mutual growth. Furthermore, it would increase process efficiency and enable profit value from a long-term perspective. A suggestion of what to bring up to the regular review meetings are among others:

- A business update, about anything that could have an impact on performance or the relationship.
- Ensuring and discussing if the company and supplier still are on the same page and have a common goal.
- Align that the used KPIs are suitable for the supplier.
- Review KPIs
- Check the progress versus the set targets and update targets in order to know how to proceed.
- Agree on actions in order to improve and in order to meet evolving needs, it can regard innovation, growth and future opportunities.
- Provide constructive feedback to each other, by doing this, it will contribute to transparency and open communication.

8. Procure-to-pay process efficiency

There are a couple of issues that occur in the procure-to-pay process which causes process inefficiency. This comes from the numerous manual interventions that are needed both when it comes to purchase orders, goods receipt and invoicing. The main issues in the process steps are:

- Regarding **purchase orders**, there is little or no information preassigned when creating the order, which causes complexity to the process. Incorrectly completed orders are a common primary cause of errors. Implementing smarter systems, which can preassign more information and/or that can detect for example the unit of measure for a specific good would improve the process
- Regarding **goods receipt,** the main problem is that regarding missing goods receipts since it needs to be actively completed when the goods or service is delivered. In order to improve this, there should be clear instructions and scheduled notifications, or reminders could be utilized.

- Regarding **invoices,** which can be received in both EDI and paper format. Invoices on paper require a lot of manual handling and intervention, inserting them into the system, make sure that the information is correct as well as readable. A suggestion is to oblige suppliers to use or reward those who use the EDI-system, which makes operations smoother and automated.

This causes a large administrative workload and results in waste and unnecessary work, which affects the transactional flow. For the large number of suppliers that are handled by the company, this flow needs to be smooth and efficient. In order to improve, the process compliance should be measured and followed up.

The currently ongoing project of identifying leakages within this process is a great step towards solving major issues. It is observed that errors occur over and over again and is primarily solved temporarily when they cause a problem, without being solved from the root and confronting the one responsible. The findings from the project, that suppliers who receive a rejection on their invoice solve it in 66% of the cases and that the error is less likely to occur again, means that going to the root cause of the problem helps. The orientation should, therefore, be to solve the root cause by eliminating the problem where it first occurred, to be able to work proactively. The conceptual tool of 5 why is recommended to use. Moreover, it is also important to provide constructive feedback to the supplier and at the same time act transparently towards each other. This will strengthen the relationship between both parties by building trust and sharing information, which can, in turn, increase the process efficiency as well as an effective communication towards each other.

9. Internally evaluate and follow up SRM work
It is suggested to track the number of visits and/or meetings with suppliers in the same manner that the customer side of the company does. Furthermore, the percentage of visits linked to SRM or proactive activities versus visits that are of a reactive nature could be tracked and mapped out. It can further be reviewed internally that employing SRM harvests the value and benefits that is aimed for. Moreover, also that work is done with the right suppliers and relationships evolve as planned.

This would enable following up that SRM is employed and that the company is going in the right direction, hence towards being more proactive and unlocking innovation from the supply base as well as improves performance since reviewing and working with continuous feedback drives improvement.

8 Conclusion

A case study was performed at a Swedish manufacturing company, where 13 qualitative semi-structured interviews were conducted. The purpose of this thesis was to provide *how SRM can empower the purchasing and supply management in a global manufacturing company.* In order to do that, an understanding of the company's current state of managing suppliers as well as best practice from literature was identified. This was identified in order to provide suggestions to the organization of how they can enhance the SRM activities to be able to gain process efficiency as well as determine how value can be created from SRM. Nine recommendations were provided based on the observed operations and the literature review. These concretize how the company can gain value and competitive advantage from SRM.

The findings of how SRM can empower the purchasing and supply management lies in the literature synthesis of five areas that are interrelated and need to be worked with as a whole. These areas are *Holistic Approach to SRM, Segmentation of Suppliers, Relationship Management, Performance Measurement, and Supplier Development,* and they all have their respective tools and managerial implications for employing SRM. It is of great importance to manage supplier relationships and acting upon context and measurements. Value can be gained after the contract is signed from utilizing the right tools and understanding the underlying mechanisms in an SRM approach. Overall performance can be improved through the effectiveness of operations and increased process efficiency. Ultimately, the right approach and effective communication can lead the company to become the customer of preference, which in the long run come from the supply base. All these factors can contribute to future competitive advantage and profit value.

The result of this master thesis shows that there is a great potential of implementing SRM in the case company. There are several challenges regarding operations on the supply side that can be improved by the means of SRM. In order to unlock value, suppliers need to be managed more strategically in a long-term perspective where continuous review meetings are implemented. They should apply a common and defined way of how to work with and manage suppliers. This would enable a more proactive way of working rather than the observed reactive actions. A key value that can come from this is performance improvements since reviewing and working with continuous feedback drives improvement. Moreover, the company need to implement a common mindset of SRM and put more emphasis on value rather than only cost. Focusing more on value and having a common mindset of SRM can bring value in terms of being the customer of preference, enable innovation from the supply base and further SRM can bring value from effectiveness of operations, effective communication and reduced risk. By including suppliers into the company's processes through review meetings, it gives an opportunity to both meet customers' demands better as well as shorten time to market, things that can generate more profit for the company.

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Appendix A - Interview Guide

Intervjufrågor på Svenska
1. Vad är din roll/titel?
   a. Var i processen är du involverad? (hjulen eller de 7 stegen?)
   b. Vad för interfaces har du med leverantörer? när pratar du med dem? Lika mycket med alla ?
2. Hur ser du på SRM i företaget?
3. Hur ser du på SRM?
   a. Vad är SRM för dig?
   b. Var i processen "är" SRM?
4. Vad ser du för brister i processerna/interaktioner med leverantör idag? (Med synen att se att SRM omfattar alla interaktioner mellan kunden och leverantören.)
5. Vad mäter ni?
   a. Vad borde man börja mäta? hur? hur ofta?
6. Framtidsvisioner - vad skulle du göra bättre?

Vet du någon person du tycker vi borde prata vidare med om dessa områden?

Interview questions English
1. What is your role/title and responsibilities?
   a. Where in the process are you involved? (the wheels or 7 steps?)
   b. Which interfaces do you have with suppliers? When do you talk to them? As much with everyone?
2. What are your view of SRM in the company?
3. How do you look at SRM?
   a. What is SRM for you?
   b. Where were the processes "is" SRM?
4. What do you see for deficiencies in processes/interactions with supplier (With the view that SRM encompasses all interactions between the customer and the supplier.)
5. What are you measuring?
   a. What should be measured first? how? how often?
6. Future Visions - What would you do better?

Do you know any person you think we should talk to about these areas?

Email template to interviewees
Dear XX, We are two students that write our master thesis about Supplier Relationship Management. Our supervisor suggested that we should schedule a meeting with you to talk about your working area, your responsibility and how you look at SRM and working with suppliers. Are you available to meet with us at the headquarters or have the conversation over webjoin us any time soon? Some suggestions of times: XXXX

The meeting/interview aims at talking with you about your interactions with the supplier. How the process of working with suppliers look like (both in general but also in your perspective). What problems occur in your part of the process. How interaction points or processes could be improved. As well as your opinion and viewpoint of SRM and how it should or shouldn't be implemented in the company. .
Best Regards, Elina & Chingying

Appendix B - Literature Review

Table B-1, Overview literature review on SRM Frameworks.

SRM sub-segment	SRM sub-process	Reference
Hollistic Strategy		
	Review corporate, marketing, manufacturing and sourcing strategies	(Lambert & Schwieterman, 2012)
	Strategy - strategy for sourcing informed by wider organizational strategy	(O'Brien, 2018)
	Requirements - the overall value we need and want to secure from the supply base	(O'Brien, 2018)
	Governance - arrangements to implement and manage the SRM approach	(O'Brien, 2018)
Strategic Sourcing	Segmentation - how we determine which suppliers are important and what makes them important	(O'Brien, 2018)
	Identify criteria for segmenting suppliers	(Lambert & Schwieterman, 2012)
	Provide guidelines for the degree of differentiation in the product and service agreement	(Lambert & Schwieterman, 2012)
	Differentiate suppliers	(Lambert & Schwieterman, 2012)
	Internally review the supplier/supplier segment	(Lambert & Schwieterman, 2012)
	Develop sourcing strategy	(Hughes, 2010)
	Supplier evaluation and selection	(Hughes, 2010)
	Negotiation and contracting	(Hughes, 2010)
	Classification of items based on the portfolio model.	(Park et al., 2010)
	Supplier selection	(Park et al., 2010)
	Evaluation of the strategic importance.	(Park et al., 2010)
	Supplier selection	(Wen et al., 2011)
Relationship Management		
	Priorization - how we determine the type and nature of intervention for important suppliers	(O'Brien, 2018)
	Importance - who are we going to spend time on and why	(O'Brien, 2018)
	Develop framework of metrics	(Lambert & Schwieterman, 2012)
	Develop guidelines for sharing process improvement benefits with suppliers	(Lambert & Schwieterman, 2012)
	Prepare the supplier/segment management team	(Lambert & Schwieterman, 2012)
	Supplier portfolio governance	(Hughes, 2010)
	Joint business planning	(Hughes, 2010)
	Coordination of day-to-day operations	(Hughes, 2010)
	Analysis of the supplier relationship.	(Park et al., 2010)
	Development of action plans	(Park et al., 2010)
	Collaboration	(Park et al., 2010)
	Evaluation of the relationship attractiveness.	(Park et al., 2010)
	Supplier category and classification, ranks and managing relations	(Wen et al., 2011)
Performance Measurement		
	Implement the product and service agreement	(Lambert & Schwieterman, 2012)
	Measure performance and generate supplier cost/profitability reports	(Lambert & Schwieterman, 2012)
	Performance and value measurement	(Hughes, 2010)
	Establishment of the strategic material evaluation	(Park et al., 2010)
	Supplier quality management	(Wen et al., 2011)
	Supplier performance management	(Wen et al., 2011)
Supplier Development		
	Intervention - specific different types of SRM interventions deployed with suppliers [...] according to their importance and factors that make them important.	(O'Brien, 2018)
	Identify opportunities with the supplier/supplier segment	(Lambert & Schwieterman, 2012)
	Develop the product and service agreement and communication plan	(Lambert & Schwieterman, 2012)
	Supplier development	(Hughes, 2010)
	Issue escalation and resolution	(Hughes, 2010)
	Supplier assessment and development	(Park et al., 2010)
	Supplier development management	(Wen et al., 2011)