Important Factors for a High Degree of Supply Chain Maturity

A Study at a Swedish Retailer Firm in the Food Industry

Abstract: The food industry is facing a high degree of competition from both international and private-label competitors, which has increased the importance of generating cost savings. Previous research show there is a significant relationship between the purchasing unit's maturity level and cost reductions. Maturity is defined as the level of professionalism in the purchasing unit. The purpose of this thesis is to study if supplier flexibility, supplier selection and cost savings contribute to a high degree of maturity for a company in the food industry. Previous research has focused on measuring maturity from an industry perspective. This thesis will study the three factors stated above within a micro perspective setting. A qualitative interpretive study is applied by interviewing the entire purchasing unit. The findings show that flexibility in the supply chain, supplier selection and cost savings affect the level of maturity in the purchasing unit. By being flexible the case company can react faster to changing demands and choosing right suppliers to work with affect the strategies chosen by the case company. Measuring cost savings accurately results in the case company building future strategies based on concrete facts. These three factors together with working more centralized and cross-functionally affect the level of maturity in the purchasing unit. The findings offer insight to the importance of ensuring a consistent level of maturity within an entire case company in order to enable the purchasers to generate cost savings.

Key words: supply chain maturity, supply chain flexibility, supplier selection, cost savings

Master Thesis, Spring 2014 MSc in Business and Economics Stockholm School of Economics Authors: Sara Ersoy (21886) & Jeanette Engzell (21779) Tutor: Frida Pemer

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1. Introduction

In this chapter we firstly explain why supply chain maturity is interesting, relevant and why it should be studied in the context of the Food Industry. Secondly, we state the limitations with the existing research on the topic of supply chain maturity. Thirdly, we explain the purpose behind this study and disclose our research question. Lastly, we give a short introduction to the case company studied in this thesis and a thesis roadmap.

1.1 Background

The industry life cycle of most European industries are in the stage of saturation or decline due to high competition from many Asian countries the last decades. The purchasing units' influence in the company's financial result has risen since the competitive structure in Western Europe industries requires companies to focus on their core activities. This has resulted in management becoming increasingly aware of the purchasing unit and its potential for cost savings (van Weele, 2005, p. 140). Purchasing value in relation to cost of goods sold is approximately 68% (Kluge, 1996) and a purchasing saving is highly effective on the company's return on net assets (RONA) (van Weele, 2005, p. 16).

The food industry is in the saturation stage in the industry life cycle and is currently experiencing high international competition (van Weele, 2005, p. 140). Companies in the food industry also face high competition from private labels which intensifies their need to position their products well in comparison to their competitors (van der Valk, 2005). Most products in the food industry are sold through retailers to customers and margins in the industry are relatively low (Hingley et al., 2004; Traill et al., 1997). Retailers have strong bargaining power when negotiating with food companies since they are in control of shelf spaces (Hingley et al., 2003). Retailers distributes shelf space based on the consumer buying pattern and retailers virtually force food companies to either innovate or loose shelf space to competitors that meet customer demand (Rudolph, 1995). In comparison to the automotive and electronic industry where there is a high pace of innovation in conjunction with suppliers, the food industry needs to cope with issues such as capacity, functionality and quality. There is also the issue of combinations of ingredients that either mix or do not mix well together that makes innovation increasingly complex (Anderson et al., 2002). The high degree of competition from both international and private-label competitors as well as the complexity of actors in the industry makes the food industry an interesting area of research within purchasing.

In order to stay competitive, the supply chain maturity in the purchasing division is highly important (van Weele, 2005, p. 92). Supply chain maturity is defined as "the level of professionalism in the purchasing unit" (Rozemeijer et al., 2003). Most research on supply chain maturity is focused on how to measure maturity in an industry, such as the automotive industry, electronics industry, retail industry etc. (van Weele, 2005, p.93-96; Anderson et al., 2002). Few studies have taken a micro perspective and investigated what generates a high degree of supply chain maturity within a company. Companies in the food industry are increasingly relying on staying competitive and need to impose professional strategic structures in their purchasing units to manage the competition. By increasing the supply chain maturity one also increase the competitiveness of a company. Hence, it is interesting to investigate what factors are important to consider within a company in order to increase the supply chain maturity. Previous research has identified three factors that are important for increasing the supply chain maturity (Vickery et al., 1999; Cagliano et al., 2004; Van Weele, 2005; Shiele, 2007). First, the supply chain flexibility reflects how well the firm can react without little penalty in time, effort, cost or performance. The better the firm can react to changes, the higher the supply chain maturity (Vickery et al., 1999). Second, the supplier selection process, including aspects such as supplier potential development and willingness to share information, reflects a higher degree of supply chain maturity (Cagliano et al., 2004; Van Weele, 2005). Thirdly, there is a significant relationship between a firm's maturity level and cost reductions (Schiele, 2007). These three factors have not yet been investigated within the food industry and this study will investigate if they are relevant for a company in this industry. The result of such a study will develop the knowledge within the field of supply chain maturity.

This thesis will be conducted by a case study of an anonymous Swedish food company that is part of a Group with diverse business areas. The Group has a young headquarters and was previously highly decentralized and is currently trying to tighten up the organization and increase centralization. This food company is interesting to investigate since they are facing a high degree of competition and is at the same time trying to reorganize the organization to better cope with competition. By increasing maturity, companies can become more competitive since maturity is positively correlated with cost reductions (Shiele, 2007).

1.2 Purpose and Research Question

The purpose of this thesis is to address the gap in the literature of supplier maturity in a retail setting in the food industry. This thesis is conducted as a case study of an anonymous Swedish food retailer.

As mentioned above, previous research has mainly looked at supply chain maturity from an industry perspective and not a firm perspective. The three factors mentioned above (supply chain flexibility, supplier selection and cost savings) as important factors for a high degree of supply chain maturity, will be studied in the micro perspective setting in the food industry. Previous research has looked into the importance of supply chain maturity for being competitive and how to measure the maturity accurately (van Weele, 2005, p. 140), but little previous research has been done in a retail setting and with these specific factors. Therefore, the thesis contributes to the gap in the research within supply chain maturity in relation to the three factors stated above within a micro perspective setting. To fulfill this purpose, the following research question will be studied:

"How do supply chain flexibility, supplier selection and cost savings contribute to high level of supply chain maturity for a firm's purchasing unit in the food industry"

1.3 The Firm Studied

A Swedish food retailer is the case studied in this thesis which is part of a larger Group. The Group is one of the largest firms in the industries agriculture, machinery, energy and food. It is owned by more than 33,500 Swedish farmers and has approximately 8,600 employees in 22 countries. The Group aims to create a cohesive business that best utilizes the strengths of the entire value chain and takes advantage of synergies and economies of scale (Webpage, 2014).

The Group's operations are organized into four divisions, see the figure below.



Figure 1. Organizational Structure

The firm studied operates in the food industry and is referred to the case company in this thesis. The division collects most of the brands in the flour, breakfast, blender, pasta and ready meal segment. Customers include grocery stores, restaurants, catering, bakeries, and more. Famous brands are market leaders in several of their product segments (Webpage, 2014).

1.4 Thesis Roadmap

This thesis is built on the theoretical framework of supply chain maturity. After the theoretical framework, the methodology of the thesis will be explained. The empirical background of the case company will follow as a basis for the analysis of the three factors that contribute to a high supply chain maturity. Additionally, a discussion of the main findings in relation to previous research will follow and will be summed up in a conclusion.

2. Literature Review

This section exposes several theoretical gaps regarding research on supplier flexibility, supplier selection, cost savings and supply chain maturity. Furthermore, it explains important models and concepts needed to understand for the results of the thesis.

The literature review provides an overview of the theoretical framework for how the thesis is developed. The thesis aims to understand if supply chain flexibility, supplier selection and cost savings contribute to a high degree of supply chain maturity in the food industry. The

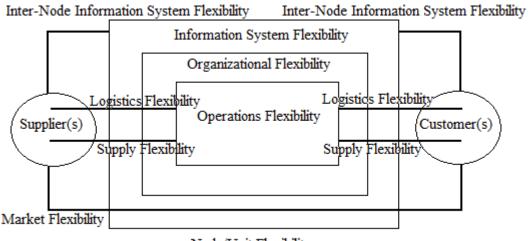
first section starts with reviewing the importance of flexibility in the supply chain in order to stay agile and competitive. In the following section, the criterion for supplier selection is presented to understand how the case company prioritizes when selecting suppliers. In the third section, the ability to measure cost savings is presented in order to understand the importance of measuring savings accurately and if savings are realized. This is then problematized through the supply chain's degree of maturity, which helps to understand how mature the supply chain is at the case company.

2.1 Flexibility in the Supply Chain

A common definition of flexibility in the supply chain is the ability to change or react with little penalty in time, effort, cost or performance (Upton, 1994; Vickery et al., 1999). This demonstrates the importance of reacting fast to changes in the market without losing time and increasing the costs. Furthermore, the definition also reflects the importance of the firm to be able to react efficient from the following views; operational, financial and organizational, in order to meet the new requirements in the marketplace (Vickery et al., 1999).

The flexibility in the supply chain operations can be evaluated from the firm's ability to support and build-to-order initiatives (Coronado et al., 2007). The firm's ability to deliver, flexibility and quality are also important to consider (Cagliano et al., 2004). Coronado and Lyons (2007) present the following perspectives to take into consideration when analyzing the supply chain flexibility:

Operations system flexibility is the company's ability to configure operations to react to emerging customer trends. *Market flexibility* is the company's ability to mass customize, build close relationships by designing and modifying products. *Logistics flexibility* is the company's ability to receive and deliver products cost effectively. *Supply flexibility* is the company's ability to adapt the supply chain according to the supply of product and customer demand. *Organizational flexibility* is the company's ability to match labor force skills to the customer needs and market requirements. *Information systems flexibility* is the company's ability to build information systems appropriately as it responds to changing customer demand.



Node/Unit Flexibility

Figure 2. Components of Supply Chain Flexibility

By having a flexible supply chain, the company will gain a strategic advantage (Vickery et al., 1999). Five supply chain flexibilities that are related to the market flexibility are defined by Vickery. *Product flexibility* is defined as the firm's ability to provide a customized product for specific customer demand. *Volume flexibility* is when the firm can adjust capacity in order to meet changes in customer quantities. *New product flexibility* is how well the firm can launch new or modified products. *Distribution flexibility* is defined as the firm's ability to provide wide access to products. *Responsiveness flexibility* is how the firm can respond to target market requirements (Vickery et al., 1999).

In the food process industry, customer orders can be predicted with high certainty to a larger extent (Van Wezel et al., 2006, p. 290). Supply chain responsiveness, flexibility, in the food process industry is limited due to organizational procedures, extensive planning processes and production processes. This indicates that the flexibility is on the lower end of the scale. In the food process industry the primary competitive priority in the supply chain is to increase efficiency leading to lower costs and inventories. In line with Kraus et al. (2007) argument about social control and trust, this industry does not generally involve trust building activities and matching organizational cultures among the actors. The food processing industry has great potential to increase the efficiency in the supply chain (Wagner et al., 2012). Many managers at companies know that the supply chain is not flexible enough and riddled with waste but they do not know how to solve the problem (Fisher, 1997).

2.1.1 Supply Chain Fit

Companies are assumed to perform better with internal consistency among structural, strategic and contextual variables (Burton et al., 2002). According to Wagner et al. (2012) supply chain fit is defined as "the perfect strategic consistency between a product's supply and demand characteristics (such as demand predictability, life-cycle length, product variety, service, lead-times, and specific market requirements) and supply chain design characteristics (such as inventory strategy, product design strategy, and supplier selection aspects)".

In order to achieve supply chain fit companies need to consider three steps (Chopra et al., 2010; Lee, 2002): firstly, companies need to understand the demand and supply uncertainty of products and customers' needs. Secondly, companies need to understand the capabilities of their supply chain, in other words, degree along efficiency-responsiveness range. Thirdly, companies need to ensure that the degree of responsiveness and flexibility in the supply chain is consistent with the products' supply and demand uncertainty. The aim is to target high efficiency for a supply chain with low uncertainty and high responsiveness for a supply chain with high uncertainty (Chopra et al., 2010). Companies that take into account the supply chain during strategic debate and manage it as a single entity will benefit from an increased market share on a lower asset base (Stevens, 1989). Wagner et al.'s (2012) findings indicate that the higher the supply chain fit and flexibility is, the higher the return on assets (ROA). Companies with a negative misfit/not flexible have a lower performance than companies with positive misfit.

2.2 Supplier Selection

2. 2.1 Supplier Selection Process

The supplier selection process is the process in which the buyer specifies, selects and contracts with the suppliers. According to Van Weele (2005, p.52), the steps in the selection process of suppliers are the following:

Determining the purchase order specifications: In this first step the specification is made. Here the need is identified and the company is faced with the question "make-or-buy". It should be decided if the products should be bought or performed by the company itself. It should also be verified if this is a cost saving opportunity or not. There are two aspects of the specification. The first aspect is the functional perspective of the product and concerns the product functionality aspect for the customer in the specifications. Examples of functional specifications can for example be the needed expertise for the product usage. The second aspect is the technical perspective. It concerns the product's technical characteristics as well as the activities involved that are performed by the supplier. Examples of technical specifications are the logistics specifications and the legal and environmental requirements (Van Weele, 2005, p. 28).

Selection of suppliers: After the specifications are done, the buyer starts the selection process. This process involves a few separate steps (Van Weele, 2005, p.29). In the first stage the method of the subcontracting should be decided. After then, the primary qualification of suppliers is done. Depending on the information request and risks, suppliers respond by providing "bids" for the contract, specifying an offer on the contract terms, such as price, quality, etc. The suppliers which have achieved the minimum rate (for example to have certificates, production capacity, delivery capacity etc.) will be accepted for further negotiation (Vijayvagy, 2012). Third, there is a preparation of the request for quotation and analysis of the bids that are received. Forth, the supplier is selected (Van Weele, 2005, p. 52).

Collaboration and potential performance, including aspects such as supplier potential development, willingness to share information, physical proximity and legal and contractual terms are evaluated. All these dimensions relate to the potential performance of the supplier and the ease of collaboration with him (Cagliano et al., 2004). It is an ongoing relationship management process of the suppliers. For supplier selection criteria, see below in section selection 2.2.2 Supplier selection criteria and table 1 about performance indicators.

Contract: After the supplier has been selected, the contract is done (Van Weele, 2005, p. 54). Depending on the industry characteristics, the contract can include specific terms and conditions, for example legal terms and product characteristics. Therefore, the contracts have to be adapted to the conditions and not used standardized. The following aspects are examples of important factors to cover in the agreement; the prices and the terms of delivery, terms of payment, penalty clauses and warranty conditions and other arrangements such as insurance, safety and transfer regulations.

Ordering: After the terms and conditions of the contract have been agreed upon, the order can be placed. Purchase orders are placed against the agreement. In these cases, the contracting and ordering are separate activities. A purchase order or request is often done electronically (Van Weele, 2005, p. 57).

Follow up and evaluation; In this last step, the buyers have to evaluate and follow up the supplier. Examples of aspects to take care of in this stage are; warranty claims and penalty clauses, settling the result of the work stated in the specification, organize the purchase and the supplier documentation and recording project evaluations (Van Weele, 2005, p. 62).

2. 2.2 Supplier Selection Criteria

According to Xia et al, (2007), suppliers can be ranked, evaluated and selected from three criteria that have sub-criteria described in the hierarchy: *price*, *quality* (technical level, defects and reliability) and *service* (on-time delivery, supply capacity, repair turnaround time, warranty period). From this supplier selection hierarchy, the alternative of the suppliers are selected.

According to Vijayvagy, L. (2012) and Van Weele (2005, p.44), there are more criteria's to take into consideration in the supplier selection. Vijayvagy calls the criteria performance indicators and are listed in the table below:

1. QUALITY Specialization, Design Quality	
2. COST Price, Cost Reduction Plan, Minimum Order Quantity	
3. DELIVERY Lead Time, Variability of lead time	
4. FLEXIBILITY Design Change Flexibility, Mix flexibility, Capacity Flexibility	
5. REPUTATION Image, Compatibility	
6. RELIABILITY Durability, Problem Solving	
7. POST SALES SERVICES Relation with Supplier, Regular Updates, Quality, Rate of Innovation	

Table 1. Performance Indicators for Supplier Selection

In the selection process, the criteria price and quality are often being stressed as the main criteria. However, the author Lee (2009) argues the benefits, opportunities, costs and risks of the suppliers are seldom faced by the buyers. Examples of benefits and opportunities are for example more adapted and customized products and improved working processes. Costs and risks can be price increases in commodities or environmental risks. Furthermore, he argues

that the selection process can be rather difficult when these factors are included concerning the fuzzy business environment.

The selection process and the criteria of potential suppliers are becoming a more important and critical aspect today, since the global competition increases and the business environment is rapidly changing (Vokurka et al., 1996; Stavrulaki et al., 2010; Paulraj et al., 2006; Porter et al., 2006; Cebi et al., 2003). According to Vokurka (1996), this situation leads to many firms reducing their number of suppliers and their base of suppliers. The suppliers can be seen as more important from a strategic and competitive advantage perspective (Nollet et al., 2005; Cebi et al., 2003).

Furthermore, the alignment of the strategy with the suppliers has made it more important to integrate the products and processes with the strategic decisions (Stavrulaki et al., 2010; Spekman, 1988; Axelsson et. al 1993; Porter et al., 2006). According to Axelsson (2014), strategic purchasing covers three major areas. These are the aspect of the time frame, the demand from the buyer to the supplier of the products (if they are standardized or customized) and the supply management of the purchase work in the organization. Since the business environment is rapidly changing, the need of alignment of these aspects has become more important over time. In Stavrulakis et al.'s (2010) article, the authors stress the importance of the alignment of the product and the supply chain processes. When the suppliers are integrated with the firm concerning their production processes, information etc. and can work cross-organizational, the purchasing becomes more strategic and have an impact on the supply chain performance for both the buyer and the supplier (Paulraj et al., 2006). When the product, production and logistics characteristics are changing, the strategy should be aligned with the changes.

2.2.2.1 Environmental Criteria

A fourth criterion, namely the suppliers' ability to meet environmental aspects, is considered as important in the selection process (Jabbour et al., 2009). Today companies still use the traditional selection criteria as the price, quality and service, but have the environmental issue to take into consideration as well in order to stay competitive. To choose the right suppliers in a long term perspective creates competitive advantage for the firm which has a positive impact on the organization's performance (Spekman, 1988).

When selecting suppliers, companies take the environmental and social aspects into consideration as a criteria in order to be legitimate and to stay competitive (Porter et al., 2006; Lee, 2010). According to Lee (2010) it is crucial to integrate sustainability in the firm operations. Sustainability and environmental aspects can for example be requirements of a certification of ISO standards and goals of inventory and reducing waste in the production. Additionally, by choosing environmentally friendly suppliers, the company is stimulating improvements in their suppliers' environmental performance and contributes to better environmental impact. The suppliers can support customer quality improvement processes, contribute to product development and in production (Jabbour et al., 2009). However, according to the literature, companies are in different stages when it comes to taking the environmental aspect into consideration in the supplier selection process (Hunt et al., 1990; Venselaar, 199). Some firms think this is an important selection criterion and some do not. In conclusion, companies today still use the traditional selection criteria such as price and quality as the main aspects (Xia et al., 2007; Hopkins, 2010).

The existing literature lacks extensive research that considers both supplier selection criteria and integration mechanisms to identify alternative supply strategies (Cagliano et al., 2004). In the global and competitive era today, the selection process is often complicated and affected by many factors that are unpredictable and affect the decision of the selection process of the supplier (Braglia et al., 2000).

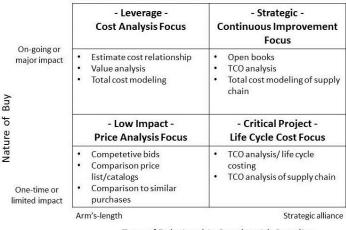
2.3 Cost savings

2.3.1 Purchasing Cost Management Tools

Managers buy several types of products with different importance to the company. In order for managers to determine which cost analysis technique to apply to a particular purchase, Ellram (1996) has created a methodology that can be used to classify suppliers (see figure 3) which has been developed from Kraljic's model (1983).

Depending on the purchases costs and impact on the organization, purchases have been classified as low impact, leverage, strategic or critical projects. This matrix show the importance of taking into consideration the nature of the buy and the type of relationship the company has with the supplier in order to conduct a cost analysis.

Cost Analysis Techniques



Type of Relationship Sought with Supplier

Figure 3. Cost Analysis Techniques

The cost analysis techniques used should depend on the importance of the purchased item and the relationship the company desires to have with the supplier. Low impact purchases only need simple impact cost analysis techniques which primarily focus on price. Leverage purchases are important to the organization and the cost analysis techniques focus on ensuring that the company is paying a fair price. Strategic purchases are highly important on continuous bases and for ensuring long-term relationships with suppliers and hence need more in-depth cost analysis techniques. Critical projects are one-time projects and depending on the nature of the project different cost analysis techniques previously discussed can be used.

2.3.2 Supply Savings Gap

Cost savings in supply chain can be difficult to measure accurately (Johnson et al., 2010). Learning how to approach the measurement challenges can improve profitability and make companies more competitive (Johnson et al., 2010). The authors identified six factors that hinder companies from accurately measure supply savings; systems fail to account for savings, changes in markets, technologies and volume, unwillingness to recognize cumulative savings, incomplete definition of supply savings, inability to convert savings into profits and reluctance to revisit the past.

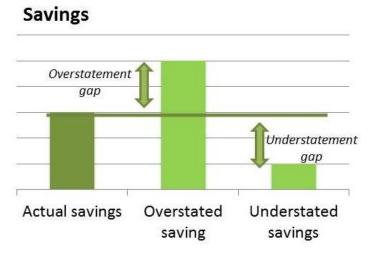


Figure 4. Supply Savings Gap

It is difficult to get an accurate picture of the savings potential in a company due to the reporting challenges. According to the authors it seems as underestimating supply savings is more common than overestimating. At almost all companies in the study, purchase managers only report savings that are easily demonstrated such as year-over-year price reductions, referred to as "hard savings". This implies that companies tend to overlook other savings such as limiting price increases, which lead to lower reported savings and hence understates the supply functions actual contribution. The consequence of understate supply savings is that it lowers the status of supply in the company which makes it more difficult to retain talent in the supply function and strengthens the search for low-yielding initiatives. Understatement might also affect supplier relations since contributions by exceptional suppliers might not be fully recognized by the company, which lowers the status of the company as a customer to the supplier. Understating supply savings moves focus from pursuing strategic initiatives to lower costs for managing the supply function. Managers should focus on developing bigger opportunities to lower other costs and increase profitability instead of concentrating on lower administrative costs of supply since these usually only constitute 1 % of sales.

There is also the problem with overstating supply savings. This can for instance occur when reporting savings without taking into consideration increased cost of ownership. The consequence of overstating supply savings can lead to companies rewarding category managers on wrong foundations. Savings that are reported without any supply initiative such as market fluctuations, volume changes or technology are misleading. These should definitely be reported by the company but not as supply savings. It is also common to report savings in companies but ignore reporting price increases. This can give the impression that the

company's total spending has decreased when it might instead have increased. Overstating savings can generate consequences that are undesirable from a strategic and supplier relations perspective. This is true since wrong suppliers can be defined extraordinary and the real extraordinary suppliers might be overlooked. The validity of supply savings can be questioned when it is overstated and can in turn lead to savings initiatives being questioned and category managers becoming discouraged by lack of recognition for their work. In response to the damage overstating can cause, the response is unfortunately to understate supply savings by only reporting clear cut savings, but this only intensifies the problem.

2.4 Supply Chain Maturity

Maturity is defined as *"the level of professionalism in the purchasing unit"* (Rozemeijer et al., 2003). Comparing the level of development in a purchasing organization (maturity) and its effect on performance of a company has recently been investigated (Schiele, 2007). The study was conducted by auditing 14 companies in one industry by assessing their maturity level. Furthermore, they compared the maturity results with the performance of a company by investigating the success of cost-reduction program. The results show that there is a significant relationship between a firm's maturity level and cost-reductions. Taking into account the level of maturity in a company is important. If maturity level is too low, introducing innovative cost reduction programs based on best practice may fail since the company is not mature enough to successfully accomplish these cost reductions. In an effective purchasing unit, strategic purchasing (Carr et al., 1997).

2.4.1 Degree of Sourcing Maturity

Figure 5 shows a framework of six levels of sourcing maturity in organizations (van Weele, 2005, p. 93-96). The first level of maturity is the *transaction orientation* where the category managers merely secure the availability of material for the company's primarily purpose. The second phase, *commercial orientation*, focuses on reducing cost by regularly requesting tenders and negotiating and comparing different offers from suppliers. *Purchasing coordination* is the third phase where the buying company has more control of the number of suppliers and the purchased volume and items. This allows for more organized and powerful actions which enables creating savings through synergies. For the first three phases the purchasing department has a functional approach and acts primarily on its own. Phases two and three are become more relied on coordination and centralization of purchasing units.

Phase four, *internal integration*, emphasizes the use of cross-functional teams with the objective to reduce total cost of ownership and not only unit cost of purchased items. In this stage it is important with well-functioning information and communication systems that enable process orientation. The fifth phase, *external integration*, is characterized by an outsourcing strategy together with working closer with suppliers on product development. Information systems are now not only integrated internally but also with partner suppliers. Phase six, *value chain orientation*, is characterized by not only the previous five phases but also on delivering value to the end customer. In this phase the goal is to create an efficient and effective value chain that serves the customer in the best way. Common to phase four to six is that central led organization and cross-functional teams are important.

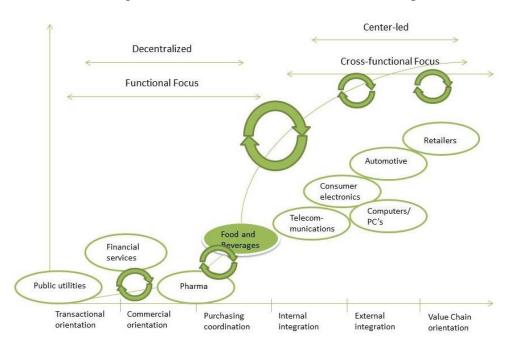


Figure 5. Sourcing Maturity

2.4.2 Centralized versus Decentralized Purchasing

Most companies have tried both a centralized and a decentralized purchasing structure (Axelsson et al., 1991). There are several factors that can be used in order to decide how to structure the purchasing unit. A centralized purchasing unit is a good approach the greater the *communality of the purchased products*. If business units are situated in *different countries*, coordinating purchasing can be difficult. When operating in a market whit *large suppliers* it is an advantage to coordinate purchases. Prices of certain raw materials are *sensitive to volume*; therefore coordinating purchasing can lead cost savings. Products that are sensitive to political and economic climate can face high *price fluctuations*, and then it is more favorable to have a

centralized purchasing unit. Certain *customers* can have great power of what products they demand from their manufacturer and this is agreed with the business unit manufacturing the product. In this case a centralized purchasing unit will be difficult to maintain (van Weele, 2005, p. 239 - 240).

Recent research suggests that the way a company should structure its purchase is dependent on the purchasing maturity and corporate cohesion (Rozemeijer et al., 2003). Corporate coherence is related to what extent different units in a company is operated and managed as one entity. Purchasing maturity is connected to the level of professionalism in the purchasing unit and their relative status, quality of the employees working with purchasing, relationship with suppliers and the use of purchasing information systems. When corporate cohesion and purchasing maturity is low, a decentralized purchasing unit has the best chance of succeeding. If corporate coherence is high and purchasing maturity is low a centralized purchasing unit is preferred. When both constructs are high a center-led structure is more likely to succeed. This is a structure were cross-functional teams coordinate activities with support from business units and is still highly managed by corporate category managers. Federal purchasing consists of autonomous decentralized purchasing units receiving support from a small corporate purchasing staff. If both corporate coherence and purchasing maturity have medium values, a hybrid purchasing unit with both centralized purchasing and a voluntary purchasing coordination activity is preferred. According to the authors top management add value by creating a fit between the strategy to generate corporate advantage in purchasing, and the degree of purchasing maturity and corporate cohesion (Rozemeijer et al., 2003).

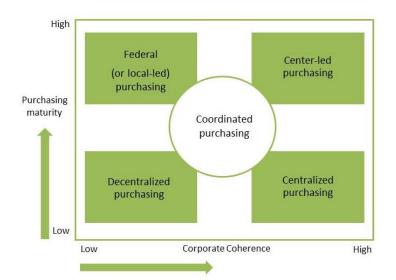


Figure 6. Purchasing Structure

2.4.3 Ten Principles of Effective Sourcing and Supplier Management

Spekman et al. (1999) has looked into what factors lead to effective supply chain management. The authors found 10 principles that lead to effective supply chain management that are based on best practices.

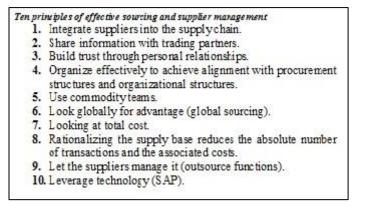


Table 2. Ten Principles of Effective Supply Management

Many companies claim that they have developed some form of *partnership* with their suppliers or customers. Research has shown that partnering attempts have resulted in mixed success in different industries (Ellram, 1990; Spekman et al., 1999). Many companies fear to become too reliant on their suppliers and are afraid that the partners will take advantage of the dependency the company has on them (Newman, 1989).

Sharing information for inventory is a potential competitive advantage. This implies that the company and the partner have *trust* for each other. Companies therefore need to grasp what information to share and to what extent partners will be involved in decision making. Trust is built through personal relationships.

Companies need to *structure effectively* in order to achieve alignment between procurement and organizational structures. The weak link in many supply chains is usually attributed to misalignment of goals, perceptions and objectives within companies (Spekman et al., 1999). By using *commodity teams* one focuses expertise, reduces competition between functions, uses scarce resources more effectively and creates greater knowledge to sourcing decisions.

Global sourcing examines the best product to supply global operations. This is determined on the basis of purchase price, technology, flexibility in response, lead time delivery and

economical and political stability. Looking at *total cost* of acquisition instead of only purchase price is important. Other cost such as quality, transportation, inventory carry and administrative cost are also important to include when looking at the total cost.

Simplifying the procurement process and using methods that reduce waste of the supply chain is important when *rationalizing processes*. This is done by examining each relationship in the supply chain and estimating how each relationship contributes to increase value for end customers. Supply base management is part of having close relationships with suppliers and *transfers certain activities* to them *such* as innovation.

Leveraging technology increases integrated information that enables an increased transparency to different activities in the organization.

2.5. Theoretical Summary

Figure 7 summarizes the literature review and how the three different factors (supplier flexibility, supplier selection and cost savings) are connected to supply chain maturity. Our study will investigate if these three factors are important for a company in the food industry. By doing this, we aim to bring more clarity to what factors are important for having a high degree of supply chain maturity. By studying the supply chain maturity within a firm, we will contribute to the limited micro perspective research of supply chain maturity.



Figure 7. Theoretical Roadmap

3. Methodology

This section describes the methodological decisions that have been made and will give an account of the methodological fit, the firm selected, the data collection, reflexivity, limitations and discusses the reliability and validity of the study.

3.1 Methodological Fit

This thesis is an interpretive qualitative study (Morgan, 1980). Furthermore, it is abductive and has an explorative research question (Alvesson et al., 2008). Since this is a qualitative study, the chosen methodology attempts to fit the logic for the study as best as possible and to minimize subjectivity from other factors, in order to ensure high reliability and validity.

The study has the employees' perspectives of the maturity level in the case company. The employees' behavior and actions can be complex and difficult to understand which can be difficult to translate to quantitative terms, which make the quantitative methodology not suitable (Holme et al., 1997). Therefore a qualitative method was chosen in order to fit the complexity of the studied objective (Alvesson et al., 2008). The three different factors; supplier flexibility, supplier selection and cost savings, would not have been studied if a quantitative approach would have been chosen. The lack of extensive research in the particular field identifies the need of more research in the area. Facing the width of these gaps in the research, we were led to formulate an open-ended and explorative research question.

The decision to focus on an explorative study resulted in gathering qualitative data by conducting in-depth interviews in an attempt to add to current theory. The gap in the research literature inquire further theorizing and we found it appropriate to conduct a study that allows explanation, interpretation, and description, i.e. a qualitative study (Pettigrew, 2012). In the theoretical review it was concluded that existing theories were not comprehensive enough to answer our research question; therefore a qualitative method seemed like a better fit.

3.2 Single Case Study

The thesis is conducted as a single case study (Yin, 1989, p.13). Case studies are only one of several ways of conducting scientific research. It is considered to be suitable in this case since the thesis investigates a contemporary phenomenon within its real-life context, the boundaries between the phenomenon and the context are not clearly evident and multiple evidence are used (Yin, 1989, p.23). A common critique of case studies is that it is difficult to generalize

from one firm to another (Yin, 1989, p. 44). However, the possibility to extensively study a single case gives a richer and deeper insight in the complex processes that occur in a micro level. For an explorative study, conducting an in-depth qualitative single case study can be highly valuable.

3.2.1 The Firm Selected

The Group was chosen because it is an organization that has several different businesses areas. It has a divisional organizational structure (see figure 1). The business areas are in different industries and the food industry is relevant to study since the industry is constantly under development and has a very strong impact on the retailing/food sector industry. Also, the Group is unique in their industry providing products that are market leaders in many product categories. The fact that the Group has different divisions affects the company. There will always be a trade-off between the individual division and the Group as a whole. The decision to study the case company will hopefully result in a deeper understanding of the single divisions' possibilities to increase maturity in the broader Group perspective.

3.3 Data Collection and Key Findings

The data consist primarily of primary data collected through in-depth interviews of either face-to-face or telephone interviews. Primary data was also collected from the homepage and internal company material. Secondary data was also included for further theoretical knowledge. Björn Axelsson, Professor at the Department of Marketing and Strategy at Stockholm School of Economics, was interviewed. This was done in order to get an expert's perspective in the area of procurement and sourcing as well as more academic insights in the field. Material of procurement from Professor Axelsson was also used in the paper.

Academic literature has been collected from several databases such as ABI Inform and Business Source Premier. These databases have been used to collect literature in the area of supply chain, strategy and logistics. The searched key words that have been used are for example; supply chain maturity, supply chain flexibility, selection criteria, cost savings. The articles complement the data collected and give a background of previous research.

3.3.1 Interview Structure

The selection of interviews was based on the employees' positions in the case company (Appendix 2). The aim was to interview employees in different positions in the case company

and in different levels in the hierarchy in order to receive different perspectives in the researched area. It has been important to interview both operative and decision making/strategic responsible employees. The interviews sought to represent the actual spread among positions in the case company since all the employees in the purchase unit were interviewed (Appendix 3). This gives the thesis the broadest picture possible of the studied phenomena.

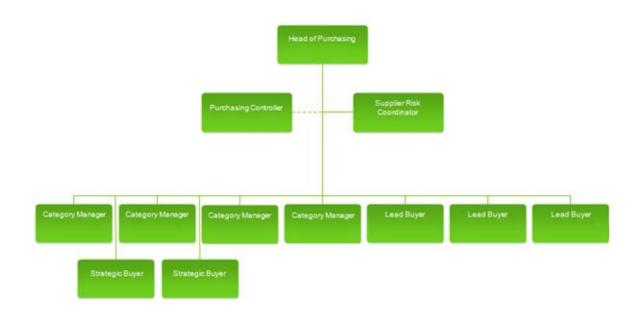


Figure 8. Organizational chart of Purchasing Unit

To clarify, when the paper refers to "purchasers" it is used as a collective name for the different positions within the purchasing unit in the case company. The purchasers consist of category managers, lead buyers, strategic buyers or purchase managers. When the text refers to "products" it can be raw materials, finished products or packaging.

There is a trade-off between conducting too many interviews and too few interviews in a qualitative study. Too many interviews can make the empirics/data difficult to analyze and too few interviews can result in difficulties to draw clear conclusions (Kvale & Brinkman, 2009). All of the employees at the case company's purchase unit were interviewed. This resulted in 19 conducted interviews. Given that the aim was to study only the purchasing unit in the organization, the number of interviews was considered to be suitable in order to fulfill the objective of the study. In this way, an empirical saturation was reached.

All interviews were conducted semi-structured and each lasting one hour. According to Kvale & Brinkman (2009), semi-structured interviews are beneficial when respondents describe their perspective on the basis of pre-determined questions. Questions were pre-determined based on the study's purpose and follow-up questions were used as support (Appendix 1). The interviews were conducted in person face-to-face and over phone. Face-to-face interviews lead to higher responsiveness and more valid response (Andersen, 1998). However, since the employees are located in three different countries; Sweden, Norway and Denmark, telephone interviews were necessary. The interviews that were conducted face-to-face were done in the case company environment at the Group's head office. The interviewees were contacted and briefed of the questions prior to the interviews, thereby increasing their ability to answer the questions during the interview. Furthermore, they were interviewed retrospectively and had the possibility to approve the data collection and come up with any additions or corrections afterwards, in order to reduce false claims and thus reduce sources of error in data collection (Denscombe, 2009).

3.3.2 Data Analysis

The analysis has alternated between the whole and the parts to provide a new understanding of the empirical material (Kvale & Brinkman, 2009). The impaired interviews were read several times so no valuable information would be lost. The analysis of qualitative data is an interactive process requiring several careful readings of the material (Holme & Solvang, 1997).

Each interview was recorded and thereafter transcribed. To write down the interview makes it possible to organize the content of the analysis (Kvale & Brinkman, 2009). Thereafter, an analysis of all the transcription was made in comparison to the accumulated interviews that had been conducted at the time. The findings were later sorted into groups and coded into labels. This enabled the authors to sort out the data collected from the interviews and to get a good overview of the findings in relation to the theoretical background. This enabled the authors to find patterns and cluster our findings from different topics. These steps resulted in the information from the interviews being processed four times. Firstly, the information was processed during the interview and secondly when transcribing the recorded interviews into writing. Thirdly, the information was processed when analyzing the transcript and trying to find patterns that were coded in a separate document. The fourth step consisted of an analysis of all interviews together and by the coded document. By thoroughly conducting these four

steps, both authors became closely familiar to the case company's purchasing unit and the collected data.

3.4 Reflexivity

The thesis authors have not been in contact with the studied case company previously, which can be seen as positive for the study since the writers do not have any previous knowledge or contact with the case company. This increases the reliability of the study. The case study will be more objective than if previous personal experiences of the case company had existed. However, the thesis authors have been employees at another division within the Group in 2012, which make the thesis writers knowledgeable about the Group, but have not been in contact with the studied case company. The writers' background knowledge of the Group might have been advantageous for the thesis since the writers were familiar with the organizational structure and processes within the Group's operations.

3.5 Limitations

All interviews were conducted in native tongue. Three interviews were conducted in another Nordic language (Norwegian and Danish) and this might have limited the study. When other languages are used, there can be limited possibilities to go deeper into certain questions.

In two of the collected interviews the problem of confidentiality was faced. This had to do with the employees' position as board members and union representatives. These employees are employed in the purchasing unit and are included in the 19 interviews conducted. In these interviews, some important data might have been left out due to case company secret documents such as financial data and ratios. This might have had consequences when analyzing how the case company does their measurements of their cost savings.

3.6 Reliability and Validity

3.5.1 Reliability

The study and the choice of studying the specific case company may make it difficult to implement the study with the same results again. This is because the case company is unique and change over time, thus changing the economical situation and the situation where the suppliers are in (Denscombe, 2009). Also, employees and organizational behavior change over time both in terms of own development, changed positions, new recruitments and by the fact that they know they have been studied. However, it is likely that the study could be

repeated with similar results in a similar firm in the food industry. This is due to the fact that the food process companies in general have common methods for example extensive planning processes and production processes (Van Wezel et al., 2006, p.290). Supply chain management issues will be relevant for the future since the industry has a high potential for future development in the area of increasing the supply chain efficiency and maturity (Wagner et al., 2012). This case study is considered to provide credible and valuable results to the identified gap in the literature (see section 2).

There is a risk that the interviewees answer the question in line with what they believe is important for the thesis writers' study area. One possible scenario is that the employees indirectly want to reinforce their maturity level since the essay writers study business at Stockholm School of Economics. There is a risk that the education identity affects respondents' choice of answers. There may be an unconscious assumption that the interviewees' believe that budget and finance lies within the authors' interest. However, since the thesis authors are aware of this risk, the authors have been open and clarified terms and definitions in order to minimize this risk. This resulted in the interviews being characterized by openness and trust.

3.5.2 Validity

Validity describes the correlation between the theoretical frameworks and empirical data in the completed interview (Andersen, 1998). The interviews were conducted in pairs in order to increase the validity. The internal validity refers to the extent of the study results internally can be generalized. To increase the validity, as many people as possible were interviewed. The internal validity is high since all of the employees in the purchasing unit were interviewed. The external validity refers to the extent to which the study's findings can be generalized beyond the case object of study (Denscombe, 2009). The external validity can be seen as somewhat lower when the study is a case study and the results are partly specific to the object of study. Despite this, the qualitative data collected included the different perspectives which enhance the study of truth value and validity. The results are somewhat generalizable and can be applicable in similar firms where supply chain topics are relevant.

4. Empirical Findings

The purpose of the empirical part is to explore and describe the purchase unit at the case company. The first part focuses on presenting the purchase unit including all the steps in the

supply chain (section 4.1). Then the second section presents the Supply Management Excellence (SME) program implemented in the Group to improve purchasing (section 4.2). Afterwards, the supply chain from the flexibility perspective is described (section 4.3). The fourth section is about the supply chain selection criteria that are being used when making purchases (section 4.4). The fifth section is about the cost savings (section 4.5), and the last section deals with the supply chain maturity (section 4.6).

The first person interviewed was the Head of Purchasing who gave her views on the division and overall objectives. These views were complemented by the secondary data provided by the Head of Purchasing. After the initial interview, all employees at the purchasing division, who work more operational, were interviewed. Finally, the Supply Chain Director and a Group Change Manager were interviewed. This complemented our interviews with a more strategic and tactical overview. The different data sources; interviews, secondary data such as documents and reports, provided different perspectives on the supply chain and the purchasing unit.

4.1 The Case Company's Purchasing Division

The aim of the purchase division is to contribute to sustainable profitability for the whole Group by working with and developing relationships to the suppliers (Procurement Strategy Presentation, 2012). The case company's purchasing division is developed to involve both a strategic and operational level. The two parts contribute effectively to the case company's profitability (Purchasing processes, May 2012). The case company's overall supply chain model is described below.

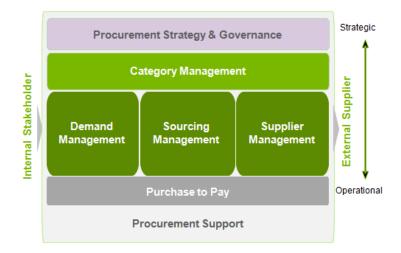


Figure 9. Shows Case Company's Purchase Division

Procurement strategy & governance is the long term strategic direction of the Procurement function and its relationship with other business departments. *Category Management* is the strategic and proactive management of the category based on a cross functional perspective (from internal stakeholders to suppliers) defining how to optimize supply for the coming 1-3 years. *Demand management* is the tactical management of internal customer's demands for purchased material. *Sourcing management* is the tactical sourcing of supply to the most optimal Total Cost of Ownership (TCO). *Supplier management* is the tactical, systematic management of supplier performance, development and integration. *Purchase-to-Pay* is the operational management of the order-to-delivery and payment process. *Procurement support* is the management and maintenance of the procurement function and data.

4.2 Supply Management Excellence

The Supply Management Excellence (SME) program is a Group initiative that aims to increase cross-functional teams and cross-functional collaboration between the different companies in the Group (Category Manager 2, 2014-03-17; Head of Purchasing, 2014-03-11). This will enable the Group to generate savings. Within SME, the change managers work with increasing efficiency in different product categories within the Group in order to generate savings. The SME program sets up strategies within the different categories and then supports the managers within the category to set up different projects that will enable them to realize the strategies (Change Manager, 2014-03-17). This allows the Group to better know how much savings can be done. Purchase should not only focus on making savings but also on working more strategically, and that is where the SME program has contributed a lot by basing it more on facts. It is important to try to standardize but it is difficult when category managers are situated in six different cities and in different countries (Supply Chain Director, 2014-02-24). The aim is to transfer knowledge from the change managers to the category managers. It is important that the managers feel ownership of the different projects that SME help develop with the case company (Change Manager, 2014-03-17).

SME is currently supporting case company's purchasing unit by improving the crossfunctional collaboration between the different functions and improving the purchasing unit in order to cut costs. This project was initiated by the Head of Purchasing in order to increase the understanding of every individual function. In order to create changes the Head of Purchasing believe it is critical to first have the basic structures in place (Change Manager, 2014-03-17). Currently in the case company there is confusion on which roles and responsibilities the different functions have (Change Manager, 2014-03-17; Category Manager 2, 2014-03-17). What SME has done initially is to conduct an internal analysis of how the purchasing and cross-functional collaboration works today. Thereafter, an external analysis is conducted of how different powers in the market affect the actions taken by the purchasing unit. Finally, the change managers conduct workshops where the category managers can come up with different improvements that can be implemented in order to increase collaboration (Change Manager, 2014-03-17).

According to the Change Manager (2014-03-11), the purchasing unit within the case company does not act as a purchasing unit per se. They secure volumes to the different sites but do not control the costs nor try to allocate savings that can be realized. In order for the purchasing unit to improve it is not necessarily within the purchasing unit that the changes need to be made, it can also be within the adjacent functions. For instance, the purchasing unit comes in too late in the different processes. *"The purchasing unit does currently work more as an administrative function rather than working professionally with reducing costs"* (Change Manager, 2014-03-17).

Strategic Buyer 1 (2014-02-18) is the category team leader that works together with SME to try to analyze the purchasing units' situation. The project will lead to a better understanding of the different functions' needs and how the collaboration can be improved. Strategic Buyer 1 will spread the knowledge from working with SME to the rest of the purchasing unit (Change Manager, 2014-03-11). In order for the SME program to have a positive effect on the purchasing unit in the case company, the management need to spend time and resources in order for changes to become realized (Category Manager 2, 2014-03-17). SME might find that there are improvements that can be made in other functions than the purchasing unit, then it is important that management priorities to improve these by spending resources on them. The purchasing unit does also need to get their function acknowledge within the case company. The other functions need to understand the importance of purchasing, which is crucial in order to become a more competitive company. In order for the SME program to be taken seriously within the case company it is important for the managers to anchor it with their employees. The Change Manager (2014-03-17) believes that "*the Head of Purchasing has accomplished it well*".

4.3 Supply Chain Flexibility

This section describes the flexibility in the supply chain at the case company from the perspectives of the interviews and the secondary data that the division provided us.

4.3.1 Flexibility

Depending on the product and the supplier, the integration with the rest of the supply chain and the suppliers differ (Head of Purchasing, 2014-01-29). According to the supply chain director, the purchase division has the mission to work in a close relationship with their suppliers in order to share important data and make joint prognosis. By doing so, the purchasing unit becomes more flexible and meets the customer demand better. Today the purchase unit does not work in a close relationship where they share information and data (Supply Chain Director, 2014-02-24).

According to the majority of the interviewed purchasers, the ability to respond to the customers and market requirements is an ongoing process. As the category manager expressed; "We are constantly working on being fast and responsive to our customer preferences, but also to set trends" (Supply Chain Director, 2014-03-13, Lead Buyer 3, 2014-02-24).

The category managers work with the system Movex (Head of Purchasing, 2014-01-29, Lead Buyer 3, 2014-02-24). In the system the contracts and prices are presented. When the case company works with a new supplier, it is put into the system (Head of Purchasing, 2014-01-29). In Movex there is a prognosis and demand of the product including the specifications, for example the volume and the quality standards, which is the base for defining and analyzing a supplier and make an agreement. Beside the system, there can also be an identified demand from an ongoing project from the internal organization (Lead Buyer 2, 2014-02-24).

Even though the system is working well and the category managers do their jobs well, some interviewed believe that the knowledge of how to use the system and the functions can be better (Category Manager 3, 2014-03-10). As one expressed: *"We can and will be faster to react when we have an even better IT system"* (Category Manager 3, 2014-03-10).

The forward integration with the food retailers, such as ICA and Coop, is low (Supply Chain Director, 2014-02-24). Data about future volumes, forecasts and prognosis are not shared

between the retailers and the case company. According to the director of the division, the flexibility and adjustments to the retailers are very costly for the case company. "Since there is no close collaboration, the adjustments take time and the flexibility is negatively affected" (Supply Chain Director, 2014-03-13). However, since the case company does not share their data either, the retailers do not have any incentive to share their data and forecasts (Supply Chain Director, 2014-02-24). According to the supply chain director, openness about data would make both parties better off (Supply Chain Director, 2014-03-13). The category managers believe that the retailers in some cases can be challenging to work with since they provide information about what new products to add to the assortment in a short period of time. Then, the case company has to be flexible and adapt fast to their changes in order to stay competitive (Category Manager 3, 2014-03-10).

The flexibility and collaboration can be increased in two ways according to the supply chain director. Firstly, by sharing more information among the supply chain network, for example regarding volumes in the short- and long run. Secondly, by doing forecasts on a continuous basis, it is easier to collaborate with the supplier and also that the innovation process can be tighter between the case company and the suppliers (Supply Chain Director, 2014-03-13). *"Then the development of a new product becomes a joint activity, rather than what it is today, a pure order"* (Lead Buyer 3, 2014-02-24). However, the supply chain director thinks that the food industry in general is not integrated and that this is a problem for the whole industry (Supply Chain Director, 2014-03-13).

The backward integration with the suppliers is sometimes relationship based and sometimes more transactional (Supply Chain Director, 2014-02-24). The division does not share data with their suppliers. As the supply director says; *"We have a challenge to decide what relationship we are going to have with each supplier"* (Supply Chain Director, 2014-02-24). The integration is close during a contract period but can be looser after the period is over (Strategic Buyer 1, 2014-02-18).

4.3.2 Long Term Relationships

The long term relationships with the suppliers are important for the case company in order to be able to act both strategic and tactical. In this way the relationships contribute effectively to the case company's profitability (Purchasing processes, 2012).

The category managers have daily contact with the most important suppliers (Category Manager 4, 2014-02-26). In the supply management process the contracts has to be followed up in order to make sure that the products are being delivered and that the quality is kept on the right level. If not, the case company can cancel the contract with the supplier (Head of Purchasing, 2014-02-07). In the supplier segmentation phase, the most important suppliers are decided. These are the suppliers that the case company wants to collaborate with. The most important suppliers have more than 10 million SEK in purchase per year. The purchasers meet these suppliers on a monthly basis while the meet middle to small suppliers twice a year or less (Strategic Buyer 1, 2014-02-18). The suppliers are being measured for example on the quality specifications and the service delivery level (Head of Purchasing, 2014-02-07).

The suppliers are contacted more frequently when they are interacted in a project or during a procurement process (Category Manager 4, 2014-02-26). A lot of the contact is done over email (Lead Buyer 3, 2014-02-24). Most relationships with the suppliers are on a three year basis (Lead Buyer 2, 2014-02-18, Strategic Buyer 1, 2014-02-18). When there are problems and challenges, for example problems to deliver on time, the interaction with the suppliers are more frequent (Category Manager 3, 2014-02-19). In products where the volatility is high and the production levels vary a lot, depending on for example seasonal factors, the integration is more important (Category Manager 3, 2014-02-19). Also, other factors such as the transport capacity and the historical delivery are important when it comes to the need to be integrated (Category Manager 3, 2014-02-19).

4.3.3 Distribution and Supplier Contact

The supplier's ability to deliver products cost effectively and on the right time is crucial for the case company's competitiveness (Lead Buyer 3, 2014-02-24). Therefore, the frequency of contact depends on the phase in the purchase process. During the development phase, the contact can be more frequent (Category Manager 2, 2014-02-13). The supply and the distribution of the products vary over time and therefore the integration with the suppliers is crucial (Lead Buyer 3, 2014-02-24). In this phase the division wants to make sure that the supplier can deliver on time and meet the quality specifications. To have a tight integration is very important in some cases when the deadline for the case company is tight. Then the supplier has to be able to react fast on changes in volume and delivery times in order to add value for the case company's business (Strategic Buyer 1, 2014-02-18).

However, to have loose integration with some suppliers can in some cases actually be advantageous (Head of Purchasing, 2014-02-07). "If you have a supplier relationship concerning a standardized product, you want to have the supplier on an arm's length distance in order to be able to easy switch to another supplier that has a better price" (Head of Purchasing, 2014-02-07). In other words, the supplier integration depends on the product characteristics itself. If it is a standardized product, like a pencil (which can be seen as a homogenous product), or raisins (which can be seen as a heterogeneous product), the advantage of integration with the supplier differs. The case company wants the best price if the product is standardized/homogeneous, but maybe not if the product is differentiated. The interviewed mentioned raisins and bananas are two examples of products when the integration and trust is more important than the supplier's price.

Furthermore, the relationship and integration with the suppliers differs when it comes to the product risk profile. Depending on the risk profile, requirements and the code of conduct, the relationship with the supplier is extra important and the integration with the supplier is a higher priority (Supply Chain Director, 2014-03-13). Trust is important when it comes to products that have to be *"produced in a proper way"* (Head of Purchasing, 2014-02-07). Also, when the suppliers are seen as tactical and strategically important, the integration is much higher (Lead Buyer 3, 2014-02-24).

On the other hand, several of the interviewed expressed the importance of the integration and joint collaboration with suppliers that sell products that are affected by the quality and that have the common business in mind. In this way, the prices can be decreased and the case company's margin increases (Head of Purchasing, 2014-03-11, Purchasing Controller, 2014-02-24). In summary, by having a flexible supply chain with tight supplier interaction, they can adjust fast to changes and in the long run gain a tactical and financial advantage (Lead Buyer 3, 2014-02-24).

4.4 Supplier Selection

This section describes the selection criteria that the case company uses and what specifications that are important to consider in the selection process. The long term perspective as well as the expression "from farm to fork"/CSR aspects are also taken into consideration in the selection process. This is described from the perspectives of the interviews and the secondary data provided by the case company.

4.4.1 Selection Criteria

The majority of the employees that were interviewed who work with supplier relationship management and the identification of the supplier criteria, mention that price is the most important selection criteria. As one interviewed expressed: "*In 8 out of 10 cases the price is the determined factor*" (Lead Buyer 3, 2014-02-24). Furthermore, the purchase is often done when it is the most advantageous period for that specific product. Pineapple was brought up as an example of this. In this case the category managers followed the prices for a long time period and decided to make the purchase when it was the lowest historically on the market (Category Manager 3, 2014-03-10). The interviewed expressed the importance of following the movements in the market in the following way; "*To follow the price changes in the market is a challenging part of the job and that is why this job is dynamic and fun*" (Category Manager 3, 2014-03-10).

However, some employees talked about the capability to deliver on time. This factor can in some cases be more important than the price since some products are more completive than others (Category Manager 3, 2014-03-10, Strategic Buyer 1, 2014-02-18, Lead Buyer 2, 2014-02-18). Furthermore, for some commodities there are only a few suppliers and therefore the ability to deliver and to have the logistics ability comes in first hand (Category Manager 3, 2014-03-10). As one employee expressed; *"The price is important, but if we cannot get the product on time, the price is not worth anything in the long run"*. From the employees the trade-off between delivery capability and price was considered differently depending on whom we asked (Lead Buyer 2, 2014-02-18, Strategic Buyer 1, 2014-02-18).

One interviewed employee mentioned the geographical location as important selection criteria. As she express it; *"for products that have a certain packaging and material, the volume is important and is the main selection criteria"*. In cases with products that need transportation with certain packaging and material, the requirement of the supplier is to be able to transport fast. Then the geographical location is important and has to be the first priority (Strategic Buyer 1, 2014-02-18, Lead Buyer 2, 2014-02-18).

Additionally, many of the employees talked about the importance of trust for the suppliers and their relationships. As one employee expressed (Lead Buyer 3, 2014-02-24): *"Is is important*

with close relationships, but the price is the most important factor since we are selling our products to buyers that consider the price as very important".

Furthermore, if the price is better than forecasted by using another supplier or increasing the volume, and a cost saving is done, the product development division has to agree. The price has to be considered in relation to the specifications and the quality standards. This process is done by the product development. In these cases, the company purchase division can make cost savings (Category Manager 4, 2014-02-26).

4.4.2 Clear Specifications

The product and commodities specifications and criteria are set in the supplier sourcing process. In this process, the quality aspect is analyzed by the product developers as well as the quality division. After the specifications have been set, the suppliers can be evaluated and the approval of suppliers can be completed before the contract is signed (Purchasing processes, May 2012).

The specifications include the regulatory aspect of the food industry as well as the code of conduct (Lead Buyer 2, 2014-02-18, Strategic Buyer 1, 2014-02-18). The product specifications are formalized as requirements in a document (Lead Buyer 3, 2014-02-24). The specifications are important to fulfill in order to be certificated (Lead Buyer 1, 2014-02-13).

In the supply performance management process (SPM), the suppliers are evaluated and controlled (Purchasing processes, May 2012). As one employee expressed, "*the standards should be met, for example the international ISO 2000*" (Lead Buyer 3, 2014-02-24).

4.4.3 Long Term Contracts

During our interviews, we observed that the majority of the suppliers have been contracted for a long time period. As one employee expressed; *"we have worked with some of the suppliers since the 90's"* (Category Manager 1, 2014-02-24). The division has a long term perspective in their contracting (Purchasing processes, May 2012).

The long term contracts enhance the joint collaboration and the product development (Lead Buyer 1, 2014-02-13). By having close and long term relationships, the suppliers can contribute in the case company's innovation process and in the long run to stay more

competitive (Lead Buyer 1, 2014-02-13). Since most of the food retailers today have their own products (private-labels), the competition increases (Lead Buyer 3, 2014-02-24). However, since the cost focus is the main priority in most cases, the innovation comes as a second priority in the supplier integration (Lead Buyer 1, 2014-02-13).

4.4.4"From Farm to Fork" and Ecology

The majority of the employees that were interviewed talked about the importance of ecology, code of conduct and corporate social responsibility. The Group as a corporate has the policy to buy as much as possible from local and Swedish producers (Home webpage, 2014). This is related to the Group's overall mission to contribute to the Swedish farmers' existence and profitability (Category Manager 1, 2014-02-24).

The case company is working on the ecology perspective in a verity of ways. "In some cases we want to build a product which is pure ecological but in some cases the ecology comes with the product itself" (Supply Chain Director, 2014-03-13). In order to build knowledge in this area, the division offers education in the topic. There are training courses in for example code of conduct and specific courses for the category managers in for example commodity risks (Head of Purchasing, 2014-02-07, Supply Chain Director, 2014-03-13).

The employees mentioned the slogan and expression "*from farm to fork*" as an important aspect of the supplier selection criteria. In practice, this means that the Group takes responsibility of the entire supply chain and makes sure that all the steps in the production are fair (Strategic Buyer 1, 2014-02-18, Lead Buyer 2, 2014-02-18, Category Manager 1, 2014-02-24).). As one employee expressed it; "*It is all about taking responsibility*" (Supply Chain Director, 2014-03-13). When the suppliers are selected there can be potential concerns about the production. However, these suppliers can still be chosen in order to strengthen the supplier on a long term basis. The collaboration can in this case have the goal to strengthen the weak areas of the supplier (Supply Chain Director, 2014-03-13).

4.5 Cost Savings

This part takes into consideration how the cost savings are measured today at the case company and what consequences the choice of measurement might have when it comes to how valid the savings are. The choice of measurement also affects if the savings are measured accurately or if they are under- or overestimated. Competition from private labels has also put more pressure on generating savings in the industry. The effect a bonus system could have on category managers' jobs to increase savings is also taken into consideration and if the organizations work with savings is short-sighted.

4.5.1 Measurement of Cost Savings

There are two key factors when identifying purchasing savings: a clear process ownership so people take responsibility and good technical and IT support in order to receive statistics (Axelsson, 2014-02-13).

At the case company, cost savings are measured by looking at previous price and compare it with the new negotiated price. If the price is lower this year, savings are measured monthly as the decreased price based on the same volume last year. One does not check if it is a general market decline in price (Head of Purchasing, 2014-02-07; Lead Buyer 3, 2014-02-24). The purchasers document savings they are certain off in an excel sheet. Movex is an IT system where the purchasers add new contracts with suppliers and the prices they have negotiated on (Head of Purchasing, 2014-02-07). In the excel sheet, where the purchasers report savings, there are two different types of savings that should be reported: cost reduction and cost avoidance (Purchasing Controller, 2014-02-24). In the savings guideline (Appendix 4) cost reduction is explained as:

- Reduced total cost due to improvement/efficiency project or activity, calculated as "after" vs. "before".
- Any cost reduction effect that can be justified validated and signed off by Sector controlling.

Cost avoidance is explained as:

- Avoided cost due to improvement/efficiency project or activity, calculated as "after" vs. "before".
- Any cost avoidance effect that can be justified, validated and signed off by Sector controlling.
- Index savings (cost avoidance compared and related to an index) is only calculated and valid for categories/material where a confirmed published index exists (published market prices, established indexes etc.).

Cost reduction is usually due to lowered price while cost avoidance is due to collaboration with for instance product development when it comes to the usage of cheaper raw materials for the finished product (Category Manager 1, 2014-02-24). As a category manager you cannot only buy a cheaper product or increase the quality of a product without getting an approval from product development since they set the raw material specification. Product development needs to approve the changed specification which could be due to a change in the product mixture which will cause a saving (Category Manager 4, 2014-02-26). Purchasers should try to verify if the cost saving is marginal strengthening or not. This is difficult to know if the product is not traded in an active market. It is easy to know the savings when the prices are traded, but with products like dates and apricots with no market price it makes it almost impossible to know their true market price. The more unique the product is (and unique packaging) the more difficult it is to calculate savings. The savings are reported to head of purchasing and to the supply chain director but not further up (Head of Purchasing, 2014-02-07). Measuring savings within purchasing is not as easy as measuring savings of production. For instance, if we have bought hazelnuts just before the price increase by 40%, should purchasing consider it a saving when market prices fluctuate that much (Supply Chain Director, 2014-02-24)?

The purchase function uses an iceberg structure to better understand what is important to focus on. At the top of the iceberg it is important to increase the buying power by measuring total cost of ownership (TCO) which includes not only the purchase price but also inventory costs, transportation costs, cost of quality control and administration costs. Beneath the water we have demand management, which involves other departments as well, such as marketing. In the bottom of the iceberg there are process improvements on how to buy the products which include if transportation or inventory can become more efficient (Head of Purchasing, 2014-02-07). Certain purchasers think it is

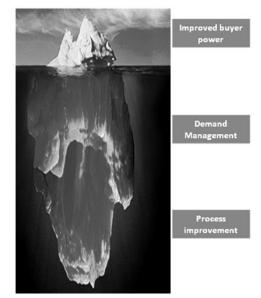


Figure 10. Iceberg Structure

frustrating that they are only measured on how they perform on top of the iceberg. The purchasers are only measured by savings and no other accomplished efficiencies (Lead Buyer 1, 2014-02-13). According to Axelsson (2014), too much focus on fast results and not on long-term structures can problematize improvement within purchasing.

4.5.2 Insufficient Measuring of Savings

Measuring savings is really important, but it is just as important to measure price increases. Today the case company does not measure price increases since there is not that much to do about the increases. A large part of the sales is to large food stores and they document the price increases for them, but they are only allowed to take out the price increase on their prices to the retailers 2-3 times a year and this usually result in the sales decreases (Lead Buyer 3, 2014-02-24).

The savings we report do not fall on the bottom line. As Category Manager 3 (2014-02-19) put it *"It is a little bit of bullshit"*. The purchasers do not take into consideration price increases today and usually the prices have increased more than the reported savings. This, in turn, lead to category managers focusing on making savings were it is possible and ignore focusing on the products they know will increase in price since this is not measured. The case company believes that the purchasers are constantly realizing savings, when this is not actually true. The Group wants to change the way savings are measured today to also include price increases (Category Manager 3, 2014-02-19). Since last year, price movements are reported to the sales function. Price increases are something the category managers take for granted and are a condition they need to live with which makes it difficult to measure the category managers' achievements (Head of Purchasing, 2014.03.11).

4.5.3 Under - or Overestimation of Cost Savings

Evaluating the value of purchasers work is very subjective as it is also combined with other factors such as market fluctuations (Axelsson, 2014-02-13). The issue of whether the purchasing unit under- or overestimates its cost savings is very shattered between the employees in the department. The supply chain director believes the savings are overestimated since it is not assumed that all the savings that are reported are a direct increase on the margin. The purchasers need to work closer with the sales department in order to communicate when they have received lower prices than the market, so the cost calculations do not disappear to the customer (Supply Chain Director, 2014-02-24). The case company's customers have strong buying power and when there is a market decline on raw materials they force the case company to lower their prices. When the purchase function has managed to

lower prices more than the market, then it is possible to gain a margin increase (Head of Purchasing, 2014-01-29). The purchase controller believes that when not taking into consideration savings from market fluctuations then the savings are probably overestimated. Taking market fluctuations into consideration does however give a good approximation of the real savings (Purchasing Controller, 2014-02-24). Two purchasers believe the reported savings are good approximations of the real savings (Strategic Buyer 2, 2014-02-26; Category Manager 4, 2014-02-26). One category manager on the other hand believe the reported savings are too low since many category managers do not report small savings in the excel file (Category Manager 1, 2014-02-24)

4.5.4 How Purchasers Performance is Measured

The case company's purchase function has a savings budget which in turn is broken down to savings per category. Since a couple of months back it is also broken down per individual purchaser. The head of purchasing and the supply chain director sets the budget mostly based on previous years estimations combined with the market outlook. The budget is a stretched target and is revised mid-year. Before the budget is set the head of purchasing talks to the managers in charge of the category to see if they believe the target is reasonable (Head of Purchasing, 2014-02-07; Category Manager 1, 2014-02-24). Individual score cards assumes that the category managers have clear responsibilities and the category managers do not really have that yet. In certain categories there are 2-3 category managers and the responsibility areas are not clearly defined in these categories. The entire organization is not really prepared since it is assumes that one works differently in other parts of the organization as well. Previously, suborders was the purchasing departments responsibility but the planning department (who took over it) have not really accomplished it yet and since the category managers have the knowledge it usually ends up with them still taking care of the suborders (Strategic Buyer 1, 2014-02-18).

According to the Head of Purchasing (2014-02-07), the case company assumes it is a basic assumption that the prices should be lower next year because of good purchasing work where cheaper suppliers are chosen and good negotiations. If you have worked as a category manager for a few years, then you have already "picked the low hanging fruits". You could also expect that suppliers increase their productivity and can hence lower the prices. There must be some limit were suppliers no longer can increase productivity but there is always

theoretically at least, an expectation that category managers will lower the prices (Head of Purchasing, 2014-02-07).

The Group is highly price-focused mostly due to the fact that it is originally a farmer cooperative and farmers tend to be cost-conscious (Lead Buyer 1, 2014-02-13). It is important that you do not only focus on delivering quick savings. There are a lot of savings that can be done within inventory and lead times with activities that take time but that generate good results. With the savings targets that the case company has today it is difficult to have time for these activities (Lead Buyer 1, 2014-02-13). The purchasing department works with several KPIs such as savings, supplier KPIs, quality, service level (right quantity received), supplier approval process (risk judgment of suppliers) and that code of conduct is implemented in the agreements (Purchasing Controller, 2014-02-24).

4.6 Supply Chain Maturity

Industries that have experienced intense international competition have been forced to develop the purchasing units quicker. If competition has been low or if purchasing has not been prioritized in the case company then the purchase department is usually less developed (Axelsson, 2014-02-13).

4.6.1 Level of Maturity

The Groups implementation of purchasing systems for indirect material has developed the purchasing of indirect material. The purchasing unit in the studied case company has received competence from the Group and used the Groups purchasing agreements. Purchasing could develop more by coming in earlier in the product development phase and work more integrated in the process of developing new products (Lead Buyer 1, 2014-02-13). Purchasing could also go further in the integration with suppliers and share data and prognosis in order to build a good relationship (Supply Chain Director, 2014-02-24). One category manager believes that the case company has a long way to go before the purchasing unit can be considered to be mature. In the summer of 2012 the studied case company cut 20% of their purchasing staff due to lack of profitability which has increased the workload for the category managers. This saving can be very costly since if the purchasing unit is going to develop, a higher work force is needed. Purchasing assistants could release the workload of the category managers so that they could focus more on educating themselves in new trends and development opportunities (Category Manager 1, 2014-02-24). Other category managers

believe that the purchasing unit has come far in the development. The category managers have become more structured and organized (Category Manager 4, 2014-02-26; Strategic buyer 1, 2014-02-26; Head of purchasing, 2014-02-02). The supply chain director (2014-02-24) explained the maturity level as "The Group is a rough diamante".

4.6.2 Working Processes/ Structure: New Employees

According to Axelsson (2014) one limitation that can diminish improvements within purchasing is the lack of organizational structure and capability of implementation. Communication is also an important factor that can be difficult to manage. Price/cost per unit decreases for products when category managers work in a more structured way. The category managers work very differently, which is partly due to that they work with buying different products. Category managers that work with raw materials change suppliers more often than those working with commodities (Category Manager 2, 2014-02-13). Certain purchasers are category managers or strategic buyers and others are lead buyers, which also affect the way they work. The employees are situated in different parts in the Nordics and many of them have worked in the case company for many years (Lead Buyer 3, 2014-02-24). In theory it might be clear how a manager should work but it also need to be effectively implemented in practices.

Those that have worked in the case company for a long time have a certain way of working and it can be difficult to change (Strategic Buyer 1, 2014-02-18). There are both advantages and disadvantages with a long experience of working with purchasing. It is good to have gained experience but it is just as important to be able to work cross-functionally and in a Nordic organization (Purchasing Controller, 2014-02-24). In order to get more efficiency on the processes the category managers need to work more structurally (Category Manager 3, 2014-02-19). The head of purchasing want the category managers to work more strategically but it is difficult since no one takes responsibility of the operative issues (Lead Buyer 2, 2014-02-18).

When a new employee comes in to the purchasing unit there are deficiencies when it comes to handing over tasks. That is why occasionally people need to reinvent the wheel on their own. The case company struggles with finding routines for this. It depends a lot on who your supervisor is rather than the organization. This is mostly due to that the case company had a large restructuring in summer 2012 which has made it difficult to build up new structures

(Category Manager 3, 2014-02-19). In purchasing there are a few processes that are documented but they could be improved but it is probably not why some people find it difficult to come in to the organization. Those who work with purchasing have a wide network which is not something you can get with good processes organization (Purchasing Controller, 2014-02-24).

4.6.3 Lack of Process Owners

By having organized business processes and clear process owners it is easier to follow up the work of the category managers and identify savings (Axelsson, 2014-02-13). Many of the category managers find it important to increase the clarity of who is responsible for different processes (Category Manager 2, 2014-02-13; Lead Buyer 1, 2014-02-13). There should also be more formal work descriptions. Many of the purchasers do not know what their formal title is without looking it up. There is still confusion of what tasks the planning department is responsible of, the product developments role or the manager role (Category Manager 2, 2014-02-24).

4.6.4 Cross-Functional Organization

The case company's purchase function is internally integrated with the product development division and the quality division. The integration with these departments enhances that the quality and regulatory specifications are being met (Strategic Buyer 2, 2014-02-26). In the category management process, the plan of how to utilize the suppliers is done on a long term perspective. The plan should be done in collaboration with product development and other internal stakeholders (Head of Purchasing, 2014-03-11).

The product development and quality divisions make joint monthly reports with the purchase division (Supply Chain Director, 2014-02-24). The integration with the product development employees is crucial for the innovation process and in the long run the competitiveness of the studied case company has to be able to develop new products in order to stay competitive (Lead Buyer 3, 2014-02-24). According to several of the interviewed, the integration with the sales department is also crucial in order to inform themselves about potential price changes and market factors such as the increased competition (Purchasing Controller, 2014-02-24). According to Head of Purchasing (2014-02-07), *"The sales people are as far away as they can be in this purchasing organization"*.

The cross-functional teams now consist of people from product development, marketing, production, quality check and purchasing (Head of Purchasing, 2014-02-07). The integration between these departments needs to further be strengthened. For instance, the quality department and the purchase department do not always speak the same language. Quality does sometimes want functions that require the category managers to buy certain services from the supplier and this can be costly. The collaboration with production is also deficient since it is difficult for the purchase department to become more efficient if the product department do not want to take that step. The purchase department can only inspire and show the production department what can be improved. Another issue is when production has forgotten to mention that a product is expiring and purchase has already bought large volumes of raw material for that product (Lead Buyer 1, 2014-02-13), as the Supply Chain Director (2014-02-24) expressed it, "a lot of coordination and communication is required". By improving the crossfunctional collaboration purchasing can develop more (Supply Chain Director, 2014-02-24). Finally, the Supply Chain Director (2014-02-24) believes the future employees will work as a team rather than individual category managers. As he expressed, "in the future, managers will have the role as a combination of being a project leader and a manager". "The daily work will become a team performance rather than a single person performance" (Supply Chain Director, 2014-02-24).

4.6.5 Documentation/Technical support

The category managers need to become better in documenting everything they do in order to be best in class. They have to prioritize what to document since there is too much that need to be documented. Today, the purchase department is very dependent on individuals with tacit knowledge (Head of Purchasing, 2014-02-07). Better guidelines are required in order to improve documentation. A project report is not done for each project and it is not archived in a common way. For larger purchasing projects there is a sourcing template from the headquarters common resources department that can be used (Category Manager 2, 2014-02-13). According to the Supply Chain Director (2014-02-24), there has lately been a focus on IT and to improve the systems and "*we are working on improving these things from a process perspective*".

4.6.6 Central/Decentralized Organization

Centralization is usually an important factor for coordination (Axelsson, 2014-02-13). The category managers are physically geographical located at six different places among Sweden,

Denmark and Norway (Appendix 2). Category managers within same category are also situated in different parts in the Nordics. It is important to build a relationship of trust and within certain categories the category managers have known each other for several years and do not see a problem with the physical distance. If one does not know each other before working with the same category it is more difficult to build a relationship with trust from a physical distance. One interviewed expressed the following; "*Much faster communication ways are needed*" (Category Manager 3, 2014-02-19).

The studied company has previously been a highly decentralized company. When the Group formed a functioning headquarters in 2005 they began to work for a more centralized company. The power was before situated in the different sites and The Group is still trying to solve this. The purchase function is always in the leading edge when it comes to work more centralized but the rest of the company is too uncomfortable with it. It is difficult for purchase to work in an organization like this. The purchase function has not gained any synergies from being a central purchasing unit. There are advantages of being a central organization but there are also advantages of being a decentralized organization. It is important to find common purchase processes but it is important to have the local connection as well. Otherwise it is easy that the purchase function will be isolated if it is too central, it also need to be integrated with the other parts of the supply chain. If everything is central this will not work (Category Manager 3, 2014-02-19). One of the interviewed expressed the balance of being centralized and decentralized as: "We are today in the mix of working with central and decentralized systems. It is a challenge for us to work in this mix. We have not found the forms for working optimal from both these perspectives yet" (Category Manager 3, 2014-02-19). Centralizing to the outermost is not optimal if all the processes and teams are at place in order to be able to work cross-functionally. Currently there is a good structure for this on paper but it also needs to be implemented practically in the case company (Head of Purchasing, 2014-03-11).

Once a month the purchase function has a phone meeting where they go through their action log of tasks they are working with, which might be useful for the other category managers. During the meeting the Head of Purchasing also goes through new issues and the category managers can discuss on matters they need support with (Strategic Buyer 1, 2014-02-18). The purchasers might also have contact with each other when they work on projects together. It is important to have meetings when the purchasers are situated all over the Nordics. It is important to meet each other as well since it is easier to have a discussion with someone face-

to-face than over the phone (Purchasing Controller, 2014-02-24). Certain purchasers believe it would be better to have a meeting face-to-face each month than over the phone (Strategic Buyer 2, 2014-02-26). Other interviewed believe that the physical distance is not a problem. The category managers have contract with each other quite often and almost daily either physically, by phone or mail (Lead Buyer 3, 2014-02-24). During the meetings there is not that much knowledge-sharing since the purchasers buy different product and therefore there are not much synergies. The monthly meetings are good for asking for help with an issue that someone else has experience of (Category Manager 1, 2014-02-24). The Supply Chain Director has meetings with the purchasing unit once or twice a year but he also meets the purchasers when working in same projects (Supply Chain Director, 2014-02-24).

5. Analysis

This part will focus on the analysis of the theoretical framework from section 2 by applying the empirical findings from section 4. The analytical findings are presented as reflections of the empirical findings in relation to the theoretical framework.

The analysis will begin with analyzing how the flexibility in the supply chain affects the purchasing unit's ability to react fast to market changes. The second part analyzes how supplier selection is considered at the case company. Thirdly, we investigate how the case company work with cost savings and analyze it by using theory. Finally, the analysis presents how the three factors contribute to supply chain maturity within the case company.

5.1 Supply Chain Flexibility under Progress

The empirical findings show that there is a conflict in the supply chain when it comes to the flexibility. The purchasing unit has a high aim of being flexible but cannot perform on the intended and desired level. For instance, the purchasing unit aims to have a high degree of market and operations flexibility including the ability to quickly be adaptable to product, volume, new product, distribution and responsiveness changes (compare Vickery et al., 1999). However, the purchasing unit is rather reactive than it is proactive and does not adapt fast to changes from the retailers. As one interviewed exemplified, "the food retailers make new orders twice a year which affects the ability to meet new market changed between these time periods". In other words, the flexibility to meet new market changed between these two periods is low. Since the adjustments are done on a long term basis it is costly for the firm to change if they are selling a non-optimal product or volume. This result in a low degree of

flexibility for instance in the volume and distribution flexibility related to Vickery et al.'s (1999) theoretical framework.

If the case company could meet the customer needs and trends better, they would improve their ability to be flexible. The empirics' shows that the purchasing unit in some cases wants to create trends independently from the customers' preferences, while in other cases they scan the market and meet customer demand. This is a paradox but requires in the last case that the case company need to increase their ability to be market flexible (Coronado et al., 2007).

The ability to deliver on time and adapt to changes in for instance volume can be seen from an organizational and internal view. Integration and flexibility with the quality function is important in order to secure the quality of raw materials and other components. The category manager has to make sure that the supplier is qualified and can deliver the required specifications. Since the purchasing unit does not work in an optimal way from a cross-functional perspective, the collaboration with the other functions is negatively affected. The collaboration internally is crucial for the ability to be flexible in the logistics. In other words, the organizational low flexibility (the ability to match the labor force skills with the market requirements) has to do with the firm's low logistics flexibility.

A better integration with the suppliers by using a better IT system or having more open data regarding forecasts would increase the overall supply chain flexibility. Modern IT systems will enhance the integration and collaboration leading to better respond to changing customer demand and market preferences (Coronado et al., 2007). If the case company would provide more information to their suppliers and be more open with their data, the planning would be better. The control mechanisms would be different and would lead to more trust and openness (Kraus et al., 2007). This will lead to better forecasting in the long run and increase their ability to be proactive. Today the purchasing unit acts more reactive than proactive which is costly. By being more open, sharing more data and being more integrated in the systems, the flexibility will increase and the cost of being flexible will be decreased. In this way, potential cost savings can be generated. Finally, the purchasing unit has a relatively low degree of flexibility when it comes to the presented perspectives; operations system flexibility, market flexibility, logistics flexibility, supply flexibility, organizational flexibility and information systems flexibility (Coronado et al., 2007). This leads to a company which can adapt to

changes but cannot do it in an optimal and cost efficient way. Being more flexible in the long run will generate a better ability to be strategic, react more proactive and make cost savings.

The food industry is not flexible in general (Wagner et al., 2012). This fact is illustrated in the organization when it comes to the logistics flexibility. As Coronado et al. (2007) defines the logistics flexibility, it is the ability to receive and deliver products cost effectively. The empirics regarding the industry flexibility when it comes to the distribution and logistics are speculative. The actors are not open with their prognoses and do not want to share their forecasted and historical data. This results in an industry which is characterized to be rather low in flexibility.

5.2 Focus on Price in the Supplier Selection Process

The supplier selection process is important for the degree of supply chain maturity. In the empirical findings the most important criteria in the selection process of the suppliers was the price. This is stated by several of the interviewed as the important factor also for making cost savings and being successful as a category manager. As one interviewed express it; "*You want to make cost savings and buy at low price that is what purchasing is all about*". (Category Manager 3, 2014-03-10, Lead Buyer 3, 2014-02-24). It is also supported theoretically by Xia (2007) who claims that the cost is the most important factor in the selection process. According to van Weele (2005, p. 54), the reasons why complex and advanced supply chain management concepts and systems have developed, are because the industry is faced with small margins and increased cost focus. However, the second most important performance indicator was the capacity to deliver on time. The third factor was the quality which demonstrates that the firm also takes other performance indicators into consideration during the supplier selection process (compare Vijayvagy, 2012).

There are currently many changes and developments in the retailing industry (van Weele, 2005, p. 306). For example the increased concern for the environment and the increased demand for biodegradable packaging. The environmental and ecological perspectives are important factors in the selection process for this specific case company. Ecological considerations are growing in importance (van Weele, 2005; Jabbour et al., 2009). However, according to the empirical data, these indicators have not been showed to play a crucial role in the supplier selection process. It is not a factor which is ranked as crucial by the interviewed. The environmental and ecological perspectives can rather be categorized as indicators of good

reputation from the performance indicator perspective (Vijayvagy, 2012). Furthermore, long term relationships are also mentioned as an important factor in the selection process. This factor can be seen as a characteristic of the performance indicator having a reliable service, and that the supplier is durable over time, but has not been mentioned as critical in the selection process.

The category managers tend to approach the product specifications slightly differently. This may be due to the fact that the employees are working at different places geographically, do not communicate on a daily basis and have varying experience from working with procurement. Furthermore, the empirical data and the strategic documents such as their procurement purchase process document (2012) demonstrate how important the requirements and the certifications are in the product specifications. Managers generally check if the standards are being met and if the code of conduct has been followed. Furthermore, these implications of how the managers should practically work with the case company's overall purchasing strategy are something that they are currently working on. The case company aims to be more flexible for the future but still have the cost in focus (Director, 2014-03-13). However, since the organization is developing and the business units have changed over time, the working structure and how to approach their strategy has not been standardized among all employees.

Even though the category managers are working according to the specifications, there is room for personal judgments and individualistic differences. Some employees have more experience from the industry and have been working for a longer time in the case company than others. These employees can make contracts on a more independent level than the less experienced employees who tend to collaborate more in a cross functional setting and collaborate more with the product development division. In other words, since the category managers are not always consistent in the selection process and follow the same selection criteria, the souring maturity is negatively affected.

The focus on price has implications for the supply chain maturity. Since the industry is rapidly changing and the prices often are changing, the organization cannot adapt as fast as they would like to do. This leads to a purchasing unit which is rather reactive than proactive. Therefore, the supply chain maturity is negatively affected since the purchasing unit does not come to a standardized way of working. This business setting requires more from the category

managers and they have to be fast to react to the changes, which sometimes leads to an increased workload. The director of the division expressed the fact that they want to work more cross-functional in the future as; *"In the future the manager's position will be different from what it has been historically, it will be more like a combination of a project leader and a manager. It will become a position where it is required to work with a personal drive and ability to coordinate effectively"* (Director, 2014-03-13). This idea is strengthened theoretically by van Weele (2005, p. 298) who claims that the role has developed to have increased focus on retail concepts and improve category management. Since both the responsibilities the purchasers have and the purchasing unit is under progress, the purchasing division cannot be considered as fully mature at the moment. This has consequences for the ability to act proactive and being flexible to changes. However, we consider the case company to have the ability to be more integrated in their value chain operations and will become more mature over time in line with the industry development.

5.3 Increasing Efficiency by Measuring Accurately

In the studied company the category managers often buy ongoing or major impact products. The majority of the suppliers have supplied products for the case company for several years (Category Manager 1, 2014-02-24) but the case company does still not seek a more strategic relationship with them (Supply Chain Director, 2014-02-24). According to Ellram's (1996) cost analysis technique model, the case company has a leverage relationship with its suppliers and should therefore have a cost analysis focus and use techniques such as total cost modeling or value analysis. The studied company claims that they use total cost of ownership analysis of their suppliers (Head of Purchasing 2014-02-07), which would assume that they have a strategic relationship with their suppliers. The empirics show that the category managers in reality use more simple techniques such as competitive bidding or compare prices (Category Manager 1, 2014-02-24). They do also take into consideration cost of transportation and other related costs but this is done in a more approximate manner (Lead Buyer 2, 2014-02-18).

The studied company does not measure savings accurately according to Johnson et al. (2010). They only measure year-over-year price reductions (Head of Purchasing, 2014-01-29) which indicate that they underestimate savings. On the other hand, they also report savings that are due to market fluctuations (Category Manager 3, 2014-02-19), and this is an indication of overestimating savings. The category managers have different opinions of weather the reported savings are under- or overestimated but in either case it causes damage for the

purchasing unit. The purchasing unit has a low status in the case company (Change Manager, 2014-03-17) which can be an effect from understating savings. By understating savings, companies tend to move focus from pursuing strategic initiatives to lower the cost of managing the supply function (Johnson et al., 2010). The purchasers feel that they are only measured on hard savings and not on long-term efficiency projects (Lead Buyer 1, 2014-02-13). As late as in 2012 the employees in the purchasing unit were cut by 20% (Category Manager 1, 2014-02.24) which is also an indication of consequences of understating cost savings. What points toward the savings being overestimated is that price increases are not reported as a decrease of savings within the case company and market fluctuations are measured as savings. According to Johnson et al. (2010) market fluctuations should be reported in the case company but not as savings. In the case company it is difficult to distinguish what is a market fluctuation due to the lack of market prices (Head of Purchasing, 2014-01-29). When overstating savings the validity of the savings can be questioned which in turn can lead to savings initiatives being questioned (Johnson et al., 2010) and this has been realized by certain category managers (Category Manager 3, 2014-02-19). The response to the damage overstating can cause is unfortunately to understate savings by only report clear cut savings but this only intensifies the problem (Johnson et al., 2010).

The food industry is special since the companies sell their products to larger retailers with great buying power. The retailers know when there has been a general market decline in raw materials and they are then forcing the case company to lower its price on the products affected by the price decline. Good purchasing is conducted when the purchaser has managed to lower the price beyond the market price and can gain a marginal increase (Head of Purchasing, 2014-01-29). If there are price increases on raw materials the case company is usually only allowed to increase their prices 2-3 times a year and this usually results in sales decreases which might end up that it is not worth increasing the price (Lead Buyer 3, 2014-02-24).

The Head of Purchasing (2014-02-07) also problematized the fact that there is a limit to how much suppliers can increase efficiency and purchasers can find the lowest cost alternatives. At a certain point lowering prices of purchased goods must reach its limit. Savings are budgeted on each purchaser but the lack of transparency of process ownerships makes it difficult to measure which purchaser has performed the saving. This is especially true in certain categories where there are several purchasers working together with no clear dispersion

between the assignments (Strategic Buyer 1, 2014-02-18). Today purchasers are only measured on hard savings. Too much focus on fast result can problematize improvements within purchasing since there will be a lack of long-term structures (Axelsson, 2014). Purchasers also believe that savings can be made on more long-term projects but this is not promoted in the case company since the purchasers are only measured on current savings. This results in a more short-sighted focus in the purchasing unit to meet savings budget (Lead Buyer 1, 2014-02-13). The inadequate cost analysis techniques and measuring of savings and the short-sighted focus on generating savings indicate that the purchasing unit is not fully mature when it comes to generating cost savings.

5.4 Working for a Mature Purchasing Unit

Shiele (2007) show there is a significant relationship between a firm's maturity level and its cost-reductions. The case company focuses much on reducing costs (Head of Purchasing, 2014-01-29) and therefore its maturity level is of great interest. According to van Weele (2005, p. 140) companies within food industry are in the third step of the six step maturity model. Companies in the food industry focus on coordinating purchasing and primarily act on its own. They also become more relied on centralization of the purchasing unit. In the studied company they used to be highly decentralized but since a few years, they have tried to coordinate purchasing to become more centralized (Category Manager 3, 2014-02-19). The purchasers are still situated in six different cities in the Nordics and work relatively individually, except for category managers working within the same category (Lead Buyer 3, 2014-02-24). The studied company attempts to become more centralized by adopting crossfunctional teams but this has not been completely successfully integrated. The purchasing unit has imposed new organizational structures that the rest of the case company is not mature enough to handle (Category Manager 3, 2014-02-19). The purchasers are therefore working in the middle of the old structure and the new. This has caused confusion for the purchasers who still work more operational as in the old structure since they see that no one else takes on operational tasks (Lead Buyer 2, 2014-02-18). Leenders et al. (1997) concluded that in an effective purchasing unit, strategic orientation is a fundamental premise and highly important to strategic purchasing (Carr et al., 1997). The case company has not established a successfully effective purchasing unit due to the lack of strategic orientation within the entire case company. This is mostly due to that the studied company had a large restructuring in summer 2012, which has made it difficult to build up new structures (Category Manager 3, 2014-02-19) and certain purchasers that have worked in the case company for a long time have difficulties in changing their way of working (Strategic Buyer 1, 2014-02-18). The head of purchasing want the category managers to work more strategically but it is difficult since no one takes responsibility of the operative issues (Lead Buyer 2, 2014-02-18). Introducing cost reduction programs in an organization that does not have a maturity level to accomplish the cost reductions is another difficulty in the case company (Shiele, 2007). The purchasing unit has a low legitimacy level in the case company (Change Manager, 2014-03-17) which makes cross-functional collaboration difficult to realize purchasing savings from. Even though the purchase unit has imposed a more centralized purchasing and cross functional teams, it is not believed that this has been completely integrated within the case company and that the benefits from it has not been realized. Therefore, it is not assumed that the purchase function has fully reached a higher level of maturity.

Centralization is usually an important factor for coordination (Axelsson, 2014-02-13). Whether a company should structure its purchase centrally or decentralized depends on the purchasing maturity and the corporate cohesion (Rozemeijer et al., 2003). The studied company has a medium level of purchasing maturity as previously mentioned and the corporate cohesion in the case company is relatively low due to the dispersion of the business units (Category Manager 3, 2014-02-19). The different sites operate differently due to historically being very decentralized and shattered across the Nordics. This implies that the case company should structure its purchasing either by federal purchasing, were the sites have autonomous decentralized purchasing units receiving support from a small corporate purchasing staff, or decentralized purchasing (Rozemeijer et al., 2003). The consequence of a shredded purchasing unit has resulted in the dependence of certain purchasers' tacit knowledge (Head of Purchasing, 2014-02-07). The physical distance between the purchasers also hammers the possibility of collaboration and coordination. In the case company one has tried to impose a center-led purchasing structure in an organization that is neither mature nor coherent enough to manage it successfully. Centralizing to the outermost is not optimal if all the processes and teams are not at place in order to be able to work cross-functionally. The purchase function is always in the leading edge when it comes to work more centralized but the rest of the company is too uncomfortable with it (Head of Purchasing, 2014-03-11). Most employees in the purchase function seem to doubt the thought of centralizing the case company. It is believed that the employees feel that the case company as a whole is not ready to take the step towards a more centralized organization.

Spekman's (1999) ten principles of effective sourcing indicate what factors are important to become one of the best purchasing units. The studied company has not been able to manage many of these principles. For instance, integrating suppliers into the supply chain and share information with trading partners has not been implemented. Letting the suppliers manage innovation is also something that has not been implemented (Supply Chain Director, 2014-02-24). As mentioned earlier, the studied company has not managed to effectively organize procurement structures with organizational structures in order to achieve alignment (Purchasing Controller, 2014-02-24). By not using advanced technology it is difficult to be transparent in the activities. There are a few principles that the case company is trying to improve. They have a relatively close relationship with their suppliers since they have worked with many of them for several years and have a structured purchasing by having category teams (Category Manager 1, 2014-02-24). The case company also attempts to look at total cost of ownership but since the purchasers come in late in the development process they do not have that much authority to change the specification (Purchasing Controller, 2014-02-24). In certain cases the purchasers has no other choice than to buy from only one supplier since it might be stated in the specification that the product needs to be purchased from a Swedish supplier (Category Manager 1, 2014-02-24). This also makes it difficult to look globally for advantages. The lack of collaboration between the different functions can cause diminishing efficiency and decreases the scope in which the category managers can increase efficiency.

Summing up, the case company is reactive rather than proactive, shows a strong emphasis on price in the supplier selection process and has difficulties in measuring cost savings. This affects the supply chain maturity negatively.

6. Discussion

In this section we will discuss the implications of our findings. We will first examine the importance of maintaining flexible in the supply chain and choosing the right suppliers for ensuring a high degree of maturity. This is followed by a discussion of the consequences of measuring supply savings inaccurately and its implications on maturity. Next, we will present the benefits of ensuring a mature purchasing unit in an environment where competition is high. Finally, we will conclude by providing theoretical and practical contribution of the thesis.

In this study we have applied Van Weele's framework, together with relating theories to analyze if supplier flexibility, supplier selection and cost savings contribute to a high degree of supply chain maturity. The aim of the thesis has been to understand three different factors that influence and affect the supply chain maturity reached in a purchasing unit of a firm in the food industry. In this section we will discuss our results to understand the importance of relating supply chain maturity to other factors that are outside the scope of maturity.

6.1 Three Factors that Complement the Definition of Maturity

The van Weele (2005, p. 93-96) framework mainly focus on the centralization/ decentralization and functional/cross-functionality aspects of the supply chain maturity. In this paper we have also introduced flexibility in the supply chain, supplier selection and cost savings. These three additional factors are important to the level of supply chain maturity since they increase the level of professionalism in the purchasing unit. The strong emphasis on price in the supplier selection process leads to a case company that is focused on making cost savings. However, the empirics show that the case company does not measure the savings accurately. This results in a lower legitimacy of the purchasing unit internally and leads to a lack of collaboration among the different functions. This has affected the difficulty in maintain a well prospered cross-functional collaboration and hence affected the level of maturity. Even though the supplier selection criteria are clear and stated in the specifications, the individual category managers have a high degree of autonomy resulting in varying working structures. In other words, the category managers do not work in a structured and standardized way. This has resulted in a lack of process ownership and a confusion of responsibilities and hence affects the maturity level negatively. The case company could become more flexible if they would integrate with their suppliers and the retailers. This could be achieved by increasing openness and transparency between the two parties. By integrating either forward or backward in the supply chain the case company could gain a competitive advantage since this is not yet common within the food industry.

6.2 Theoretical Contribution to Research

This paper contributes to the purchasing literature by exploring three factors contribute to a high degree of maturity within a purchasing unit in the food industry. Van Weele's (2005, p. 93-96) framework of the six different levels of sourcing maturity is mainly based on the level of centralization and cross-functionality within the case company. This paper has provided evidence that supply chain flexibility, supplier selection and cost savings contribute to

increasing the level of professionalism in the purchasing unit and hence the maturity for a company in the food industry. Specifically, we examine the implication of the flexibility in the supply chain, the supplier selection and the measurement of cost savings influence of the level of maturity. Previous research has not focused on these three factors effect on maturity in a micro perspective setting. These findings provide new insights within the field of supply chain maturity within the food industry. Previous research has mainly focused on taking an industry perspective (van Weele, 2005, p. 93-96), while this study has taken a micro perspective of supply chain maturity, which contributes to a developed knowledge within the field.

6.3 Practical Contribution

Our findings offer insight to the importance of ensuring a consistent level of maturity within an entire company in order to enable the purchasers to generate cost savings. In companies were the purchasing unit want to increase maturity by centralizing and work crossfunctionally while the rest of the case company is not mature yet, will often result in a strategic mismatch. If the purchasing unit try to impose cost-reduction programs that the rest of the case company is not mature for yet it will most likely fail. The purchasers are motivated to change and increase maturity but when they are constantly facing drawbacks from the internal organization it can decrease the purchasers' motivation. This in turn can severely affect the possibility of increase maturity in the case company when the purchasers feel that there is no point in putting an effort into increasing maturity. Therefore, it is important to increase maturity within the purchasing unit and at the same time increase maturity within the entire case company. If one does not succeed with increase maturity it could be difficult to increase cost savings. This can have a substantial effect on the case company survival in the competitive environment were margins are constantly shrinking.

7. Conclusion

The purpose of this paper was to investigate if supplier flexibility, supplier selection and cost savings con tribute to a high degree of supply chain maturity in the purchasing unit of a firm in the food industry. The thesis findings conclude firstly that the supply chain flexibility is an important factor for the maturity, specifically the market flexibility and the logistics flexibility. Within these findings, the study concludes that the case company's ability to adapt to the target market and the customers' demand can be increased in the future. The second important factor that was found was that the case company has a strong emphasis on price in

the supplier selection process. Other selection criteria such as the environmental criteria, is considered important as well. When focusing on building long term relationships with the suppliers rather than focusing on low prices, the firm is more strategic and cost efficient. A third important factor for the souring maturity is the case company's ability to measure their cost savings. By improving their measurement techniques for the future, the firm will strategically and financially have more accurate historical data to build their future strategy on. The aspect of long term thinking in their supplier selection process and in their cost saving techniques will indirectly lead to better competitiveness. Lastly, the finding of the case company's centralized organizational structure and the aim to work more cross-functional in teams is seen as important factors for improving the maturity. By improving these organizational factors as well as their supply chain, the supply chain maturity will be higher and the ability to generate cost savings will increase.

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9. Appendix

Appendix 1

The interview questions were used as a base and a structure to build further on depending on the interviewees' answers.

Interview Questions Purchase Managers

Background

- Could you please tell us about your background?
- What is your education and professional experience?
- What role do you have?

Theoretical Framework

- How do you work with purchases as a process?
- How do you communicate and share experience with the other managers?
- How do you get measured and evaluated on your performance?
- Since no bonus systems are used, what do you think the consequences are?
- How do you define when the division makes a successful result?
- To what degree do you think the purchasing division is mature when it comes to have a good structure? (sourcing maturity)
- What are the supplier selection criteria and the specifications for doing purchases?
- Can you please rank the performance indicators from the perspective of the importance for the purchase unit?
- What works well and not well in the purchase process?
- How often do you talk to your suppliers? (what relationship do you have with them?)
- Do you believe that you under/overestimate you supply savings? For instance do you take into account increased quality but same price?

Interview Questions Head of Division and Director

Background

- Could you please tell us about your background?
- What is your education and professional experience?

- What role do you have?

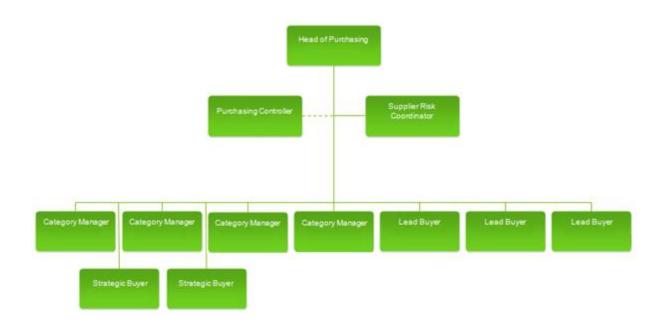
Theoretical Framework

- What does the organization look like?
- What are your responsibilities?
- How do you know if the cost savings are successful?
- Have you done any best practice comparisons or analyses concerning cost savings in the industry?
- If you could improve the organization in order to be more flexible, what would you do?
- What are the challenges for the future for the organization? Internal organizational factors and external factors?
- Do you think that the purchase organization is flexible and adapts well to changes? (react with little penalty in time, effort, cost or performance)
- How flexible are you when it comes to the below parts?
 - a. *Operations system flexibility* (ability to configure operations to react to emerging customer trends)
 - b. *Market flexibility* (ability to mass customize, build close relationships by designing and modifying products)
 - c. *Product flexibility* (which is defined as the firm's ability to provide a customized product for specific customer demand)
 - d. *New product flexibility* (which is defined as the firm's ability to launch new or modified products)
 - e. *Responsiveness flexibility* (which is defined as the firm's ability to respond to target market requirements)
 - f. Logistics flexibility (ability to receive and deliver products cost effectively),
 - g. *Volume flexibility* (which is defined as the firm's ability to adjust capacity in order to meet changes in customer quantities)
 - h. *Supply flexibility* (ability to adapt the supply chain according to the supply of product and customer demand)
 - i. *Distribution flexibility* (which is defined as the firm's ability to provide wide access to products)

- j. *Organizational flexibility* (ability to match labor force skills to the customer needs and market requirements)
- k. *Information systems flexibility* (the ability to build information system appropriately as it responds to changing customer demand)
- How well do you think the firm is integrated with their suppliers?
- What is you view on the supplier selection criteria concerning the environmental / ecological perspective?

Appendix 2

The purchase unit organizational chart.



Appendix 3

Interviews

1.	Purchase Unit	Head of Purchasing	2014-01-29
2.	Purchase Unit	Head of Purchasing	2014-02-07
3.	Purchase Unit	Head of Purchasing	2014-03-11
4.	Purchase Unit	Supply Chain	2014-02-24
		Director	
5.	Purchase Unit	Supply Chain	2014-03-13
		Director	
6.	Purchase Unit	Category Manager 1	2014-02-24
7.	Purchase Unit	Category Manager 2	2014-02-13
8.	Purchase Unit	Category Manager 2	2014-03-17
9.	Purchase Unit	Category Manager 3	2014-02-19
10.	Purchase Unit	Category Manager 3	2014-03-10
11.	Purchase Unit	Category Manager 4	2014-02-26
12.	Purchase Unit	Lead Buyer 1	2014-02-13
13.	Purchase Unit	Lead Buyer 2	2014-02-18
14.	Purchase Unit	Lead Buyer 3	2014-02-24
15.	Purchase Unit	Strategic Buyer 1	2014-02-18
16.	Purchase Unit	Strategic Buyer 2	2014-02-26
17.	Purchase Unit	Purchasing	2014-02-24
		Controller	
18.	Purchase Unit	Supply Chain	2014-03-13
		Director	
19.	Group Supply Management	Change Manager	2014-03-17
	Excellence		
L			

Secondary data

Handelshögskolan. Björn Axelsson. Professor at the Department of Marketing and Strategy at Stockholm School of Economics: Stockholm, 2014-02-13.

Appendix 4.

Savings Guidelines

GENERAL PRINCIPLES			
1. Generally, the Group shall apply a conservative and realistic approach for calculation and follow up of Supply Chain Savings.			
The saving effects shall, as far as possible, be net effects after deduction of costs related to achieve the saving.			
2. Savings are targeted and followed up in terms of their 12-months effect, splitted between the actual calendar years it has effect (if applicable).			
3. Supply Chain Savings shall always be verified by Controlling and saving effects above 100 kSEK shall be verified and signed off by Sector Controlling.			
REPORTING			
Supply Chain Savings are followed up and reported quarterly in two distinctive categories, COST REDUCTION and COST AVOIDANCE according to:			
COST REDUCTION			
o Reduced total cost due to improvement/efficiency project or activity, calculated as "after" vs. "before".			
o Any cost reduction effect that can be justified validated and signed off by Sector controlling.			
Examples - COST REDUCTION savings can typically be:			
o Price reductions			
o Specification changes			
o Elimination of intermediates			
o Bonus pay back			
COST AVOIDANCE			
o Avoided cost due to improvement/efficiency project or activity, calculated as "after" vs. "before".			
o Any cost avoidance effect that can be justified, validated and signed off by Sector controlling.			
o Index savings (cost avoidance compared and related to an index) is only calculated and valid for			
categories/material where a confirmed published index exists (published market prices, established indexes etc).			
Examples - COST AVOIDANCE savings can typically be:			
o Index savings			
o Requested price increase and cost increase mitigation			
o Claims - repayments in excess of the cost of material complained			
o Payment terms savings			

MARGIN IMPROVEMENT (MARGIN FÖRBÄTTRING)

With margin improvement one means:

a) a saving that is not a direct consequence of a lower market price, or

b) a saving that according to your judgement should not lead to a lower end price to the customer.

You need to make a subjective judgement as good as you can where you try to approximate how large share (and not general price decline in the market) of the saving is the result from a good purchasing work.