



**IN WHAT WAYS CAN LONG-TERM SUPPLIER RELATIONSHIPS BENEFIT
INNOVATION OF THE BUYER ORGANIZATION**

Lappeenranta–Lahti University of Technology LUT

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Examiner: Iryna Maliatsina D.Sc.

ABSTRACT

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In what ways can long-term supplier relationships impact innovation of the buyer organization

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This thesis aims to study the main ways that long-term supplier relationships can benefit the innovation of the buyer organization. This thesis also aims to study the reasons behind this. This is made possible by interviewing the professionals working on the field, on both supplier and buyer side.

This thesis is conducted as qualitative research. Qualitative content analysis is utilized for the analysis of the data. The data analysed is collected by three conducted semi-structured interviews. The participants of the interviews were established professionals on their field, working in international companies.

The results of this thesis show that the main benefit the buyer organizations can receive from long-term supplier relationships, is the knowledge and information gain it allows. Along with this, smaller benefits can be found, for example in suppliers being proactive to benefit the buyer.

TIIVISTELMÄ

Lappeenrannan–Lahden teknillinen yliopisto LUT

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Kauppätieteet

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Millä tavoin pitkäaikaiset toimittajasuhteet voivat hyödyttää ostajaorganisaation innovaatiota

Kauppätieteiden kandidaatintyö

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Tämän tutkielman tarkoitus on selvittää tärkeimpiä tapoja, joilla pitkäaikaiset toimittajasuhteet voivat hyödyttää ostajaorganisaation innovaatiota. Tämän tutkielman tarkoitus on lisäksi tutkia syitä tämän takana. Tämä on mahdollistettu haastattelemalla ammattilaisia, jotka työskentelevät alalla. Haastateltavia on niin ostajataholta, kuin toimittajataholta.

Tämä tutkielma on suoritettu hyödyntämällä laadullista tutkimusta. Laadullista sisällönanalyysia on käytetty datan analysointiin. Analysoitu data on kerätty pitämällä kolme semi-strukturoitua haastattelua. Haastatteluihin osallistuneet olivat kokeneita alan ammattilaisia, jotka työskentelevät kansainvälisesti toimivissa yrityksissä.

Tämän tutkielman tulokset osoittavat, että suurin hyöty, jonka ostajaorganisaatio voi saada, on tiedon ja informaation saanti, jonka pitkäaikaiset toimittajasuhteet sallivat. Tämän lisäksi pienempiä hyötyjä on saatavilla, kuten toimittajien halu olla ennalta-aktiivinen ostajan hyödyksi.

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1 Introduction

Long-term supplier relationship has been recognized as an effective strategy to cut costs (Dyer, 1997) and increase supplier commitment (Prahinski & Benton, 2004) for decades. There are also innovation benefits that have been studied (Noordhoff, Kyriakopoulos, Moorman, Pauwels & Dellaert, 2011). And in recent years, innovation via supplier management has become more and more recognized. For example, Leidos, an American information company, have been giving a yearly award for their most successful innovation partner of the year since 2017, as part of their Supplier Innovation & Technology Symposium (Leidos, 2023). Firms put significant efforts into maintaining these relationships, and in today's business world, they're nearly a necessity. There have, however, been studies that show negative innovation effects, such as the buyer organization being less likely to change partners, even when doing so would result in increased knowledge (Gu, Hung, & Tse 2008). It is clear to me that there are both positive and negative impacts, and utilizing this sort of supplier relationship requires knowledge of the subject. The aim of this thesis is to shed more light into this matter and make the impacts clear.

Long-term supplier relationships have been studied since before the turn of the millennium. There are multiple notable studies on this subject. I review these studies in a more detailed manner in the literature review section, but I will briefly note these here. An important study by Koufteros, Cheng & Lai (2007) introduces "gray-box" and "black-box" terms into the field, categorizing the product development cooperation between supplier and buyer. Another study, by Kannan and Tan (2006) demonstrates that supplier selection and engagement between supplier and buyer results in positive impact on the buyer firm's performance. Another key research that studies the same topic that this thesis does, is conducted by Noordhoff et al. (2011). This research explores the "bright" and "dark" sides of embedded ties, in other words, close relationships, when it comes to innovation in b2b context.

1.1 Research objective and question

The research question is “In what ways can long-term supplier relationship benefit the innovation of the buyer organization?”. I have opted not to divide this further into sub questions, as answering this question does answer the impacts I set out to study in a satisfying manner. The current literature on the subject largely focuses on quantitative data. This thesis attempts to tackle the issue from a qualitative point of view. This is done by directly interviewing professionals of the field to potentially learn something new.

In this thesis I study the potential innovation benefits of long-term supplier relationships. This thesis pinpoints the impacts that long-term supplier relationships can have on innovation, both positive and negative. I also explore the reasons behind this. This research is done on a dyadic basis, looking at the point of view of the supplier organization, as well as the buyer organization. This thesis focuses on the technological sector, which deals with large quantities of highly technological components. In this sector, innovation is one of the driving forces for competition.

1.2 Structure

This thesis constructs of this introductory chapter, which functions as a way to set the premise for the thesis. After, there is a further and more comprehensive literature review of the existing research on the topics of long-term supplier relationships, as well as focusing on the innovation area of this. After the literature review, there is a more precise chapter on the methodology used in this thesis. This explains the data collection methods, data analyzing methods and the structure utilized in the interviews. Following this, is the empirical section, where I present the results of the data collection, and discuss how they are to be interpreted, and how they answer my research question. Lastly, a conclusion chapter to summarize the thesis.

2 Literature review

In this chapter, I take a look at the existing research on the topic. Long-term supplier relationships have been extensively studied, and here I go over the most significant research. The innovation benefits are less researched, but there are a few key theories that are important to note. In long-term supplier relationship part, I consider research that discuss both cooperative and long-term relationships, as understanding both of these is key to understanding the potential benefits. In the innovation part, I look at studies and theories in the field of supplier management and innovation and product development.

2.1 Long-term collaborative relationship

In this chapter I consider the literature that explores the arguments for long-term collaborative relationships, and the implications that it brings to both suppliers and buyers. Plenty of studies have been conducted over the years, considering the side of buyer, the side of supplier, or both. A compelling study on the perspective of both suppliers and buyers was conducted by Nyaga, Whipple & Lynch (2010). In this study, the authors looked at collaborative relationships with the goal in mind to understand if there are differences in the perspectives of the supplier and buyer party. They utilized a structural equation model approach to test their hypothesis'. The result was that generally, suppliers and buyers have a similar perspective. However, in some areas, there were a difference in importance. For example, information sharing is more of an important factor for suppliers than it is for buyers. This is explained by the fact that it "helps the supplier provide products or services more efficiently and effectively". On the other side, trust has a higher impact on commitment for buyers than it does for suppliers. They also noted that buyers' commitment is mainly driven by intangible attributes, such as trust, where as for suppliers, the case is with more tangible attributes, such as information sharing. (Nyaga et. al, 2010)

2.1.1 Long-term collaborative relationships for buyers

Economists have, for a long time, recognized that cooperative relationships between firms can increase productivity. In 1972 Alchian and Demsetz compared the relationships between a household and their grocer to an employer and their employee. The argument was that these are not different relationships in reality, and that both are in fact a team process. They stated that cooperative specialization between resource owners lead to increased productivity. (Alchian & Demsetz, 1972) Gadde & Hakansson (1994) also researched the role of purchasing, noting that it is changing. In their article they emphasized the need for organizations to move towards closer cooperation in the buyer-supplier relationship.

In the year 2001, Humphreys, Shiu & Chan (2001) examined the phenomenon in Hong Kong manufacturing firms. The authors set out to determine the main criteria for forming collaborative supplier relationships in the Hong Kong area. They carried out the study by creating a comprehensive fourteen criteria questionnaire, each having multiple questions, with 300 large companies participating. The result of their study was that the three most important qualities are problem solving capability, capacity and logistics.

In 2012, Belderbos, Gilsing & Lokshin (2012) look at different partner types, when it comes to forming strategic partnerships. They utilize persistence, which they define as a way to predict future probability based on past activities. They studied the persistence of strategic alliances between customers, competitors, and suppliers. The outcome was that first of all, there is a degree of persistence in forming partnerships. This is to say there is a way to predict, whether a company would engage in such partnership, based on their past activities. They also saw that customer alliance strategies are the most persistent of the three.

2.1.2 Long-term collaborative relationships for suppliers

The benefits of collaborative relationships to supplier side have also been studied. In 2005, Corsten and Kumar took this point of view for their research utilizing empirical investigation. They studied specifically the relationship between a supplier and a large retailer. The authors focused on a single retailer, which was a large supermarket chain. The

conclusion of their study was that suppliers can see better economic results and improve their capabilities for collaborative relationships, by partaking in such. However, the authors note that the suppliers may not receive as large benefits from collaboration, as the buyer side, which can lead to frustration. (Corsten & Kumar, 2005)

Another study on the supplier side was conducted by Kalwani and Narayandas (1995). They chose a larger dataset based on Compustat data base. Their intent was to study the impact of long-term relationships on the supplier firms. In this study they utilized matched pair Wilcoxon Signed Rank Test. They concluded that forming long-term collaborative relationships is “Not simply a sensible strategy, it may also be essential to the long-term survival of the supplier”. This is because it can provide a long-term competitive advantage for the supplier. (Kalwani & Narayandas, 1995)

2.2 Innovation

In 2007, Koufteros et al. studied the supplier integration process for product development. They used “Black-box and gray-box” theory as a way to differentiate between supplier relationships. Black-box means that “suppliers carry out on their own the development of components or parts for the customers”, whereas gray-box means that “suppliers are working alongside the customer’s engineers for product development”. The result of this study was that gray-box approach results in significant positive effects on innovation. At the same time, black-box approach does not carry the same benefits. (Koufteros et al. 2007)

In an article called collaboration and technology linkages: a strategic supplier typology, year 2000, Kaufman et al. studied collaboration-based relationships and their link to technology and innovation. In the study they utilized a typology they invented, as well as variance analysis ANOVA, to analyze the data based on survey results. The authors find out that “suppliers that develop collaborative relationships with their customers tend to be technologically sophisticated”, meanwhile suppliers that do not develop these, and instead stick to normal market mechanisms, are not seen as technologically sophisticated. This means that according to their research, forming collaborative relationships, leads to positive innovation benefits. Their study also brings an interesting, yet logical conclusion: firms with

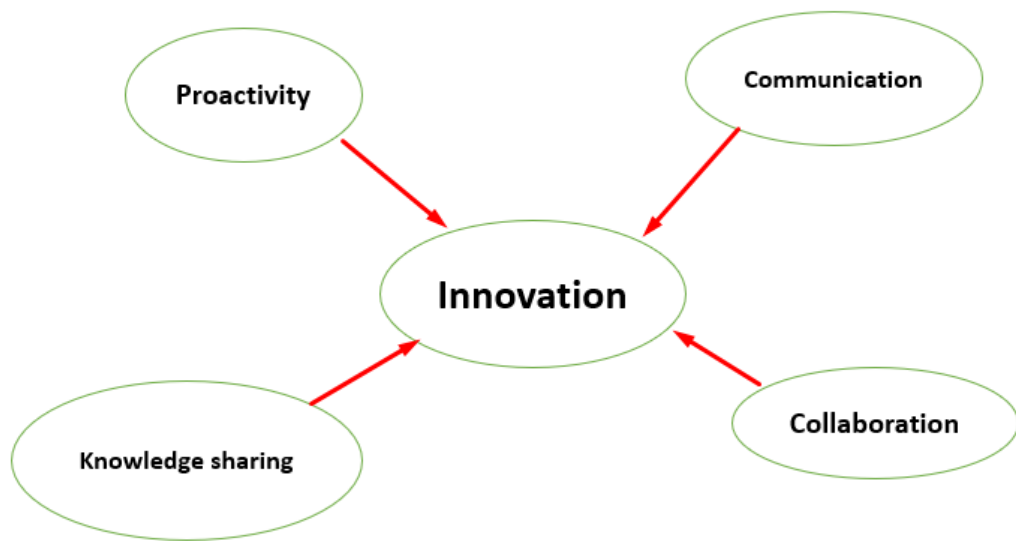
the administrative know-how to form and sustain collaborative relationships, are more likely to also have the know-how to make use of the advanced technology. (Kaufman et al., 2000) This seems to feed itself, in a way that firms that are ready for long-term collaborative relationships, are also better equipped to realize the potential innovation benefits.

Belderbos, Gilsing, Lokshin, Carree & Sastre (2018) considered R&D collaboration between supplier and buyer firms as a means to push innovation further. In this article, Belderbos et al. expand on their previous research on persistence in strategic partnerships and utilize it to view innovative performance in R&D. They base the research on empirical analysis on Spanish technology innovation survey data. One of the aims of the research was to find out if firms that have discontinued a certain type of R&D collaboration, would be more probable to go back to this type of R&D collaboration. The result was that firms indeed are more likely than not to renew the same type of collaboration. The authors suspect it is partly explained by the fact that even if a collaborative relationship with one firm ends, the innovation benefits urge to form a new, similar one. (Belderbos et al., 2018)

2.3 Research framework

With the help of this literature review, I have revised a framework, that describes the important factors for innovation. This is partly based on the established theory, and partly based on my experience in the field of supply management in the technological sector. The framework consists of four different factors. These factors are also focused on later in the interviews. The factors are proactivity, communication, knowledge sharing and collaboration.

Figure 1. Innovation framework



3 Methodology

This chapter includes a description of utilized research methods, as well as describe the methods used to collect the data. It will also include a depiction of the data analysis used, as well as the data in itself.

3.1 Data collection

In this thesis I utilize a qualitative research method. Qualitative research method is context sensitive (Eriksson & Kovalainen, 2008), which is why I chose this approach for my research. This allowed me to look at the issues from multiple angles, and easily involve a dyadic approach. This approach was chosen to accommodate the variety of potential answers to the initial research question. It also allows the interviewees to go into detail and explain their point of view in a personal manner. Due to the nature of the research, it was more interesting to use qualitative research for the uniquely diverse data it can present. This is compared to quantitative methods, which would focus on the data instead of the potential reasons behind the data.

I study the topic by conducting semi-structured interviews on a dyadic basis. Semi-structured interview involves making a prepared outline of topics to discuss within the interview but allows for improvisation and further exploring interesting topics. (Eriksson & Kovalainen, 2008). This allows the interviews to stay on track and focus on the important issues, but also gives the interviewer a chance to dive deeper into a certain topic, if the interviewee seems to have interesting knowledge on it. In this study, interviewees are top management personnel of Finnish branches of multiple international corporations. There are interviewees both from supplier side and buyer organizations. This dyadic approach ensures less biased information and allows for better understanding of the practical reasons that lead to the benefits. This approach also allows for data on the practises of supplier firms, and their perceptions of the innovation benefits they can bring into the relationship. The research is focused solely on

long-term supplier relationships, and all the interviewees have experience on this. The interview questions can be found in appendix 1.

It is typical for qualitative data to be large and complex, and this data is to be synthesized and transformed into interpretable form (Saunders, Lewis & Thornhill, 2016, 569). The interviews for this research are conducted via either Teams meeting, or via email. To preserve anonymity, the Teams interviews have been transcribed into text form. The email interview by nature was in text form, requiring no actions. Thus, the data is presented in same form, from both Teams and email interviews, allowing for the analysis to be impartial depending on form.

The interviews were held using Finnish language, as it is the native language of all participants involved. This way the interviewees do not find themselves unable to express their thoughts and are able to explain their thoughts precisely. The interviewees were chosen by convenience sampling, meaning they were easily reachable to be interviewed (Andrade, 2021). They were chosen because they were already contacts of the author. This means that while the interviewees were conveniently sampled, this should not affect reliability significantly. Because the interviewees lived in different cities, it was natural to have the interviews remotely. The interviewees were asked for consent to be recorded prior to the interview and told that the interview will be anonymous.

There were three interviewees, two of them were interviewed from the point of view of the supplier firm, and one of them from the buyer's perspective. This was chosen, because suppliers have a good understanding of their capabilities in terms of assisting and creating value for their customers. Overall, to understand the benefits that long-term supplier relationships can bring, it is important to know the practises and point of view of the supplier firm. This also allows for a direct view on the reasons behind the benefits. One interviewee was chosen from the buyer's perspective, for dyadic approach. This was partly to keep the data as unbiased as possible, as well as to understand if there are major differences in some points between the supplier and buyer's perspective. On the other hand, the dyadic approach can also work as a confirmation to the supplier interviewees point of view.

The interviewees were all working in the technological sector. In reality this means the products they are mainly working with are, for the suppliers; technical components, that

become a part of a larger end-product. And for the buyer, this means that they purchase these technical components, and assemble their own end-products from them.

In the interview, the interviewees were first asked introductory questions about their work profile. The questions included their job title, as well as how long they had worked in the field and if they had experience with long-term supplier relations. After establishing their authority to speak on the matter, the interview moved on to questions on the practises of product development and innovation in cooperation with the other party. Finally, the interviewees were asked to describe the innovation benefits in their own words. This was to allow them to answer in a manner of their choosing, and bring out any information they might have, that did not come up in the initial interview questions. The introductory results are shown in Table 1 below.

Table 1: Interviewees and their work experience

Participant	Experience	Job title	Experience on long-term relationships
Interviewee A	25 years	Head of business and product development	Yes, as a supplier
Interviewee B	20 years	Sales engineer / Technical salesman	Yes, as a supplier
Interviewee C	20 years	Director of operations	Yes, as a buyer

3.2 Data analysis

In this thesis, the data collected by the interviews is analysed by utilizing qualitative content analysis. This is a method to analyse written, verbal, or visual communication messages (Cole, 1988). For the sake of analysing, all interviews have been transcribed to text, regardless of their origin. This analysis is conducted specifically via deducted content

analysis. This means that existing literature has been utilized, to create an accurate basis for the analysis (Saunders et al. 2016, 570). These categories have been defined prior to analysing, as is the case with deductive approach. The categories utilized can be seen on Figure 1. These categories have been partly derived from the existing literature, to reflect relevant points when it comes to innovation.

After preparing the categories, the next step for qualitative content analysis is creating a coding table. In this thesis the codes have been named after the categories. This table also includes themes that each code contains. The coding table can be seen below at Table 2. The first code proactivity includes all the data where supplier takes the first step in trying to improve the purchased product, without the customer insisting. This also includes unprompted suggestions and changes they would do. Second code, communication relates to the information flow between the supplier and customer. How, the supplier communicates their ideas and potential change suggestions. The key themes to the second and the third codes are suggesting and information. Third code, knowledge sharing, includes everything that the supplier and customer share, be it strategic knowledge of their operations, products or technology. The key themes here are information and knowledge. Fourth and last code, collaboration, includes everything that the supplier and buyer do cooperatively. This may be working on a product development together, sharing ideas that would best work for the customer. It may also work in the other direction. The key themes here are collaboration and together.

With the coding table, it is possible to focus the analysis on the pre-determined themes, which allows for the analysis to stay on track. Any data that is not relating to the coding table is considered irrelevant for this study. The background information of the interviewees serves as a confirmation of their credibility and authority on the subjects at hand.

This thesis utilizes a theoretical framework, that is based partly on previous literature. The coding used for the analysis, is based on the framework. The framework illustrates the factors, which are assumed to relate to innovation, in this study. The factors in the framework are proactivity, communication, knowledge sharing and collaboration. This theoretical framework is seen in literature review chapter, in Figure 1.

Table 2: Coding table

Code	Themes
Proactivity	Unprompted actions by the supplier in attempt to assist customer. Suggestions.
Communication	Information flow between the supplier and customer. Suggest, inform.
Knowledge sharing	Sharing of strategic knowledge. Information. Knowledge.
Collaboration	Developing product together. Collaboration. Together.

4 Findings

In this chapter, the results of the data analysis are revealed, and the coding categories are discussed one by one, along with the results relating to them. The codes that will be discussed in this chapter are proactivity, communication, knowledge sharing and collaboration. The background information will also be briefly discussed in this chapter.

4.1 Background information

The participants chosen to this study were all relatively experienced in their field. The first question was about how long they had been in the field. This was meant as a general pointer for their experience and therefore knowledge on the subject. The second question was about their job title. It is another indicator of their relation to the subject that is long-term relationships. Third background question had the interviewees explain in their own words, about their experience in long-term relationships, and an example. The first interviewee, interviewee A had 25-year experience in their field, and their current job title was the head of business and product development. When asked about their experience in long-term supplier relationships, they replied that their company has multiple long-term relations to customers, as the supplier. The second interviewee, interviewee B had nearly as much experience, with a 20-year career in the field. They worked as a technical salesman for their company. They also noted that their company has multiple long-term relationships with their customers, as the supplier. The third interviewee, interviewee C had a 20-year experience in their chosen field. They worked as a director of operations for a large company, and they had multiple long-term suppliers that they worked with. The interviewees were all experienced in their field and had experience on long-term supplier relationships, which is crucial to the data being relevant.

“I remember some customers who I have first had contact with over 20 years ago” - Interviewee B

4.2 Proactivity

In this thesis, proactivity relates to the supplier acting unprompted to attempt to improve or help the customer. This can mean giving ideas and thoughts for future products and product development, or ideas to improve the current product. The interview question was about the supplier's proclivity to proactively give innovative ideas and suggest changes to the given specifications.

In the interviews, the consensus was that in general the customer gives the supplier exact specifications for the component or product they are ordering. However, both the supplier interviewees, A and B, noted that they do actively try to find better innovations and solutions for the customer. This could be for example by offering a different solution from their existing product portfolio or trying to come up with a new solution altogether. Interviewee B noted that if the customer's specifications differ from his or his company's view on how it should be done, they will suggest alternative, hopefully better ways to go about it. They would also inform their customers when they come up with a new innovation and believe it might be of use to the customer. Interviewee A also explains that they try to apply their own innovation to improve on the specifications that the customer has initially given them. This practically means that the customer does not only have their own engineers coming up with the best ways, but also the supplier's engineers, to an extent.

Interviewee C, from a buyer perspective, recalled that they have two types of suppliers. Some of them are passive and rather wait for the exact specifications and fulfill this. Others are more active and bring their innovative ideas and notes to the table, for the customer to utilize if deemed useful. The passive suppliers might be hurtful to the innovation as a whole, as they do not attempt to help improve the customer's product. All in all, it seems that with the long-term nature of the relationship, the collaboration incentive increases, and suppliers are more eager to be proactive and try to improve the product quality of their customers.

“Some suppliers bring out their development ideas and observations actively, others wait for clear guidelines” - Interviewee C

4.3 Communication

In this thesis, communication means information flow between the supplier and buyer parties. It relates to the means and purpose of communication. The question was about how the supplier communicates potential improvements that they think should be made, as well as innovative ideas. It works as sort of a continuum to the first interview question.

Interviewee A explains that usually when something needs to be worked on and communicated that they need to change something, it means that the customer is not familiar with the concept, but instead only know what is the functionality that they want. In this case they would help the customer to design the concept further, and how the functionality could be achieved. Usually this is to do with how the component of the supplier will work with the entire finished product, and the other elements in it. Interviewee B often communicates to the customer when they have a new product that could suit the customer and informs them if he thinks something could be done in a more efficient way. Interviewee C notes that communication from their suppliers is mostly done via email, by contacting the purchasing representative for their category. This is the preferred way when something is to be changed, or suppliers have ideas or suggestions. On top of this, they regularly hold teams-meetings, as well as visitations to and from the strategic supplier companies, which continues to bring the two companies closer, and more familiar with the processes of each other.

Based on the interview replies, there are different ways to communicate, but the general reason when communicating is necessary, is the same. When suppliers find they can do something differently and possibly better, they reach out to their customer and see if they are interested. This has a clear impact on the innovation of the customer.

“If the customer has a certain functionality they seek, we can help them with creating the product concept, and how the functionality can be achieved” - Interviewee A

4.4 Knowledge sharing

Knowledge sharing means the sharing of strategic knowledge between the supplier and buyer firms. The interviewees were asked whether or not their companies are willing to share strategic knowledge with the collaborative supplier or customer, if this would assist in their product development.

Interviewee A explained that they do share some of their knowledge to the customer, because the end-product succeeding is as much their benefit as it is the customers, so they always try to give their best help. However, they try to limit the knowledge leak by giving out as much as necessary, but preferably not more. They Interviewee B was on the same page. Their approach is to put their knowledge to the best use for the customer, without revealing everything. Interviewee C, from buyer perspective noted that they prefer not sharing their strategic knowledge to their suppliers outside their global concern, due to the risk of information leaking. Overall, interviewees A and B, both from the supplier perspective, replied that their companies are absolutely willing to put their strategic knowledge to the use of the customer, as long as it does not risk their business. Interviewee C, however, from the buyers perspective, saw that their company does not prefer to share their strategic knowledge outside of their concern.

It seems that suppliers are more incentivized to share their strategic knowledge to their customer, possibly to increase their value to the customer. Meanwhile, the buyer does not share the incentive, and can withhold the knowledge. This potentially safeguards the buyer from information leakage, while puts the suppliers at a disadvantage. The fact that suppliers are willing to enter their strategic knowledge into the equation, can lead to large innovation benefits for the buyer's product development.

“We absolutely share some, at least vaguely. We don't withhold knowledge, that benefits no-one” - Interviewee B

4.5 Collaboration

Collaboration refers to the shared act of developing the product. This means the information shared, which has been covered earlier, but also bouncing ideas off each other, and working together on a project. The interviewees were asked if they work collaboratively in product development with their customers, for A and B, and with their suppliers, for C.

Interviewee C explains that their company has adopted a process, where they bring suppliers in the product development phase, and ask them about their thoughts regarding prices and functionality. He notes that the collaboration could be even deeper, though. Between the different sites in the same global concern, however, they have close product development. Interviewee B sees that their company often receives an inquiry about a certain functionality or certain specifications, and based on that they start their product development, catering exactly for that customer, granted that the volume is large enough. Interviewee A notes that their component is rarely a lone component, but instead part of a larger end-product. Their company sometimes does share product development endeavors with the customer, in the sense that both parties bring ideas on the table and develop the product together. They also offer testing for the customer, allowing the customer to speed their process.

Based on the interviews, collaboration between suppliers varies, but sharing information is a key part of the process. Sometimes the collaboration is deeper, and sometimes it is limited to sharing ideas, and functionality goals. Either way, the collaborative expertise that the supplier can offer, leads to innovative benefits for the customer.

“In the early phase, we can help our customers with the component selection process. What other components would be suitable to the end-product along with ours” - Interviewee A

4.6 Innovation

The interviewees A and B were also asked to, in their own words, describe the innovation benefits they can bring to their customers. Interviewee C was asked to describe the innovation benefits their suppliers offer them. This question was the most open ended and allowed for the interviewees to dig deep in the benefits. This led to the replies being diverse and informative.

Interviewee B saw the benefits coming mainly from the numbers. The fact that they have technical centers around the globe, and thousands of engineers employed to work on product development. This leads to them being able to come up with new, innovative ideas and in turn bring these to the customers' use. One thing that interviewee A noted, was that they can offer references, when permitted, of how their components have been utilized in the past projects. This way they can show case the attributes and functionality, and in best case this leads to the customer to envision and develop a new innovative end-product, utilizing the key attributes of the offered component. Interviewee C explained that they have received input from suppliers, in terms of what direction the product development could be steered. The way the interviewees see an innovation, is that something is done differently, to increase its functionality or effectiveness. Anything within this realm would be considered innovation benefit.

The main benefit seems to be the amount of product innovation that the buyer has at their disposal, when collaborating with the suppliers. Again, both supplier perspective interviewees emphasized their ability to come up with products that can be used by the customer. This and the fact that the suppliers can chime in on product development, and showcase their products in existing systems, can be a significant boost to the buyer organizations innovation.

“We feed the customer’s innovation through our own innovations, and help the customer understand or think about new functionalities that are possible” - Interviewee A

The interviews were different, but some themes were clearly visible. To summarize the innovation benefits available to the buyer organization, from long-term supplier relationships, we must look at these themes. When it comes to proactivity, suppliers seem to have a great incentive to offer their products and new innovations to the customers and see if they find a way to utilize them. This helps the customer's innovation and therefore makes them see the supplier as more valuable, but also brings in more money directly to the supplier, if the innovation is seen applicable. Communication was another key theme in the analysis. Based on the interviews, communication allows the suppliers to efficiently inform the customer if there are differences in their view on how product should be developed. Based on this, efficient communication can potentially increase the efficiency of product development. When it comes to knowledge sharing, there is a clear benefit to the innovation of the buyer organization. Both interviews from suppliers' perspective showed that they are willing to share strategic knowledge in the benefit of the customer. This alone brings more knowledge and information for the buyer to utilize in their product development. Lastly, collaboration between long-term partners is a key part. This is seen as either sharing knowledge, or deeper collaboration, where the product development itself is conducted together.

The most prominent factor, based on these interviews, is knowledge sharing. The largest innovation benefits to the buyer organization seem to come from the fact that suppliers have a large base of existing products and knowledge that can be utilized. This paired with the constant innovation for new products that the suppliers work on, lead to the information and knowledge at hand for the buyer organizations product development and innovation being massively inflated compared to their own resources. This is not limited to only new products. The study shows that suppliers are willing to offer their strategic knowledge to the benefit of the customers, which is significant benefit to the buyer organization's innovation. Another important factor seems to be proactivity. This leads to the buyer organization to receive innovations and information they might not even know to look for.

5 Conclusions

This thesis set out to study the innovation benefits that long-term supplier relationships can bring to the buyer organization. This phenomenon is seen as more and more important these days, when looking at supplier relations. The research question was “In what ways can long-term supplier relationship impact the innovation of the buyer organization”. This was studied by employing qualitative methods. The data was collected by conducting semi-structured interviews. The interviewees were all very experienced in their field, and in a respectable position in their company, with deep understanding of how they work. The interviews were then analyzed utilizing qualitative content analysis. This was based on a set code table, which was partly based on previous literature. These codes were proactivity, communication, knowledge sharing and collaboration. The interviews led to knowledge on all of these.

As a result of the interviews and data analysis, the most important benefit that long-term supplier relationships bring to innovation, is knowledge sharing. New innovations and strategic knowledge that the suppliers offer to the customers is a significant benefit that is hard to come by otherwise, with limited resources. In 2013, Cai, Goh, de Souza & Li came to the same conclusion in their research on supplier-buyer research, focusing on knowledge sharing. They saw that from their part, they can confirm that knowledge sharing is an important factor in determining supply-chain performance in collaborative relationships. Their study was conducted with quantitative methods. This further provides proof that this thesis is valid, and while the results are not groundbreaking, the qualitative approach brings a new point of view to the existing research.

Based on the interviews, knowledge sharing is something that the suppliers are very keen on implementing and offering to their customers. Whereas the buyer might be more reluctant to share their knowledge. This is very much in line with previous research, as shown in a study previously mentioned by Nyaga et al. (2010), where they argue that information sharing is more of an important factor for suppliers than it is for buyers. The results also suggest that the buyer does indeed receive a larger benefit than the supplier in this equation. This is also in line with the previous research on the subject (Corsten & Kumar, 2005).

It can be said that the research question was sufficiently answered. The study was able to find compelling evidence on the benefits that long-term supplier relationships can bring to

the buyer organization, as well as the reasons behind this. The main benefit was that the buyer organization receives knowledge in form of new innovations, strategic knowledge and potential help and data testing from the supplier company. The suppliers seem to be very willing to assist in this kind of way, to increase their position as an important supplier, and to continue the long-term relationship.

The implications of this study can be seen in two ways. The first is that managers in both supplier and buyer companies can focus their efforts more clearly on the information sharing area. This may also incentivize companies, who do not yet utilize long-term collaboration to its fullest potential, to make efforts to form longer-term partnerships for these benefits. For supplier companies, this study can show what is the most impactful way to assist the customer, and therefore establish value as a strategic supplier.

5.1 Reliability and validity

When conducting a qualitative research, reliability and validity are factors that need to be considered. Reliability can be seen as the repeatability and consistency of the research (Saunders et al. 2016, 202). This thesis has been presented in a way that would allow any other researcher to conduct it. While the data presented is valid, the results can differ based on the interviewees used. There are also four threats (Saunders et al. 2016, 203) that come from external factors, such as participant error, which could originate from the participant being in a rush or not taking the interview seriously. While it is a threat, the possibility of this has been considered and negated to an extent, by allowing the participants to choose a time of their liking. Participant bias is another potential threat, it stems from the participant wishing to falsify their responses. This is more typical in an open space interview, where the participant does not feel anonymous enough to respond truthfully. In the case of this thesis, this threat has been mitigated, by holding it online on teams, and anonymously. There are also threats of researcher error, which is harder to evaluate. Researcher error refers to any mistakes that the researcher makes, for example in interpretation. While it is impossible to state there have been no mistakes, sufficient working conditions have been utilized to ensure tiredness or such external factor does not affect it. Last threat is researcher bias, which could

mean the researcher allowing his own subjective view to alter the interpretation of the responses. (Saunders et al. 2016, 203)

While all the threats mentioned have been considered, and appropriate measures have been taken to mitigate the potential damage that they can cause to the reliability, it is impossible to completely disregard them. There are also potential challenges coming from the sampling. While the interviewees chosen via convenience sampling, they can be assumed to be generalized enough, as they were chosen independently, and from different parts of the country. The sample is relatively small, due to the nature of the research and the resources available, which also negatively affects the generalization. Another factor is the fact that all the interviewees were from technological sector, meaning that the results depict this potentially very accurately. This may not, however, translate to other sectors like clothing.

Validity can be understood to relate to the measures used, accuracy of the analysis and the generalizability of things. (Saunders et al. 2016, 202) The validity of the measures used is acceptable, because qualitative methods were used, utilizing semi-structured interviews and content analysis. These methods are acceptable to study the participants own points of view, and the way they see their company to work. According to Andrade (2021), research conducted by convenient sampling, has potentially high internal validity, but can lack in external validity. This is because it is difficult to generalize to the whole population. The external validity could be better if the participants were blindly chosen to better represent the population.

Lastly, because the results are based on the interviewees personal opinions, and the way their particular companies work, the results are more indicative than they are factual. This means it is likely that their answers and perspectives differ from each other, as well as the literature. However, the results were relatively in line with current research, which indicates that the results are accurate.

5.2 Future research suggestions

The subject is largely studied as it is. With the number of quantitative studies on the phenomenon at its base level, and with qualitative studies such as this thesis, there is plenty

of general data. This means that the studies could be more specific in the future. An interesting approach would be to look at different sectors, and study if there are any major differences between them. Technological sector, which this thesis was largely focused on, is vastly different to, for example, food sector. Researching the different dynamics of long-term supplier relationships between different sectors could be a valuable perspective.

Another approach that would be interesting, is to compare different supplier relationship strategies to see their differences and the benefits and potential disbenefits associated with them. This could relate to how a firm could employ a strategy of mixed relationships, to reap benefits from all strategies.

Relating to this thesis, one could do a larger scale study, interviewing personnel from multiple levels and divisions, for example product development team, as well as either the marketing team or the purchasing team depending on the approach. This would allow for more intricate data. Also, with the generalization being an issue with this thesis, the subject matter could be studied with a different sampling method.

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Appendices:

Appendix 1: Interview questions

Introduction:

- What is your job title?
- How long have you worked in this field?
- Do you deal with long-term, collaborative supplier/buyer relationships? If so, would you give an example of this?

Innovation: (Supplier)

- Would you say your company is actively trying to come up with innovative ideas for your buyers, or do you stick to blueprints?
- If your company finds room for improvement on blueprints, how do you communicate this to your buyer?
- Does your company work together on product development with buyer companies?
- Does your company share your specialized knowledge with buyer companies, in order to help their product development?
- In your own words, explain how your company adds value to your buyer's innovation and/or product development?

Innovation: (Buyer)

- Would you say your suppliers actively participate in giving you innovative ideas for components, or do they stick to agreed upon parameters.
- If your suppliers note that there are improvements to be made on blueprints, how do they communicate this to you?
- Does your company work together on product development with supplier companies?
- Does your company share your specialized knowledge with supplier companies in order to improve product development?
- In your own words, explain how your suppliers add value to your company's innovation and/or product development?