Power Asymmetry’s Influence on Supplier On-Time Delivery Performance

A Case Study at Telia Company

SUBJECT AREA: Industrial Engineering and Management
AUTHORS: Leslie Huynh & Julius Roos
SUPERVISOR: Ewout Reitsma
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Examiner: Duncan Levinsohn
Supervisor: Ewout Reitsma
Omfattning: 15 Swedish University Credits (Bachelor Programme)
Date: 2019-05-29

Address: Box 1026
Visiting Address: Gjuterigatan 5
Phone number: 036-10 10 00

551 11 Jönköping
Abstract

Purpose – The purpose with the study is to get an understanding of how a low-power retailer can incentivize their high-power supplier(s) to improve their supplier on-time delivery performance. The purpose was fulfilled by answering the two research questions:

1. How does power asymmetry influence supplier on-time delivery performance in a low-power retailer and high-power supplier context?

2. How can low-power retailers work with high-power suppliers to increase their supplier on-time delivery performance?

Method – To answer the research questions, both theoretical and empirical data was required. A literature study was conducted to gather relevant theories about on-time delivery performance and supplier relations. To get the required empirical data, a case study was conducted at a case company that suited the subject. The case study consisted of multiple interviews and document studies. This enabled for an analysis in the form of pattern matching in order to answer the research questions and thereby fulfill the purpose.

Findings – The power asymmetry between a supplier and a retailer influences the supplier on-time delivery performance in several ways. The low-power retailer can experience difficulties with setting the demands they need. Having to deal with high-power suppliers while being a low-power retailer has its challenges when a satisfying level of supplier on-time delivery performance is needed. The study found four appropriate ways for low-power retailers to work with high-power suppliers to get improved supplier on-time delivery performance. Improvement and changes can be done, these could be major and minor, internal and external.

Implications – Both practical and theoretical implications have been provided. The practical implications are that the low-power retailer needs to know their power position in the dyadic relation and act accordingly to enable for a satisfying level of supplier on-time delivery performance. The theoretical implications are that this study has filled a knowledge gap regarding improvement of supplier on-time delivery performance. The knowledge gap would be the power asymmetry subject from a low-power retailers’ perspective. Not much attention has been devoted into this subject.

Limitations – The limitation with this study was conducting a case study. The results are limited to this type of telecommunication retailing company. The case study was the choice of method as it gave a deeper understanding for the subject.

Keywords – On-time delivery performance, supplier relations, power asymmetry, dyadic relationships
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1 Introduction

This chapter brings the background to the study and describes what problem area the study was built upon. Further on, the study’s purpose and research questions are presented. In addition, the scope and boundaries of the study are described. Information regarding power asymmetry and on-time delivery performance will be presented in this chapter.

1.1 Background

As globalization and outsourcing becomes a more viable and affordable option in the modern days, it has also introduced to an increased network of suppliers for organizations. Being able to offer a wider assortment fulfills the customer needs and commonly more suppliers are involved. When the number of suppliers increases, the challenge arises where corporations must achieve more long-term stable relationships with the suppliers, in order to keep a sustainable competitive advantage (Kazmer, 2014). Another large issue companies need to handle is the complexity from the supplier network and how to keep track of the performance across the supply chain (Amer, Luong, & Lee, 2010). Not only is it important to develop and improve the external supply chains, pressure for development also comes from the stakeholders’ side. This pressure must be satisfied and fulfilled in order to not fall behind competitors (Reuter, Foerstl, Hartmann & Blome, 2010). When including suppliers in development and improvements, a relationship is formed. This kind of relationship is of importance for organizations to stay ahead in today’s competitive market (Kowang, Fei, Long, Rasli & Hee, 2017). A two-sided relationship between supplier and buyer is referred to as a dyadic relationship. Forming relationships with suppliers can contribute to indulgence, trust and innovation (Michalski, Montes & Narasimhan, 2019). Dyadic relationships where one actor is underpowered is called power asymmetry which can result in the high-power supplier taking over in the relation, giving less space for the low-power retailer to set demands (Nyaga, Lynch, Marshall & Ambrose, 2013). The high-power company in these cases are the ones with higher reputation and expertise. If they share the same intention for collaboration, there will be a significant win-win situation (Wagner, Eggert & Lindemann, 2009). Power positions need to be constantly re-evaluated since the power balance in a dyadic relationship is dynamic (Rehme, Nodrigården, Ellström & Chicksand, 2015). Some scholars argue that power-advantaged firms are less likely to develop long-term orientation because they always obtain their own interests through exercising their power over the weaker counterpart (Ryu, Park & Min, 2007).

Meeting the needs of the customers is crucial for companies to sustain and be competitive (Kibbeling, Van Der Bij & Van Weele, 2013). Competition increased in the 1990s with the challenge of delivering products in time at lowest costs, with shortened lead times. Therefore, supply chain and transportation planning are crucial to be long-term profitable and sustainable (Brown, Dant, Ingene & Kaufmann, 2005; Li, Rao, Ragu-Nathan, Ragu-Nathan, 2005; Yang, Zhang & Liu, 2017). For companies to offer short lead time for their customers, their suppliers must provide a high level of delivery performance for this to happen (Bhattacharyya & Guiffrida, 2014).

Levy, Weitz and Grewal (2013) describe retail business to focus on inventory management. Low-power retailers need to use the high-power partner as leverage to gain reputation and quality to customers and to stay competitive (Michalski et al. 2019). Brooks (2005) discusses how meaningful KPIs gives managers a better chance to optimize business performance and provide a basis for marketing. On-time delivery is one of the three most important factors in performance measurements (Gunasekaran, Patel & McGaughey, 2004).

1.2 Problem Formulation

On-time delivery performance is an important KPI for companies. Low supplier on-time delivery performance causes major problems in the planning and inventory management for retailers (Gunasekaran et al. 2004; Forslund & Jonsson, 2010). Variance in supply chain lead times has negative effects on the financial performance of the organization (Christensen, Germain & Birou, 2007). The bullwhip effect is an amplification of previous action in a supply chain, which amplifies effects for the upcoming events in supply chains. When suppliers miss their delivery timeframe, it will affect the suppliers’ inventory level and cause a bullwhip effect for the upcoming supply chain with uncertainties (Hung, Ro & Liker, 2009). Wang, Liu, and Guo (2011) discuss that when suppliers scores low supplier delivery performance with especially on-time deliveries, the results from this affects the supply chain downstream when the processes cannot be planned or forecasted to achieve maximum efficiency. Weele
(2014) states that only a portion of the logistics problem can be associated to the supplier since if the buyer has insufficient material planning and changes the orders too often, this lack of predictability becomes a nightmare for the supplier who will struggle with on-time deliveries. Nyaga et al. (2013) explain how many actors in buyer-supplier relations are not aware of the power dependency or asymmetry, which makes it easy for the low-power buyer to automatically believe that the more dominant party must set obligations. Cox (2004) and Rehme et al. (2015) emphasize that low-power buyers must understand their position and obligations in buyer-supplier relationships to get a more efficient partnership. While companies aim to achieve high on-time delivery performance, this becomes a difficulty for low-power companies. Nyaga et al. (2013) explain that the high-power companies do not need to act upon these requests. Earlier research has covered how power asymmetric relations are hard to measure and control in manufacturing and food companies (Michalski et al. 2019). Michalski et al. (2019) discuss how further research is needed in multi-firm and from new focus areas. Retailers have shown to be dependent on suppliers to manage inventory levels. Given this, there is a need to investigate how low power retailers can work with high power suppliers to achieve high supplier on-time delivery performance.

1.3 Purpose and Research Questions

Theory has shed light on the need of retailers collaborating with their suppliers to achieve high on-time delivery performance, with the aim to manage their inventory levels (Michalski et al. 2019). High on-time delivery performance can be achieved through requirements from retailers to suppliers to deliver on time. It is found that companies need an acceptable level of their supplier on-time delivery performance to manage inventories (Wang et al. 2011). In the problem formulation, it was shown that high-power suppliers do not usually act on low-power retailer requests to deliver on time (Nyaga et al. 2013). Further research is needed on how low-power retailers can incentivize high-power suppliers to deliver on time (Michalski et al. 2019). Retailers are of interest for this study since they have the characteristics of using inventory management to create value which demands reliable on-time delivery performance (Levy et al. 2013). From this information it is interesting to study how a low-power retailer can incentivize high-power suppliers. The purpose of this thesis is:

*To get an understanding of how a low-power retailer can incentivize their high-power supplier(s) to improve their supplier on-time delivery performance.*

In order to fulfill the purpose, two separate research questions have been formulated. Research has shown the problematics with power asymmetry in retailer-supplier relations which has limited the low-power retailer to set demands when the supplier is of higher power. One of the demands that is of importance for the low-power retailer is on-time delivery performance. To be able to know how to incentivize high power suppliers to improve supplier on-time delivery performance, it must first be identified how the power asymmetry influences the supplier on-time delivery performance. Thereby, the first research question (RQ1) is:

1. How does power asymmetry influence supplier on-time delivery performance in a low-power retailer and high-power supplier context?

As stated in the problem formulation, many actors in supply chains aren’t aware of their obligations or position and power asymmetry naturally occurs. Once the low-power retailer understands their position, they must also understand their obligations to have an impact on the power and be able to work with high-power suppliers to achieve improved supplier on-time delivery performance. Therefore, the second research question (RQ2) follows as:

2. How can low-power retailers work with high-power suppliers to improve their supplier on-time delivery performance?

1.4 Delimitations

Delivery performance has more aspects related to it such as quality. This study will however only consider the on-time aspect of delivery performance. This helps to contribute with deeper and more focused knowledge. A recent study by Michalski et al. (2019) mentions how research on power asymmetry in manufacturing and food business has already been conducted from the perspective of a supplier. There are several types of actors in typical supply chains. The perspective and focus area in this study will be from a low-power retailer working with high-power suppliers, where the high-power suppliers have poor supplier on-time delivery performance. The focus area is illustrated down below in
Figure 1, visualizing how the high-power supplier provides products for the low-power retailer. These deliveries need to be on-time when the retailers in turn has promised the customer a delivery date and need to have optimal inventory levels for this matter. The scope of this study is the relation of a low-power retailer with high-power suppliers, from the perspective of the low-power retailer.

Figure 1 The scope of the study

1.5 Outline

Background: This chapter brings the background to the study and describes what problem area the study was built upon. Further on, the study’s purpose and research questions are presented. In addition, the scope and boundaries of the study are described. Information regarding power asymmetry and on-time delivery performance will be presented in this chapter.

Theoretical Framework: This chapter gives a theoretical basis for the subject and an explanation approach to the study and the research questions that have been formulated.

Research Methodology: In this section of the report, the methods that were used to conduct this research will be presented. Tools of the methodologies will be explained to give the reader a good understanding.

Empirical data: The chapter gives a holistic description of the case company. Furthermore, the empirical data that was collected to help answer the research questions is described.

Analysis: This chapter connects the empirical data and theoretical framework with an analysis of outcome.

Discussions & Conclusions: The chapter gives a summary for the results of the study. The implications and limitations are then further described. Moreover, the study’s conclusions and recommendations are described. Lastly, proposals for further research is made.
2 Theoretical Framework

This chapter gives a theoretical basis for the subject and an explanation approach to the study and the research questions that have been formulated.

2.1 Connections Between Research Questions and Theory

In this chapter, the theoretical basis that should help answer the research questions of the study is presented. Both research question 1 (RQ1) and research question 2 (RQ2) aims to investigate the connections of power asymmetry and on-time delivery performance. Theories and concepts will be clarified and explained in this chapter. Firstly, by explaining important aspects relevant to on-time delivery performance and its subevents. On-time delivery performance has been studied to provide a deeper understanding about how it can be managed, and issues related to it. Supplier relations is studied in order to get an understanding of different types of factors that influences the relationship between a retailer and a supplier. The two subjects of on-time delivery performance and supplier relationships are broad subjects. The intersection of the two subjects will be the main focus area as illustrated in Figure 2. The focus area also goes outside the intersection of the two subjects as some literature answers more on one RQ than another.

![Diagram](image)

Figure 2 Connections between research questions and theory.

2.2 On-Time Delivery Performance and Supplier Relationship

2.2.1 Performance Management and Measurement

Performance is a widely used word. An explanation will be given here on how it should be perceived relating to on-time delivery performance. Performance is here defined by Lebas (1995) as the potential
for forthcoming successful implementation of actions in order to reach the objectives and targets. Furthermore, performance management shapes the context as well as the measures of performance. Managers should be able to answer the questions regarding why we want to measure and what do we want to measure (Lebas, 1995). Control of the supply chain processes is crucial and can be achieved partly through measurement. Performance measurements and metrics affects the strategic, tactical, and operational planning as well as the control. Performance measurements and metrics also plays an important role in setting objectives, evaluating performance and deciding how to take action in the future (Gunasekaran et al. 2004). Performance measurement is closely related to performance management. The difference between the two concepts is that performance management creates a context for performance measurement. For an effective performance management, it is of high importance to have an efficient performance measurement system (Bititci, Carrie, & Mcdevitt, 1997; Lebas, 1995). There is a presence of obstacles that can hinder gathering data for performance measurement, as the common method is to manually collect data, register data and generate a report (Bourne, Mills, Wilcox, Nelly & Platts 2000; Forslund & Jonsson, 2010).

2.2.2 On-time Delivery Performance

Delivery performance is perceived as a supply chain performance measure on a strategic level (Forslund, Jonsson & Mattsson, 2008; Gunasekaran, Patel, & Tirtiroglu, 2001). There are several names for measurements regarding delivery performance such as delivery precision, delivery reliability, supplier fill rate and delivery dependability. In this study, delivery performance will be chosen as it was shown to cover all those aspects and was greatly more represented in the literature with more relevant hits.

Hung et al. (2009) emphasizes on effective communication to manage inventory levels. When inventory management cannot be planned due to variations in delivery performance, an amplification in difficulties for the planning processes occurs in the internal supply chain. To improve the customer service level in the supply chain, organizations need to work and communicate in the same way. One of the delivery service metrics that needs to have a shared defining is on-time delivery performance (Griffis, Cooper, Goldsby & Closs, 2004). There are several issues regarding the defining of on-time delivery performance. Firstly, there is an issue with the measurement object. If it is defined as the number of orders, order lines or individual items. The second concerns which time unit that should be used. The time units could be hour, days, weeks or a set time window, which is later going to be explained as a delivery window. The measurement point is the third issue. This aspect deals with which part in the supply chain the delivery should be executed. The fourth issue is about the comparison date for an actual delivery date to see if it is on time (Forslund & Jonsson, 2010).

Pagell and Sheu (2001) study and discuss the buyer (retailer) behaviors effects on supplier delivery performance in a supply chain environment context. In their study, buyer behavior induces the level of uncertainty perceived by the supplier which affects the supplier’s delivery performance to the buyer. It is stated from their results how buyer’s behavior that do not have effect on their own performance can have a high impact on the supplier’s performance. This is considered as a problem since the buyer can get a false picture of the supplier harming the buyer’s performance, when the flaw is on the buyer’s side. The results varied in different parts of the world. An example is the region of Europe where the supplier delivery performance was low and at the same time, Europe were the region that outsourced the most. It is stated that since the results varied by the regions of the world, any theory that connects buyer behavior to supplier delivery performance needs to look at a specific geographic area (Pagell & Sheu, 2001).

2.2.3 Delivery Windows

Delivery windows display the time in within where the buyer can receive the delivery from the supplier and where the delivery is counted as on-time. The buyer and supplier together specify the allowed deviations in a contract, regarding what is early, on-time and late deliveries from a negotiated and agreed upon delivery date. The on-time part of the delivery window is defined as between the earliest acceptable delivery date and the latest acceptable delivery date. If the delivery is not in the on-time interval, a penalty cost should be incurred for the supplier (Bushuev, 2018). Research suggests that the use of delivery windows can be effective for inducing supplier variance reduction. However, it may not necessarily result in more timely deliveries with less supplier inventory (Grout, 1998).

2.2.4 Lead Time

Lead time is defined as the length of time between when an order for an item is placed and when it is actually available for satisfying customer demands. In most cases it consists of the components of order preparation, order transit to the supplier, supplier lead time (defined as the time that lapses between
when an order is received by a supplier and the shipment of the items), items transit time from the supplier, and preparation time for availability (Liao & Shyu, 1991). Strategies for lead time reduction are responses to various logistical chain problems in the areas of procurement, manufacturing and distribution (Tersine & Hummingbird, 1995).

2.2.5 Dyadic Relationship and Attractiveness

Dyadic relationships consist of two parties in a relationship. A unique dyadic relation is buyer-supplier relationship. These types of relations in the retail business are very complex. With the dyadic relation, they both have a direct and indirect connection with power asymmetry (McCartor & Northcraft, 2007). In such dyadic relationship, both the buyer and supplier aim to use each other as leverage to increase their competitive advantage. In order to build a competitive advantage with dyadic relationships, both parties must equally understand their value and establish a balanced effort in the relationship. In the interest of the supplier or buyer to build a relationship, they must shape their attractiveness to make the other party offer the same amount of effort (Tanskanen, Aminoff, 2015).

Tanskanen and Aminoff (2015) have identified four categories for buyer-supplier attractiveness: economic based, behavior based, resource based and bridging based attractiveness. Their study also shows how economic- and behavior-based attractiveness had a strong impact on relationships. Resource- and bridging based attractiveness was more in focus for companies when it is of interest to have competitive leverage (Tanskanen & Aminoff, 2015).

2.2.6 Relationship Marketing

Morgan and Hunt (1994) discuss the activities to establish a bond between relations, that is a combination of all marketing activities that creates value in the relation exchange. Agnihotri, Rapp and Trainor (2009) discuss the increased development and greater emphasis on these relation exchanges. In relationship marketing, effective communication flow can strengthen relationships by resolving disputes, aligning objectives and bring the partners closer (Palmatier & Grewal, 2006; Morgan & Hunt, 1994). Communication in buyer-supplier relations are especially important when the buyer distributes the product further. One indirect effect is where a salesperson (in this case, the retailer in the buyer-supplier relationship) must have sufficient knowledge about the products in order to assist customers. This indirect effect resulted in a positive customer satisfaction because the communication link between salesperson to supplier was acknowledged (Agnihotri, Rapp & Trainor, 2009).

2.2.7 Power Asymmetry

Maloni and Benton (2000) characterize power into two bases, coercive and non-coercive. Power in distribution and supply chain context is defined by El-Ansary and Stern (1972) as his ability to control his decision variables in the marketing strategy of another member in a given channel at a different level of distribution.

Coercive is the result of an imbalance of power between companies, while non-coercive is the result when such power is more balanced and emerges from expert, legal, referent, reward and traditional aspects (Maloni & Benton, 2000). With coercive relations, high-power companies may use their power to advantage and pressure their partner to perform tasks that the low-power company would not perform otherwise (Nyaga et al. 2013). This coercive result can be defined as power asymmetry. Power asymmetry occurs when there’s a power imbalance in a relationship, in this study, supplier-buyer relation. Cox (2004) argues that power asymmetry is inevitable in any form of relation, either coercive or non-coercive. When such asymmetry occurs, the high-power company tend to take over an integration, giving less space for low-power companies to set demands, creating a likelihood for unstable and short-term relation investment. Companies with higher reputation and more expertise within a field is generally the high-power company and can therefore set more demands (Nyaga et al. 2013).

Companies that share the same intention for collaborations and relationships can see the result of a significant win-win situation. The bigger the power difference is, the more power imbalance there is. The larger the gap of power there is, the more stress it will put on the relationship (Wagner et al. 2009; Ryu et al. 2007). Habib, Bastl and Pilbeam (2015) identifies five strategic options the weaker actor could use to leveraging the imbalance. The strategic options are collaboration, compromise, diversification, coalition and exit. This is also strengthened by Michalski, Montes and Narasimhan (2018) who states that collaboration and integration among actors in a supply chain could change the role of power
asymmetry from hindering performance to instead improving performance. Furthermore, it is also stated that collaboration is the best way to improve performance in asymmetric relations.

To summarize, related to the theory of on-time delivery performance, there are several factors that contributes to a holistic view of the subject. Theories about these factors were described for further and deeper understanding. To understand further what effects and issues related to supplier on-time delivery performance, knowledge was presented about supplier relations and how it affects behavior and influences decisions made in dyadic relationships. With the supplier on-time delivery performance being seen as a highly important factor for the buyer, theory on supplier relations needed to be investigated since the on-time delivery performance can be hindered when the supplier relation is not at a satisfactory level. The literature review also found strategic options for a low-power retailer to influence the high-power supplier to collaborate more
3 Research Methodology

In this section of the report, the methods that were used to conduct this research will be presented. Tools of the methodologies will be explained to give the reader a good understanding.

3.1 Connections Between Research Questions and Methods

Further research is suggested in power asymmetry from a low-power retailer perspective. This study aimed to fill this research gap. It was done by trying to fulfill the purpose which is to get an understanding of how a low-power retailer can incentivize their high-power supplier(s) to improve their supplier on-time delivery performance. To answer the purpose, a qualitative research has been conducted.

To answer both RQ1 and RQ2, interviews, document studies and literature studies have been conducted to collect data. The interviews were done towards the purchasing department and the sourcing department at the case company as they handle supplier relationships and the procurement for the company. The document studies were analyzed to understand the processes and to compare it to the empirical data from the interviews. Literature studies was carried out to find previous research and to gain deeper understanding of the subject and to create a theoretical framework for the report. Figure 3 presents the connections between the research questions and the methods used to conduct answers to them.

Figure 3 Connections between research questions and methods.

3.2 Research Philosophy

The study used a subjective perspective which according to Saunders, Lewis and Thornhill (2019) entails nominalist ontology, meaning that social reality comes from the perceptions and consequent actions of people. The interviewees of the study are the social actors. Epistemology focuses on the social actors’ interpretations, opinions and perceptions that bring social realities (Saunders et al. 2019). This study used interpretivist research, which is a subjectivist philosophy. It has the purpose to create new, richer understandings and interpretations (Saunders, Lewis & Thornhill, 2009). To support this, the study looked at an organization from multiple perspectives by investigating purchasers and sourcing managers which is in line with interpretive research (Saunders et al. 2009).
3.3 Work Process

The research took place between January to May in 2019. To try to make it easier for the reader to understand the work process of this study, it has been divided into five parts. Problem formulation, literature study, case study, analysis and report writing. This is shown below in Figure 4.

![Figure 4 Work process and planning.](image)

The first base was to find both a theoretical framework as well as finding a problem formulation by the beginning of March, perform a case study and begin with the analysis at the beginning of April. During the whole time, focus was also set on writing the report. The phase of literature study contributed with deep knowledge for the subject of on-time delivery performance and supplier relationships. This knowledge set a base for the purpose and research questions and also interview questions. To get empirical data, a case study was conducted. An analysis was then executed to understand the results from the literature study and the empirical data and give answers to the research questions.

3.4 Research Approach

The aim with the study is to from a low-power retailer's perspective, get an understanding of how a low-power retailer can incentivize their high-power supplier(s) to improve their perceived supplier on-time delivery performance, which is a qualitatively formed purpose. This means “soft” data was required which is referred to as qualitative oriented research (Patel & Davidson, 2011). To be able to fulfill the purpose, two qualitative research questions were formulated. To be able to answer the questions, a case study was conducted to get empirical data. Data triangulation was used with the interviews and document studies in order to validate the results. What is meant by triangulation is that the researcher validates findings by choosing different kinds of data sources (Patel & Davidson, 2011). Triangulation has not only been applied in the study in form of using both document studies and interviews but also with several employees in the organization who have different perspectives and positions in the company (Patel & Davidson, 2011).

The study was conducted on a single case company and empirical data was collected to formulate theories. This is inductive research (Patel & Davidsson 2011). According to Patel and Davidsson (2011) this approach was suitable as the authors could explore the subject that could be formulated into a theory.

3.5 Research Strategy

This study was conducted in the form of a single case study to complement a fixed design to explore the knowledge gap in an already known area for power asymmetry in the retailing business. A case study can according to Yin (2007) be described as an empirical study that investigates something in detail, in its real context in which several data sources are used. As the study seek to get further and deeper understanding of the topic, it then became natural to use the described case study method. The selection of research method is mainly dependent on what type of research questions are formulated (Yin, 2007). As the research questions are asking “how”, it was suitable to use a single case study according to Lundahl and Skärvad (2016).
The single case study was performed on a telecommunication retail company. This was to niche further in the retail business category with a low-power retailer and high-power supplier. There were more companies to choose from. However, the selected telecommunication retailer met all the case company requirements and was therefore chosen. The three requirements that had to be met is illustrated in Table 1. This case company was investigated through semi structured interviews to focus groups via purposive sampling. Purposive sampling was used because according to Saunders et al. (2009) it is suitable when working with small samples as in case study and when informative cases are selected. Purchasers were chosen as the main analysis unit along with one sourcing manager and a logistics and process manager. This because they are the ones who work continuously with the suppliers and are expected to have the most knowledge about them and the processes connected to it. In this study, the purchasers can provide large amount of data in a short time and can represent a larger sample population (Williamson, 2002). According to Yin (2007), case studies gives a holistic view to facilitate data collection in a limited given time period.

Table 1 Case company criteria.

<table>
<thead>
<tr>
<th>Case Company Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>● A telecommunication retailer</td>
</tr>
<tr>
<td>● The low-power actor in the supply chain</td>
</tr>
<tr>
<td>● Unsatisfied with supplier on-time delivery performance</td>
</tr>
</tbody>
</table>

3.6 Literature Study
A literature study was conducted to get better knowledge about the area and to form a theoretical framework, all with the regards of supplier on-time delivery performance and supplier relationships. To get better knowledge and understanding of the subject, a holistic information search was conducted. This to better specify the purpose and what keywords to search for. According to Patel and Davidson (2011) this is a recommended course of action in the literature study. The literature study was performed with the help from the university library in Jönköping which gave access to Scopus which is a recommended database for acquiring relevant literature from scientific journals (Patel & Davidson, 2011). The searches in the database were done with Boolean logic (“”, AND, OR, and NOT). This was because Boolean logic helps to narrow down searches significantly to specific search concepts (Oliver, 2012).

When knowledge and understanding of the subject was gathered, the next phase in the literature study was initiated as important keywords for the study were found. In Table 2 down below, it is shown which keywords and keyword combinations that were used, which actual database that was used and how many hits the search words gave with a specific filter. These keywords were used as it was of main interest in this study. Further relevant literature was also found by looking at the sources in studied scientific reports. This was to find more relevant theory quickly. This method of snowballing means that the authors have used previous research as a base, then investigated the references used in those research articles (Atkinson & Flint, 2004). The articles for the theories were in the end chosen based on their relevance to supplier relations and on-time delivery performance. Oliver (2012) states that inclusion criteria for the literature study is needed. The inclusion criteria used was that the literature needed to be peer reviewed, in English and from the 21st century. A few theoretical sources were made with exceptions where the literature was found from looking at the sources from other scientific reports.
Table 2 Keywords, combinations and hits in the literature study.

<table>
<thead>
<tr>
<th>Area</th>
<th>Search words and search combinations</th>
<th>Hits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery performance</td>
<td>“Performance measurement” AND “performance management” AND delivery</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>“On-time delivery performance” OR “On time delivery performance”</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>“Delivery windows”</td>
<td>42</td>
</tr>
<tr>
<td>Supplier relationships</td>
<td>“supplier integration” AND relation</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>&quot;dyadic relationship&quot; AND &quot;dyad&quot; AND &quot;performance&quot;</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>&quot;relationship marketing&quot; &quot;supplier performance&quot;</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>&quot;power asymmetry&quot; AND “supplier”</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>“supply chain” AND “power asymmetry”</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>“supply chain” AND “power asymmetry” AND dyad</td>
<td>5</td>
</tr>
</tbody>
</table>

To find suitable theories, books and conference papers have been carefully avoided unless needed. The exceptions for these avoided sources was if research from a highly ranked report supported the message purveyed. It was a way to try to keep the quality of the literature sample at a high level.

3.7 Data Collection

The data collection of the study consisted of literature studies and empirical data from the case company. Having multiple interviews gave various perspectives and are preferred when collecting qualitative data (Patel & Davidson, 2011).

3.7.1 Interviews

The interviews were used as the main information source for the study. This was because interviews can give detailed answers on uncertainties (Yin, 2007). The interviews were requested by mail. The first interview was conducted with the Logistics and Process Manager at the case company to get an introduction to the case company. This helped to get a base understanding of the company and it was performed in conversational form which is the interview method that is the most open way of interviewing (Patel & Davidson, 2011). The interviews were in total conducted with five different respondents with different positions at the case company. This was to ensure that the answers would come from different perspectives. The respondents were chosen based on their position they had in the company to ensure relevant information would be received. An interview guide was formed to be able to carry out semi-structured interviews with low level of standardization. This was to get the respondents to talk more freely about the topic and thereby get new and deeper insights that could help answer the research questions (Patel & Davidson, 2011). Furthermore, leading questions were avoided in the interviews as this can have a negative impact on the results (Yin, 2007). The questions in the interview guide was not sent to the case company before the interviews. This is because the interviewees can gather together to manipulate the answers if they already know the questions that will be asked (Yin, 2007). The whole purpose with the interviews was to get an insight in how the company and the employees work with suppliers and also how they try to manage and control their suppliers and their on-time delivery performance.

The conducted interviews are presented down below in Table 3. The interview guide is attached in the appendix of the report as Appendix 1.
Table 3 Conducted interviews.

<table>
<thead>
<tr>
<th>Date</th>
<th>Purpose</th>
<th>Role</th>
<th>Method</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-03-11</td>
<td>Acquire relevant basic information</td>
<td>Logistics &amp; Process Manager</td>
<td>Conversational form</td>
<td>3h</td>
</tr>
<tr>
<td>2019-04-29</td>
<td>Acquire interpretations of relationships and on-time delivery</td>
<td>Head of Operations</td>
<td>Semi-Structured</td>
<td>45min</td>
</tr>
<tr>
<td>2019-04-29</td>
<td>Acquire interpretations of relationships and on-time delivery</td>
<td>Purchase Planner 1</td>
<td>Semi-Structured</td>
<td>45min</td>
</tr>
<tr>
<td>2019-04-29</td>
<td>Acquire interpretations of relationships and on-time delivery</td>
<td>Purchase Planner 2</td>
<td>Semi-Structured</td>
<td>45min</td>
</tr>
<tr>
<td>2019-04-29</td>
<td>Acquire interpretations of relationships and on-time delivery</td>
<td>Purchase Planner 3</td>
<td>Semi-Structured</td>
<td>45min</td>
</tr>
<tr>
<td>2019-04-29</td>
<td>Acquire interpretations of relationships and on-time delivery</td>
<td>Category Head of Supply Chain (Sourcing)</td>
<td>Semi-Structured</td>
<td>30min</td>
</tr>
</tbody>
</table>

The interviews were conducted by both the authors and the questions from the interview guide was used along with supplementary questions and clarifying questions that occurred during the interview sessions. The interviews were documented in the form of recording.

3.7.2 Document studies
Documents with data relevant for the study was requested and received from the case company. The documents were needed to see how the company handle and measure their supplier on-time delivery performance. Historical data regarding supplier performance was obtained and gave a better holistic picture of how the case company perceived their supplier on-time delivery performance. The historical data was obtained from the ERP-system CDPPT (Common Demand and Purchase Planning Tool) and from the other ERP-system Oracle 1b. Documents about how the case company sets demands and how they give delivery instructions were also requested and received. This was to get further insight and understanding. This is illustrated in Table 4 down below. To help answer the research questions of the study, the documents were studied together with relevant theories.

Table 4 Conducted document studies.

<table>
<thead>
<tr>
<th>Date</th>
<th>Document type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-03-11</td>
<td>CDPPT inbound report</td>
</tr>
<tr>
<td>2019-03-11</td>
<td>Oracle 1B Delivery performance 2018 report</td>
</tr>
<tr>
<td>2019-04-25</td>
<td>Delivery instructions Telia central warehouse</td>
</tr>
</tbody>
</table>

3.8 Data analysis
Analyses was made continuously throughout the work and this was because it can help to guide how the study should continue. But it can also be discovered during the analysis that something was not yet thought of or the questions are not perceived as planned (Patel & Davidson, 2011). Miles and Huberman
(1994) discuss that researchers argue, interpret and understand concepts differently. To minimize this problem, both interviewees were present at the interviews, and an analysis from two perspectives on the answers and concepts was made since it creates the deeper understanding (Miles & Huberman, 1994). During each interview, notes were written down and a short analysis after the interviews were done to create a mutual understanding from the results. These short analyses were done after the interviews as the data and interpretation was still fresh, as this is of importance according to Patel and Davidson (2011). The interviews were later fully transcribed. When analyzing the transcribed interviews, the answers from the respondents were categorized and analyzed to see if the answers matched with the theory. This is according to Yin (2007) called pattern matching and strengthens the results.

3.9 Research Quality

3.9.1 Reliability
The goal with reliability is according to Yin (2007) to make sure that if another researcher is conducting the same study, the same results and conclusions should be achieved. The collected data and the procedure of the study has been documented. This has been a way of trying to achieve reliability. An interview guide was used in the interviews which increases the reliability. Furthermore, the interviews were recorded and transcribed. In addition to this, notes were taken during the interviews as well. The document study is presented and described. The same procedure was made with the literature study. A case company requirement was conducted as well (see Table 1) to find a suitable case company. Having such case company criteria aimed to help strengthening the results of this study.

3.9.2 Validity
Patel and Davidson (2011) describes validity by as if the authors actually investigate what they intend to investigate. This was partly ensured by continuous controls throughout the study by seminars and oppositions. Validity is also achieved if the research results really depends on the events that is stated by the researchers (Yin, 2007). This was ensured as pattern matching was used for the analysis of data. As this study was conducted via a single case study, the results will be more focused to the case company. The way the research was conducted using only a single case company shifts into external validity where theory is used in the specific case company (Yin, 2007).

Both primary data collection and secondary data collection was conducted. The primary data was collected in the form of semi-structured interviews, and the secondary data was collected with documents from the case company. Furthermore, triangulation was used which gives the study validity (Yin, 2007). The possibility of unreliable data that comes from someone who has had the possibility to manipulate the data (Yin, 2007). Therefore, this information has been analyzed and triangulated with multiple sources before used. The data from the interviews and document studies were analyzed and to confirm the data results. Theories and references have been carefully studied upon in this report, where the Academic Journal guide from Chartered Association of Business Schools (2019) has been used to get an indication that the sources have been published in well-known and high ranked journals to keep high validity.
4 Empirical Findings

The chapter gives a holistic description of the case company. Furthermore, the empirical data that was collected to help answer the research questions is described.

4.1 Case Company Description

Telia Company (hereby referred to as Telia) is an international telecommunication company in Sweden that was founded in 2002 under the name Telia Sonera as a result of a merger. They are a low-power retailer that works with high-power suppliers on a daily basis. In the beginning of their history from 2002, the company operated with both telephones and network. In 2017, Telia had almost 24,500 employees with a revenue of 82 MSEK in sales. Today, Telia has become the leading mobile operator with the largest market share in Sweden. They provide IP capacity, mobile voice and data, TV and media, fixed voice and data, ICT services and physical products. The physical products are phones, tablets, television, accessories and broadband. Not only are they leading in Sweden but has also transformed from a domestic company into a global operation where they operate in nine countries.

One of their ambitions is to have the most loyal and satisfied customers in their markets. However, with increased network of suppliers, the complexity increases, and they are perceiving a low level of their high-power suppliers’ on-time delivery performance. This leads to uncertainty in their purchase planning, optimizing of inventory levels, safety stock dimensioning and difficulties with fulfilling customer promises.

From a conversational interview with the Logistics and Process Manager, the full process from needed purchase to delivery out to their customer or retail stores was mapped. The Logistics and Process Manager illustrated the process of purchasing. This illustration is shown in Figure 5 down below. The purchasing starts with a need for procurement and continues over to sending an order request to suppliers. From that order request until delivery to Telia’s warehouse is where the scope is set on.

![Figure 5](image)

*Figure 5* The process of purchasing at Telia. The focus area of the study is highlighted in the circle.
4.2 The Process of Working with Supplier On-Time Delivery Performance at Telia.

This part of the chapter will summarize the empirical data collected from the interviews. The subjects in focus are supplier on-time delivery performance and supplier relationships.

4.2.1 Interviews

The interviews at Telia were conducted with Purchase Planners, a Logistics Operation Manager and a Sourcing Manager. From these interviews, it was shown that none of them were actively working with measuring supplier on-time delivery performance and thought that it was not prioritized. The concept did not have any focus in the working tasks of the interviewees. No one would be directly responsible of the evaluation of this performance measurement. However, discussions regarding if Telia would be actively working with measuring supplier on-time delivery performance were done. The results from this discussion states that it would be set as a goal for the purchasing team, where all purchasers would have individual responsibility to follow up on these measurements. The purchasers also believed that this could be driven by the sourcing department to follow up globally.

One reason to why Telia want to improve their supplier on-time delivery performance is because the organization want improvement in this area. The purchasers are being affected by supplier on-time delivery performance, which affects inventory management and the ability to fulfill promises towards customers. Telia want to provide products to their customers in promised time. Two purchasers mentioned the difficulty with when to place an order, when there would be uncertainty with the lead time from their suppliers. The sourcing managers follows up on how well the deliveries have been fulfilled. Both the purchasers and the sourcing manager could agree that the customer satisfaction is the priority in this essence. Discussions also carried onto how there would be no reliable statistic on the suppliers on-time delivery performance. With no such reliable statistics, no reliable trend could help Telia signal on bad performing suppliers. According to the interviews, it would be easier to improve the on-time delivery performance when trends are recognized between Telia and the supplier.

Getting insights in how the contracts were formulated were of interest but could not be overlooked as they contain sensitive information. The interviewees would instead explain that supplier on-time delivery performance is not specified in the contracts. Instead of supplier on-time deliveries, lead time were stated in the contracts. It was found that the contracts were not used as leverage for improvements, since there is no standardized way to evaluate why products are not on-time. Another issue according to the interviews were the different definitions on time. Most suppliers were talking about delivering in weeks, while Telia defined it as days. Another time defining that merged from the interviews there how Telia outsourced their warehouse to a third-party logistics (TPL) company. This meant that the suppliers were restricted to deliver on time to the warehouse to daytime opening hours only. This is illustrated in Figure 6. From this outsourced warehouse, Telia owns the products only, while the TPL company owns everything else.
Figure 6 Holistic mapping on deliveries of products from suppliers to Telia/customers.

Telia wanted to measure supplier on-time delivery from either the desired delivery date or the agreed date with the supplier. The purchasers continued to discuss that this did not always work as they want, which could be problematic in terms of defining on-time deliveries. There would be no consequences to the suppliers if they could not delivery on-time. The interviewees discuss when suppliers would miss on-time deliveries frequently, it would lead to unreliability, increased inventory levels, costs and in the end unsatisfied customers due to late deliveries. The data that Telia wanted to use when measuring their supplier on-time delivery performance is lead time. The time from when the order was made, the date the supplier confirmed the order and the date when the order was fully executed. However, the suppliers can have a different definition of when they are delivering on time.

One supplier said that their on-time delivery performance was 100% since they sent all they had.

- Purchaser 2

The purchasers believe that improvement work regarding supplier on-time delivery performance is being conducted by sourcing and that the suppliers is involved in the process. The focus for the purchase planners today is to make orders on the right dates and keep track of when the deliveries are expected in order to make a delivery promise to the end customers. Suppliers can be targeted for improvements for this matter. The lead time could sometimes be reduced with the supplier to help improve the supplier on-time delivery performance. It is according to the purchasers easier to handle a delivery date that is shorter than a date with a long lead time. The most important part for purchasers is high reliability for deliveries, rather than short lead times with low reliability.

4.2.2 Document Studies

The case company is using two different kinds of ERP-systems for their purchase planning. These are CDPPT and Oracle 1B. From CDPPT, an inbound report can be generated in the form of an excel file, and thereby, information regarding supplier on-time delivery performance can be viewed. It can be seen when Telia wants the order to be delivered which is referred to as purchase order (PO) line desired. Furthermore, it shows when Telia sends the purchase order to the supplier and it can be seen if the purchase order has been confirmed by the supplier and what date. It does not show if the delivery date is agreed upon in the document. The inbound report shows when the order is delivered at Telia but does not show if the delivery date was considered acceptable or not.

In Oracle 1B, there is a dedicated page for viewing the historical data of the supplier on-time delivery performance. Here as well, an excel file can be generated from the ERP-system. This report gives a clearer overview of the supplier on-time delivery performance. In this document, it can be viewed when the order is needed by Telia, when the order was made and when it was actually delivered. Furthermore, it is shown how the actual delivery date differs by the supplier from the delivery date desired by Telia.
The report generated from Oracle 1b presents adequate and usable data of supplier on-time delivery performance. However, in both systems there are lack of information to declare if the performance is good or not and if something has changed during the order. The extracted documents from the systems does not inform if the agreed delivery date has been changed. Agreed delivery date can only be changed in the documents manually.

When looking into the delivery instructions at Telias central warehouse, it can firstly be seen under the warehouse information that the warehouse is only open during the day from 7-16. Exceptions can be agreed via phone. The delivery requirements tells the supplier that delivery must be announced by email at least one day prior to arrival.

To summarize, the process of working with supplier on-time delivery performance at Telia is in an early stage as they are now looking into it. The reason to why Telia is looking into it is because it affects their inventory management and their ability to fulfill customer promises. There is room for development in several aspects. There was an absence of reliable and easily accessible data that could be used for negotiating, putting pressure on the suppliers and for improvement. No delivery window is used, and delivery is expected on the agreed date. Furthermore, the suppliers receive no penalty when they miss the agreed delivery date. Telia has clear definitions for the aspects regarding supplier on-time delivery performance. Their suppliers have varying definitions. Telia tried to conduct lead time reduction with suppliers. Most often, this has led to Telia perceiving better supplier on-time delivery performance. Telia was well aware of their behavior as a buyer and how it could affect their supplier’s on-time delivery performance.

4.3 Supplier Relations

4.3.1 Interviews
Post interview results showed how every purchase planner used multiple communication methods to communicate with their suppliers, mainly via electronic mails and phone meetings. Different suppliers also required different methods to place orders, but the tools were by automatic EDI or manual orders via their two software’s, CDPPT and Oracle 1B according to the interviewees. Either way the method for order placements would be to use either one of the tools or a combination, depending on the supplier. The suppliers are all very important to the purchasers because they can provide a broad and deep assortment to Telia. The interviewees were asked of how they believe their suppliers perceive Telia in relation to importance were. Every interviewee perceived Telia as a leading company in the Scandinavian/Nordic in the telecommunication retailing business, where one interviewee added that their perception changes in the global telecommunication retailing business, where Telia would then be seen as a small company with regards to bigger multinational companies.

Telia had formed relationships with their suppliers to different extent. Every purchaser would argue to a stronger and more complex relationship to the extent where both parties would try to help each other whenever a problem occurred. One deviation of this was also portrayed, where a supplier formed a closer relationship to the extent where the supplier would place a warehouse closer to Telias main warehouse to shorten lead times. When the suppliers could meet Telias demand, the supplier on-time delivery performance could be improved, depending on what demand it was. These instances would happen preferably if a win-win situation occur. A follow-up question to this was to why they did such thing and the answer was that that specific supplier wanted to be help and make the processes easier.

The concept of power asymmetry is equally as important as on-time delivery performance, such questions also needed answer. For this question, the sourcing manager could also contribute with answers. The purchasers did not experience any big difference in power asymmetry but would rather experience that the suppliers would try to assist in times when it was needed but made no promises. The sourcing manager however did see a power asymmetry where it was noticed that Telia could not set any demand they wanted towards their suppliers. The sourcing manager also mentioned that there was more than just a transactional relationship, it has gotten to the point to where they try to achieve a win-win situation for both parties. The case where power asymmetry was not apprehended by the purchasers, it was discussed that they have got a simple relationship where they try aid and show respect to each other. To add more context for this matter, one purchaser said:
“The suppliers can never promise, but they can escalate and see what they can do. This is better than not knowing anything at all.”

- Purchaser 3

To some extent would Telia take action to demand their suppliers to act upon to Telias requests. The interviewees would discuss how Telia still could not force any supplier to do something, instead Telia could ask them. If a supplier could not deliver what they promised, Telia would let them know about their poor performance. From one interview, it was also mentioned one instance where a supplier would promise a delivery but was not able to deliver any products to Telia in time and left Telia uninformed. This unfortunate event did not blacklist the suppliers from Telia, but rather make them less attractive for Telia in the future. Such instances seldomly escalated to upper management and was instead taken care of at the operations level according to the sourcing manager.

None of the purchasers had the ability to set demands of product information and forecasting on their suppliers. No supplier would go to the extent where they would provide product information that could ease the process of forecasting. Suppliers of hardware mobile cell phones had this issue, but mostly at product launches where the retail buyer did not get any information at all until the product information goes public to everyone. Another purchaser even mentioned how they had to change estimated delivery dates to their end consumers multiple times due to the uncertainties when forecasting and planning new product launches.

To summarize the supplier relationships, some would notice the power asymmetry whilst other did not. However, every purchaser agreed that they could not set any further demands for their suppliers to do something. The interviews present that every purchaser instead had the mindset of asking if their suppliers could do favors for them. It was also discussed that their suppliers are all equally important to the company due to the broad assortment they can provide to end consumers. Some purchasers argued that the broad assortment had a trend of uncertainties in forecasting and planning due to the supplier's unwillingness to share product information before it goes public.
5 Analysis

This chapter connects the empirical data and theoretical framework with an analysis of outcome.

5.1 Research Question 1 - How does power asymmetry influence supplier on-time delivery performance in a low-power retailer and high-power supplier context?

McCarter and Northcraft (2007) discuss that power asymmetry is present both directly and indirectly in dyadic relationships. Cox (2004), Maloni and Benton (2000) backs up this theory with the approach of coercive and non-coercive bases. These kinds of relations will always be present, as both the supplier and buyer want to use each other to gain a competitive clout (Morgan & Hunt, 1994). The interviewees from this empirical study however says that they did not perceive any power asymmetry in their retailer-supplier relationships. However, there were characteristics in the relations discussed that showed signs of power asymmetry through the empirical interviews. Telia did not have the enough power to set demands on their suppliers but rather ask for solutions which shows a sign on a low-power retailer, where decisions depend on the high-power supplier (Maloni & Benton, 2000). This instance is something that happened every purchaser with their suppliers, where no demands could be set to influence the supplier on-time delivery performance. It can be concluded through five interviews that Telia is in a low-power position where they want to keep the mutual respect towards their suppliers. Furthermore, Telia cannot force the suppliers to perform certain tasks for them.

There was an example where a supplier was very late with multiple deliveries, which resulted in dissatisfied end customers. This was confirmed by the document studies that was provided. If there truly was an absent of power asymmetry, their relationship would be at a point where Telia would get notified with these late deliveries in time. Effective communication flow can strengthen relationships and bring the partners closer and make processes more effective (Palmatier & Grewal, 2006; Morgan & Hunt, 1994). Furthermore, Agnihotri, Rapp and Trainor (2009) identify effective communication as one factor to improve customer satisfaction that can be applied from the supplier’s perspective. This simplifies the process of planning for retailer companies such as Telia and aids to prevent the bullwhip effect for the inventory management (Hung et al. 2009). The empirical data suggests that the supplier relations can possibly be developed and flexible enough to assist in managing inventory management, depending on the willingness from the suppliers. However, empirical data also suggest that this type of demand is arduous to set with high power suppliers and have thus not been fully implemented throughout the supply chain. Wagner et al. (2009), Ryu et al. (2007) and Habib et al. (2015) explains that collaboration and relationships are ideal when companies can see a win-win situation in it, as well as put less stress on the relationships. The interviews hinted towards relationships as win-win situations did occur in some instances. This helped Telia to balance out power asymmetries. In the example of a supplier who could not deliver in time, there was a try to collaborate before a mutually initiated campaign. To collaborate is beneficial and in line with theory as Michalski et al. (2018) states that collaboration is the best way to improve performance in relations with power asymmetry.

In the dyadic relations that the purchasers had with their suppliers, it was shown that Telias attractive factor was their size in the telecommunication retailing market, while Telias suppliers could provide attractive products. Tanskanen and Aminoff (2015) notes that this is a good example of how relationship marketing works in practice, where the suppliers offer a wide assortment. This results in a present dyadic marketing relationship on both ends. However, with the inability to set demands on the suppliers when needed indicates the diverging power balance in the dyadic relations. The empirical data also indicates that the power asymmetry has different characteristics with different supplier relations. Thus, both coercive and non-coercive relations are present at Telia, as it must occur in any type of dyadic relation (Cox, 2004). These coercive and non-coercive relations at Telia effects on-time deliveries differently. Some cases require Telia to operate upon the suppliers’ terms, where other suppliers operate on Telias terms. The theory of retailers often becoming the low-power buyer by Maloni and Benton (2000) can still be applied in this single case study.

Power asymmetry is present and influences supplier on-time delivery performance in the following ways:

- A low-power retailer can experience difficulties to set the demands they need on their suppliers.
- Can influence the communication flow and thereby limit supplier on-time delivery performance.
• Collaboration and relationships can balance out the power asymmetry and a win-win situation can occur. This could lead to higher supplier on-time delivery performance.
• Telia has an attractive force that leads into relationship marketing. This could help balance the power asymmetry and improve supplier on-time delivery performance.

5.2 Research Question 2 - How can low-power retailers work with high-power suppliers to improve their supplier on-time delivery performance?

The empirical data indicates that Telia knows what they want to measure and why they want to measure. This goes in line with Lebas (1995) who describes this as an important part of performance management. From the empirical chapter, it is known that Telia has the possibilities to get extracts from their ERP-systems containing information about supplier on-time delivery performance. However, it is known from the interviews that they do not actively work with it. Telia explained the reason of this being that it is not prioritized at the moment. Furthermore, the information achieved from the systems are not enough nor reliable since changes of orders in the systems must be made manually and can easily be forgotten. When the information about the supplier on-time delivery performance is unreliable, it cannot be used for negotiation or as basis for improvements.

From the interviews it is known that a low level of supplier on-time delivery performance creates unreliability for Telia regarding their inventory management and making customer promises. Grout (1998) states that this problem can be handled by using delivery windows as it can be effective for reducing the variance in the deliveries from the suppliers. Telia is not using any delivery window in terms of days, and delivery is expected to be executed on the agreed delivery date. Furthermore, the warehouse is only open during daytime which reduces the availability of receiving inbound delivery and thereby the supplier’s chances of delivering on-time. Bushuev (2018) describes delivery windows and means that if the delivery is not in the on-time interval, a penalty cost should be incurred for the supplier. However, to put a penalty cost on a supplier that misses the delivery because of the tight opening hours at the warehouse, may not be optimal as it can hurt the relation with the supplier. Penalty costs would be more appropriate to focus against the suppliers that are missing the delivery date by several days as they are more likely to make Telia not fulfilling their promises to their customers. A solution to increased supplier on-time delivery performance could be for Telia to have the warehouse open for more hours and thereby increasing their flexibility in receiving goods.

Griffis et al. (2004) described how a shared view and defining of performance measurement is of importance for improvement. Regarding the defining of on-time delivery performance, Forslund and Jonsson (2010) stated issues about the defining of measurement object, time unit, measurement point and comparison date. Telia had the definitions clear for this matter but they did not know if they were defined in the same way by their suppliers apart from one example. The one example is from the empirical data when a supplier thought they had perfect on-time delivery performance and motivated it by saying that they had delivered all they had. This was understandably not accepted and should not be since it does not say when Telia can expect the delivery. For better improvement work regarding supplier on-time delivery and to increase the performance, it would preferably begin with both parts in the dyadic to together ensure a shared view on how the supplier on-time delivery performance should be defined.

From the interviews, it was found that Telia perceived a better supplier on-time delivery performance when they conducted a lead time reduction. The lead time was reduced by the supplier placing a new warehouse closer to Telias warehouse. This goes in line with Tersine and Hummingbird (1995) where it is described how strategies for lead time reduction often are responses to logistical chain problems in procurement and distribution. For an increased supplier on-time delivery performance, Telia can not only work for the supplier on-time delivery performance directly, but also work with it indirectly with the help of lead time reduction with suppliers, that in turn can increase supplier on-time delivery performance.

Pagell & Sheu (2001) describe how buyer behavior affects the supplier and its ability to perform in a supply chain. An action from the buyer that is not affecting their own performance can have a significant effect on the supplier’s performance to the buyer. This type of buyer behavior was identified and Telia was aware of their buyer behavior. Some high-power suppliers required orders to be made before a set deadline. If the deadline was missed, the delivery was not be likely to be on-time from the supplier. To prevent this, Telia made sure to place orders at the same time every week to those specific suppliers that had this demand. The power asymmetry that rules here forces Telia to operate on the supplier’s terms. However, in this case it can be seen how adapting to the terms of the high-power suppliers, the on-time
delivery performance can be increased for the low-power buyer. Pagell & Sheu (2001) also found that supplier delivery performance was lower in Europe where outsourcing also was more prevalent. The results of this study go in line with their study as Telia, who is operating in Europe, also outsourced their physical part of the logistics and had issues with their supplier delivery performance. The delivery instructions were analyzed to see if Telia could work in another way. However, the delivery instructions include the necessary information required for a supplier to execute the delivery as desired and efforts to improve the delivery instructions are not needed.

The analysis has led to four ways for how a low-power retailer can work with high-power suppliers to improve their supplier on-time delivery performance:

- Delivery windows
- Ensure a shared view with the supplier of how it should be defined
- Lead time reduction
- Adapt to the high-power suppliers’ terms

From RQ1, it can be concluded that power asymmetry influences supplier on-time delivery performance in relations with low-power retailers and high-power suppliers. The interviews say otherwise, there is no power asymmetry. However, there were still characteristics that power asymmetry was present in the buyer-supplier relations. In some instances, suppliers would not notify Telia with product launches to assist in forecasting, which is another sign of Telia being in the low-power retailer sector. Seeing how Telia were not able to set strict demands on their suppliers but rather ask the suppliers for solutions, these decisions can be based on the theory of relationship marketing, where both parties are still dependent on each other, even if power asymmetry were present. Morgan and Hunt (1994) suggest that relationship marketing is where everyone in such relation want to create value and benefits for themselves. Seeing how Telia still need their suppliers’ products to stay attractive, and how their suppliers can benefit from economy of sales, it fits the concept.

From the analysis of RQ2, four different ways to the work with the supplier on-time delivery performance while being a low power retailer was identified. The first way that can help to increase the supplier on-time delivery performance is delivery windows, as they open up for more availability with the buyer and the supplier has a larger opportunity to execute deliveries on time. The second way is to ensure a shared view of how the performance measurement should be defined. Different definitions of what date that counts as hits or misses cannot lead to a shared view in the dyad, and thus improvement cannot take place. The third way is to reduce lead times as it is proven by both theory and empirical data from the case study to work for increased supplier on-time delivery performance. The fourth way can be described as if the supplier is of high power and has set delivery times, it is preferable to adapt and follow the delivery times to get the deliveries on time.
6 Discussions and Conclusions

The chapter gives a summary for the results of the study. The implications and limitations are then further described. Moreover, the study's conclusions and recommendations are described. Lastly, proposals for further research is made.

6.1 Discussion of Results

The aim of this study has been to get an understanding of how a low-power retailer can incentivize their high-power supplier(s) to improve their supplier on-time delivery performance. The results of the study contribute to further knowledge and understanding of the impact of power asymmetry and its influences on the supplier on-time delivery performance. The results also make it easier for other retailers to see how they can act when they are being affected by power asymmetry in a negative matter.

The results from RQ1 indicate that power asymmetry influences supplier on-time delivery in such manner that a low-power retailer have a hard time influencing their high-power supplier on-time delivery performance. However, the low-power retailers could focus on how to communicate effectively with their suppliers. This can help solve misunderstandings and make the actors more flexible towards one and other. Not only can effective communication help increase supplier on-time delivery performance, but also help solve other problems that may occur in the relationships. Low-power retailers and high-power suppliers can consider collaboration or relationships to achieve flexibility in not only on-time delivery performance but more flexible to problems that arises. Being a flexible retailer could lead to attractiveness to stakeholders. If the company can provide flexible services and solutions, this goes well aligned with relationship marketing. Companies operating with relationship marketing can help balance the power asymmetry.

The results from RQ2 was that to get improved supplier on-time delivery performance, the low-power retailer could work in several ways. The use of delivery windows could be advantageous and improve the supplier on-time delivery performance since it makes the low-power retailer more available for receiving deliveries. Ensuring a shared view with the supplier of how the on-time delivery performance should be defined could enable for better performance as the room for misunderstandings decreases. Conducting lead time reduction with suppliers showed to often improve the supplier on-time delivery performance. This approach is preferable as it achieves two positive effects with one action. Adapting to the high-power suppliers' terms can be something that a retailer wants to avoid. However, in some cases, for example this case, it can be better to adapt to the high-power supplier to achieve the highest possible supplier on-time delivery performance. A fifth way could be to start with penalties for the suppliers when they do not deliver on-time. However, putting penalty costs on suppliers could hurt the relation and lead to negative effects. For example, a supplier who thinks that their own performance is good could perhaps exit the relationship if they get penalties. This could have a large impact on the retailer's business.

These results in this study thus builds on evidence that supports theories for the subject of power asymmetry and on-time delivery. Since there are many different niche areas within retailing, the telecommunication retailing business has contributed with the demonstration of having global-well-known brands to retail. This branding size difference can provide a clear difference in power asymmetry, and the true power of low-power retailers. This study demonstrates that the retailer's high-power suppliers is hard to incentivize as Telia could not set the demands they need to. This is aligned with previous research. Earlier research explains that power asymmetry exists in every business relationship, with retailers often recognized as the low-power company. The only result that is not in line with previous research was the theory about delivery windows from Bushuev (2018) and Grout (1998) that were not used by the case company. However, not using the delivery windows seemed to reduce the chances for the case company to receive their deliveries on-time which indicates that the theory about using delivery windows should be considered. Each and every company is different in this matter, where purchasers don’t necessarily have similar working tasks or supplier behavior. Nevertheless, this research fills the knowledge gap for power asymmetry for retailers, where on-time deliveries is an important performance measurement to get control of the supply chain and save costs.

6.2 Sustainability

With a better understanding of how a low-power retailer can incentivize their high-power supplier(s) to improve their supplier on-time delivery performance, suggestions on how this study relates to sustainability are discussed in three perspectives; economic, social and environmental.
6.2.1 Economic
Understanding the power asymmetry and its effect to supplier on-time delivery performance should in essence help the inventory management. Accurate inventory planning can help reduce inventory costs and facilitate processes for the inventory management. Saving inventory costs could help ensure a long-term economic sustainability. Another way of ensuring long-term economic sustainability is that companies can set promises and fulfill them for their customers. Fulfilling customer promises can lead to more satisfied customers who are coming back to the company when they are looking into their next purchase. This would help the company’s long-term economic sustainability and retain the customers to come back for further purchases.

6.2.2 Social
With a better understanding of how power asymmetry affects dyadic relationships, this could put less stress on the people managing the relationships. Understanding what the high-power suppliers wants and what can be demanded, this can facilitate the communication flow. Furthermore, it could put less psychological stress in the communication for the dyadic relationships. Less stressed employees can help them feel less stressed on their spare time as well.

6.2.3 Environmental
Not only can a better understanding help inventory management and its processes, but accurate forecasting can help plan full truck loads and minimize unnecessary gas pollutions with half truck loads. In the instance where the supplier conducted a lead time reduction, this also reduced the distance for trucks to cover for deliveries. This example also reduced the pollution emitted by trucks by driving shorter distances. With this in mind, companies can be seen as more environmentally friendly and sustainable.

6.3 Implications
6.3.1 Practical Implications
Practitioners need to be aware of their power position in dyadic relationships and act accordingly. It can be suggested that purchasers should have more communication with the sourcing department. This because the two departments are actively working with suppliers. The difference is that purchasers works continuously with suppliers every day, while sourcing managers handle strategy related questions and negotiations. These two operations are vital for on-time delivery performance.

Procurement and purchase managers should be aware of power asymmetry, to make sure that they don’t push for demands that is exorbitant or harm the supplier relationships. Practitioners should have in mind that power asymmetry and supplier on-time delivery performance can have many names in different forms. This study focuses on these two terms and have been researched using these terms. The results could vary with different search combinations in different retail companies.

6.3.2 Theoretical Implications
The results presented in the analysis of the study are in line with existing theory and supports earlier research. However, earlier research focuses mostly on how on-time delivery performance can be measured or how it can improve. This study studied this matter from another angle and looked at how the power asymmetry in a dyadic relationship influences the supplier on-time delivery performance. Earlier literature has not emphasized this issue from this context and angle before and thus a knowledge gap is filled, and concepts has been strengthened.

Maloni and Benton (2000), Cox (2004) and El-Ansary and Stern (1972) all argue that power asymmetry is present in buyer-supplier relations, which has been proven in this study. During the interviews in this study, there were signs of power asymmetry in the supplier on-time delivery performance context. Another concept that was strengthened from this study, was the relationship marketing by Morgan and Hunt (1994). This study showed that relationship marketing can help balance the power asymmetry and on-time deliveries.
6.4 Discussion of Limitation

6.4.1 Case Study
A single case study was performed, which gave the opportunity to investigate a specific subject area in the context of supplier on-time delivery performance and power asymmetry from a low-power retailer’s perspective. Multiple case studies would generalize for a larger population, while single case studies cannot. However, a single case study can give a deeper understanding of the subject. This has helped this study to get in-depth qualitative data through interviews. The results in this report should also be taken into consideration that the interviewees were three purchasers that represented a whole group with their answers for the whole case company. A limitation with conducting interviews is that the answers from respondents do not necessarily reflect the organization’s view. However, multiple respondents were interviewed to handle this problem. Many of the respondents gave similar answers which gives an indication of that the respondents answers could represent the company’s view to some extent. It is possible that a group interview with the respondents could have brought other insights to the study as they would have the opportunity to discuss the issues. However, according to Yin (2007), this can make the respondents answers influenced by the other participants and thus individual interviews were chosen. In this study, an observation was not chosen as method as it is the relations with the buyer and supplier that was studied and thus an observation would not be beneficial.

The results from the interviews were strengthened with the empirical data from the document studies. The document studies were of relevance as they gave information about how the supplier on-time delivery performance were handled and how the case company instructed their suppliers to deliver. A weakness with document studies is according to Yin (2007) that it can be hard to obtain some documents. This was the case with contracts. The authors believe that an analysis of contracts with suppliers would have revealed a lot of information about the supplier relations. This could have generated even further results for the study. However, contracts are sensitive information, especially in the telecommunications business. The authors requested contracts for the document study, but as it was too sensitive, it could not be obtained. Instead, this shortcoming had to be handled, leading to that a more overview description of what the contracts said, was obtained from the interviews.

6.4.2 Literature Study
The literature study helped to get a high level of knowledge and understanding within the area and thus appropriate limitations for the study could be set. The literature study further contributed to choosing fitting theories for the theoretical framework. Furthermore, this also helped to generate relevant interview questions in the interview guide. As the authors primarily choose most sources that were “peer reviewed” and most preferably from journals with a high level of reputation and ranking, it ensured that the studied literature is relevant and has quality. In essence, this has been a way to try and improve the overall quality of the study as everything is derived from high quality literature.

6.4.3 Quality of the Study
The reliability was ensured with a carefully described course of action throughout the study. Furthermore, the course of action as well as the data collected was documented and studied upon with a structured manner. The interviews were recorded, and notes were taken during the interviews to assure that no data was lost during the interviews. One factor that had a negative impact on the reliability is that the questions in the interview guide was supported by supplementary questions. On the other hand, the supplementary questions gave further insights and helped to get more results as they were used when something new and interesting related to the subject was discovered.

The validity was ensured by pattern matching. As the study was conducted in the form of a single case study, the external validity is low, and generalizations cannot be made more than for companies in the same situation in the telecom retailer business. A single case study was chosen for this matter to gain deep knowledge for this subject.

6.5 Conclusions and Recommendations
This study aimed to provide further knowledge about how low-power retailers can incentivize their high-power suppliers to increase their supplier on-time delivery performance. Being a low-power retailer in a dyadic relationship has its challenges when having to deal with high-power suppliers. Drastic and satisfying changes may not always be possible for low-power retailers in a dyadic relationship. Improvement and changes can however always be done by working with high-power suppliers and
ensuring that they have the possibilities to provide a satisfying level of supplier on-time delivery performance. These improvements and changes can be major and minor, internal and external.

Based on the conclusions and the results from the analysis, it is recommended that low-power retailers should try to work with their high-power suppliers to reduce lead times, and make sure that they are giving their high-power suppliers good opportunities to deliver on-time with clear instructions and reasonable delivery availability. Furthermore, low-power retailers should try to get a shared view of the concept of on-time delivery performance in their organization and create a consensus with their suppliers.

6.6 Further research
Replications of the study would be appropriate to conduct in other businesses to cover a broader retail perspective to confirm the results in this study further. Since this report only used a single case study, it would be interesting to see if the results are similar when looking at more companies in the same situation. Supplier on-time delivery performance is something that most likely all companies with suppliers would want to keep at a satisfying level. The power asymmetry angle could most likely be applied on most dyadic relations even if it is evident or unnoticed.
References


Appendix
Appendix 1 - Interview guide

Interview guide

General information about the interviewee and its position
1. How long have you been working here?
2. What is your position within the company?
3. What are your responsibilities?
4. Who are your suppliers that you manage?

Questions regarding supplier on-time delivery performance
5. Who is responsible for the measuring of supplier on-time delivery performance?
6. Why do you want to measure supplier on-time delivery performance?
7. Describe what the negotiated contract between you and the supplier say about on-time delivery performance?
8. What measurement object are you defining that should be on-time? (number of orders, order lines or individual items)
9. What time unit are you using regarding on-time delivery? (Hour, day, weeks, delivery window)
10. Where in the supply chain do you want the delivery executed?
11. Describe the logistic outsource services.
12. What date do you consider as the measurement date for on-time delivery (initially wished upon date or agreed date with supplier)
13. How does your delivery window for the supplier look like?
14. What happens if a supplier misses the delivery window for their deliveries?
15. How does low on-time delivery performance affect your responsibilities? and the company?
16. How do you measure delivery performance?
   a. Are you using any standard metric for measuring on-time delivery performance?
   b. What type of data do you collect?
17. How does your suppliers define on-time delivery performance?
18. How does the company work with improvement of on-time deliveries?
   a. To what extent is the supplier involved in this improvement process?
   b. Do you have any strategy to increase the on-time delivery performance?
19. At what point do you act against perceived low on-time delivery performance?

Questions regarding supplier relationship
20. Which suppliers among the ones you manage are the most important ones?
   a. How important are they?
   b. Why are they of such importance?
   c. How important would you consider this company for them?
21. To what extent is there a buyer-supplier relationships with these suppliers?
   a. How does this company benefit from having such relationship with these suppliers?
22. How do you communicate with the supplier?
   a. What information exchange method is used with the suppliers?
23. Power asymmetry is the imbalance of power (the ability to decide) in relationships. Describe how the power asymmetry is perceived in this buyer-supplier relationship?

24. How does this power asymmetry affect your working tasks?

25. What is your perception of the company in the market?

26. What can you do in order to minimize the gap of this power imbalance?
   a. What demands are you able to set on the supplier?
   b. To what extent is the demands/requests acted upon?

27. How early before desired delivery date are you ordering from your supplier?

28. How often is there a change in requested orders?
   a. How does suppliers respond to changed orders
   b. How does these changes result in on-time deliveries?

29. What kind of feedback do the suppliers get from you?

30. What is the suppliers response on this feedback?

31. How frequent do you place an order to your supplier? (on a regular basis or whenever you need it)