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THE IMPACT OF DELIVERY PROBLEMS CAUSED BY COVID-19 ON THE SUPPLIER RELATIONSHIPS' TRUST

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Covid-19-pandemialla on ollut merkittävä vaikutus liiketoimintaan ja toimittajasuhteisiin. Pandemia alkoi varoittamatta ja yllättäen, eikä yrityksillä ole ollut aikaa varautua sen aiheuttamiin haasteisiin. Tehtaiden mennessä kiinni ja työntekijöiden sairastuttua, toimittajat ovat olleet haastavan tilanteen edessä, sillä heidän liiketoimintansa on saattanut hidastua tai jopa pysähtyä kokonaan, eivätkä toimittajat siksi ole voineet toimittaa haluttuja tuotteita tai palveluita asiakkailleen. Toimitukset ovat viivästyneet tai olleet täysin mahdottomia suorittaa, ja tällä on ollut suoria vaikutuksia myös heidän asiakkaidensa liiketoimintaan. Tämä työ keskittyykin juuri koronan tuomiin muutoksiin toimittajasuhteissa ja miten toimittajasuhteiden luottamus on muuttunut pandemian aikana.

Tutkimuksen tavoitteena on selvittää, miten koronan aiheuttamat toimitusongelmat ovat vaikuttaneet toimittajasuhteiden luottamukseen. Tutkimus pyrkii selvittämään, miten nämä toimitusongelmat ovat vaikuttaneet niin matalan kuin korkean luottamuksen toimittajasuhteisiin ja minkälaisia eroja näiden toimittajasuhteiden välillä löytyy luottamuksen muutosten suhteen. Tutkimus pyrkii myös selvittämään syitä näiden muutosten taustalla ja mitkä tekijät erityisesti ovat vaikuttaneet luottamuksen kasvamiseen tai heikkenemiseen näissä toimittajasuhteissa.

Tutkimus on toteutettu teoreettisten lähtökohtien ja empiirisen tutkimuksen avulla. Empiirinen tutkimus on toteutettu kyselylomakkeen muodossa, joka on lähetetty teknologiateollisuuden alan työntekijöille, jotka työskentelevät tiiviissä yhteistyössä toimittajien ja toimittajasuhteiden kanssa. Lomakkeeseen vastasi 50 teknologiateollisuuden alalla työskentelevää henkilöä eri taustoilla ja eri mittaisella työkokemuksella.

Tutkimustulosten mukaan toimittajasuhteiden luottamuksen tasolla ennen pandemian alkua oli vaikutuksia luottamuksen muutoksiin pandemian aikana. Luotto matalan suhteen toimittajiin heikkeni entisestään koronan aikana, mutta luotto korkean luottamuksen toimittajiin pysyi samalla tasolla kuin ennen pandemiaa tai jopa tiivistyi. Osa vastaajista koki luottamuksen ja koko toimittajasuhteen olevan paremmalla tasolla kuin ikinä korkean luottamuksen toimittajien suhteen.

AVAINSANAT: Supplier relationships, Inter-organizational trust, Delivery problems, Covid-19, Supplier performance

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1 INTRODUCTION

1.1 Motivation for the study

Covid-19 was declared as a global pandemic by WHO (World Health Organization) on the 11 of March 2020 and has been among us ever since. (Dashraath et. al. 2020: 521) The global pandemic of Covid-19 started to spread in the autumn of 2019 from Wuhan, China. (Fauci et. al. 2020: 1268) Lockdowns implemented in several countries have been slowing down the economy and pruning the flights has also done its part in complicating the economical situation around the globe during the pandemic. Additionally, also other kinds of transportation such as trains and trucks were also stopped and the amount of them was being reduced as much as possible (Chakraborty et. al. 2020: 2–3).

As the Covid-19 pandemic has drastically changed business life, my motivation for this thesis is to find out how it specifically has changed supplier relationships and their trust. Since the pandemic occurred unannounced and without any warning, organizations have had to adapt to the new "normal" in the business environment, some with better some with worse success. Supplier relationships have also been affected by the pandemic and the sudden appearance of the virus has influenced their operations. My motivation for this study is to find out what kind of impact the delivery problems caused by Covid-19 have had on the supplier relationships' trust. Specifically, whether trust has strengthened or weakened and what can be considered as the causes of the changes that occurred.

1.2 Research question

This study aims to discover whether organizations have experienced delivery problems because of Covid-19 and how these delivery problems have impacted the supplier relationships' trust. The goal of this study is to find out how trust has changed because

of the delivery problems caused by the pandemic, whether trust has strengthened or weakened, and also whether there has been an impact at all. Thus, the research question of my study is the following:

How the delivery problems caused by Covid-19 have impacted the perceived trust in low trust supplier relationships in comparison with high trust supplier relationships?

Two supplementary questions are defined to help to answer the research question. These supplementary questions are:

What factors have strengthened trust?

What factors have weakened trust?

Additionally to find out the changes in supplier relationships' trust, this study will analyze the factors behind these possible changes, in other words, what are the factors that have influenced the results in trust and its possible changes. Thus, the study aims to find out for which reasons trust has strengthened and vice versa, what are the reasons behind the possible weakening or even complete loss of trust.

1.3 Keywords of the study

The keywords of this thesis are the following:

The phenomenon of drastic changes in the business environment: Drastic environmental changes that strongly influence and change the business environment as well. The oil crisis, international recessions, and the Covid-19 pandemic are examples of these kinds of drastic changes that have influenced the business environment.

Inter-organizational trust: Trust is a consequence of putting oneself in a vulnerable position and the trust that follows from both parties of a relationship putting themselves in this vulnerable position promotes the relationship performance. (Poppo et al., 2015)

Building trust: Communication within an organization and information sharing are crucial factors both when building trust and as a result of trust. (Seppänen et al., 2014, p. 11) Additionally, goodwill, competence, and behavior are aspects that affect trust-building. (Blomqvist et al., 2000)

Losing trust and distrust: Distrust and trust are the extremities of each other. They exclude each other which means that it is only possible to have a high level of either of them or a low level of either of them (Seppänen et al., 2006, p. 181).

Supplier relationship: In a buyer-supplier relationship the good and the bad is shared and the parties of the relationship know what is required from them and what is their position in the relationship. Trust and information sharing are crucial in a functioning supplier relationship (Inayatullah et al., 2012, p. 74).

Delivery problem: Delivery problem refers to problems in deliveries that can occur in different parts of the transportation. (Parragh et al., 2008, p. 81)

1.4 Structure of the study

This study consists of five main chapters. Chapter 1 is the chapter of introduction, followed by the theoretical main chapter, chapter 2, which is divided into subtitles that present the theoretical framework of the thesis. These subtitles include the phenomenon of drastic changes in the business environment, inter-organizational trust, supplier relationships, and delivery problems. After the theoretical framework is presented, chapter 3 introduces the methodology of the study, followed by the empirical

part of the study, chapter 4. After the findings and their analysis, the findings are summarized in the following section, chapter 5, and the final chapter 6 includes discussion and conclusion with theoretical implications, managerial implications, limitations of the study, and suggestions for future research.

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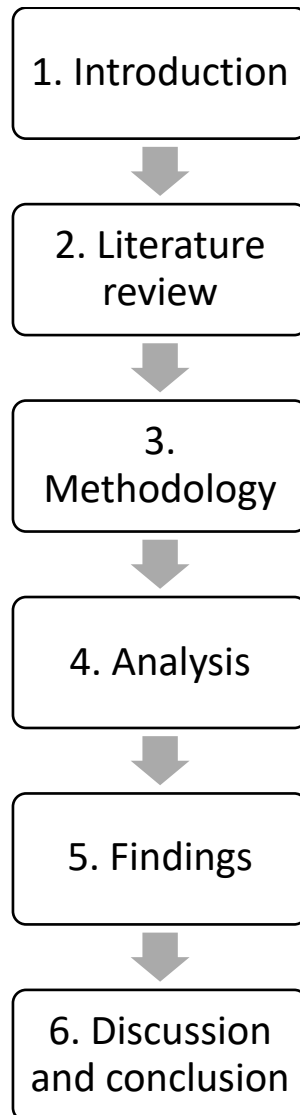
Figure 1. The structure of the study.

2 LITERATURE REVIEW

2.1 The phenomenon of drastic changes in the business environment

The currently prevalent Covid-19 pandemic can be considered as one shocking environmental change that impacts the business environment. These kinds of global threats create uncertainty in the environment and show how vulnerable the world is to drastic changes in the environment. Drastic global changes require international collaboration and effective response that also can be challenging to execute in practice. Crisis such as the pandemic will have a long-term effect on many aspects of human lives as well as on the global economy. Thus after such a drastic change in the business environment, a new "normal" will arise and people and organizations will have to change their habits to be adjusted to the new prevalent conditions (Fernández-Villacañas Marín et al., 2020, p. 98).

According to Fernández-Villacañas Marín et al. (2020), drastic changes in the business environment can be caused by several different factors such as climate change and extreme weather conditions as a result of it, hunger and water shortage, natural catastrophes, environmental catastrophes caused by humans, cyber-attacks, failures regarding global administration, reluctant emigration, etc. In order to at best respond to these possible threats, preventive actions and systems are needed to detect the arising threats as soon as possible. These kinds of preventive systems and actions are needed in the strategic planning part as well since including the anticipation of possible crisis protects the businesses and also human lives in the environmental, social and economic areas. Preventive actions are needed to be taken in all functions and organizations related to those cases whether they are private or public or national or international (Fernández-Villacañas Marín et al., 2020, pp. 98–99).

According to Ahtiala (1993), the economy and business environment have faced drastic changes during the past decades and one of them was the oil crisis that shook the world

in the 1970 s. The oil crisis started in 1973 resulting in the oil prices drastically rising caused by the fear that oil will eventually run out of the world (Ahtiala, 1993, p. 382) The primary reason for the crisis was a forming of a cartel between the main Western oil firms. The cartel started to weaken and the Organization of the Petroleum Exporting Countries (OPEC) and oil guns from Arabic countries were brought into the game. The oil crisis also affected other areas related to the oil politics, such as the US dollar and its connection to oil and political formations in the major production countries (Mitchell, 2010, p. 190).

Since the fear of oil running out was spreading around, it resulted in a phenomenon of excessive storage that lead to an international recession. (Ahtiala, 1993, p. 383) Another phenomenon that followed the oil crisis was a lack of products and services that used to be available. Other changes occurring were growing queues, worries about the availability of products and services in the future, and prices of products rapidly drastically increasing. Together with the oil crisis, these phenomena gave the Western population a taste of neoclassical economics and its modes of operation (Mitchell, 2010, p. 190).

The recession was caused by the oil crisis in the mid-1970 s when the world suffered from a deep supply recession. The recession included the current account deficit and was a result by an overheated economy (Ahtiala, 1993, p. 382). Labonte et al. (2002) write that the recession caused international inflation and increased employment globally. The blame on the recession was given to the global oil crisis but actually, the worst-case scenarios imagined regarding the impacts of the oil crisis were better than expected and calculated (Labonte et al., 2002, p. 17).

Labonte (2002) writes that followed by the recession in the 1970 s, there were crucial *recessions* also in the 1980 s and in the 1990 s. During the recession of the 1980s, economic growth was again strongly negatively influenced by the recession and the numbers of unemployment were rising which both influenced the economical situation

critically. The fault of the recession of the 1980 s was often given to the Federal Reserve which had the goal of improving the rate of inflation to a better level. The recession of the 1990 s instead, was again accused to have caused by the Federal Reserve that this time was tightening its monetary policies. Another mentioned reason for the 1990 s recession was Iraq's attack on Kuwait, followed by changes in the oil prices again. Unlike the past two recessions, the 1990 s recession's unemployment rate was reasonably tolerable (Labonte, 2002, p. 12).

One of the biggest changes the business environment has faced during the past decades has been the *Covid-19 pandemic*. Covid-19 was declared as a global pandemic by WHO (World Health Organization) on the 11 of March 2020 and has been among us ever since. (Dashraath et. al. 2020: 521) The global pandemic of Covid-19 started to spread in the autumn of 2019 from Wuhan, China. The cause of the pandemic is a virus that belongs to the same virus type with the earlier epidemics of SARS (Severe acute respiratory syndrome) and MERS (Middle East respiratory syndrome) and it has strongly impacted the health systems and afflicted the medical professionals around the world. (Fauci et. al. 2020: 1268) Researchers believe that the virus has been transmitted to humans from bats but this claim hasn't been able to be confirmed yet. (Chakraborty et. al. 2020: 2)

The outbreak of Covid-19 is severely interfering with not only people's health but also economies all over the world. The pandemic has been slowing down the economies in several countries and health care personnel are having a great burden to bear because their work is not only impacting human lives but also the whole global economy (Chakraborty et. al. 2020: 2–3). According to Song et al. (2020), the pandemic started to spread in an unfortunate situation where the global economy was not at its strongest place, which makes the effects of the pandemic even worse. (Song et al., 2020, p. 4)

2.2 Business relationships

Vesalainen (2002) writes that as long as the business has existed, also business relationships have existed since they are a key for successful business operations. Business relationships are necessary for improving the business operations of a company. It has been noticed that through externalizing acquisitions to business partners, time and money can be saved and more focus can be put into other parts of business operations. Business relationships have also changed their form through the years, and they have become deeper and more personal than ever which results in more long-lasting business relationships (Vesalainen, 2002, p. 10).

To have successful business relationships, different organizational and business-related linkage are needed. The importance of this kind of linkages varies depending on the relationship type and some organizations might consider some linkages more crucial than others for the relationship's success. Some organizations might consider personally getting to know the business partner the most important aspect, for other organizations the most important and efficient way to build a network is through subcontractors and the benefits brought by them. When focusing on subcontractors, business benefits are the main motivation and when focusing on building and improving the business relationship, organizational motivations are the focus point (Vesalainen, 2002, p. 42).

According to Vesalainen (2002), organizational linkages are necessary for business relationships. Organizational linkages can be divided into structural and social linkages between people. Structural linkages are referred as common routines and practices that form structural elements. These could be for instance meetings, teams, and other types of collaboration where people of the business relationship parties are constantly in contact with each other. The more levels the business parties are connected to each other through this kind of routines, the further have the structural linkages proceeded (Vesalainen, 2002, p. 43).

It can be stated that business relationships can be considered social structures and they can be analyzed from a perspective that concentrates on the social aspects of a relationship. Business results are created with the help of social aspects such as the interaction between the business relationship parties and efficient communication (Zhu et al., 2005, p. 64). Social connections are needed in business relationships and aspects such as communication, mutual learning, and shared views help to develop social connections in business relationships. It is crucial for the business relationship's success that the business parties communicate smoothly since a lack of efficient communication might drive the business parties further from each other. In contrast, when the communication is efficient and business parties have positive experiences from doing business with each other, trust between business parties might grow and stabilize (Vesalainen, 2002, p. 45). In social structures trust is based on existing rules and roles and trust is tested in situations of crisis or challenges when the normal business operations are negatively affected. The more developed the cooperation is between business parties, the better the chances are for trust development. Trust has an impact on information change and combining expertise and through them also on the possibilities to create added value (Miettinen et al., 2006, p. 56).

According to Vesalainen, the product or service provided by the company helps to define the contents of the collaboration. The state of exchange can determine how deep the linkage between the business parties is. The state of exchange can be defined in two ways: first, it must be considered how big part of the final product is provided by a specific business party and second, what kind of other functions the business parties provide each other. These two ways form a flow of services and depending on the business relationship, the flow of services can be considered either developed or undeveloped (Vesalainen, 2002, pp. 50–53).

2.2.1 Supplier relationships

The role of purchasing in an organization is getting an even bigger role in organizations than before. Earlier, the purchasing function wasn't considered critical in an organization but through the years the significance of purchasing has been understood, and nowadays it is considered a critical function in an organization. There are different types of supplier relationships, varying from short-term relationships where the rapid financial benefit is preferred to long term-relationships where financial benefits are expected after some time. It has also been researched that the buyer can decide how to approach the suppliers, either to always make new decisions regarding each new purchase or to rather trust on building a partnership with the supplier and through that gain longer-term relationships with the suppliers (Gullett et al., 2009, pp. 329–330).

Between buyers and suppliers, the conflict of price always exists. Since the buyer is aiming to purchase the products with the best possible price and the suppliers are wanting to get the best possible profit out of the purchase, price agreement is not always easy between the two parties. The buyer-supplier relationship requires continuous readjustment between the parties and trust plays a big role in a well-functioning buyer-supplier relationship (Gullett et al., 2009, pp. 329–330).

According to Inayatullah et al. (2012), a flourishing buyer-supplier relationship means that the good and the bad are shared and the parties of the relationship know what is required from them and what is their position in the relationship. In a functioning relationship, there is also trust and engagement as well as functioning sharing of information between the relationship parties (Inayatullah et al., 2012, p. 74).

Nurturing supplier relationships has a positive effect also on the end customer. Companies who value their suppliers and put the effort into their supplier relationships are more likely to deliver better service to their end customers and they are also more likely to be able to change their operations accordingly if any changes in the market occur.

Successful supplier relationships can even help to reduce uncertainties throughout the whole business process. Thanks to that, companies can deduct the amount of their suppliers, develop their forecasts regarding demand and improve their delivery performances (Hsu et al., 2008, p. 7).

2.2.2 Supplier Relationship Management (SRM)

Supplier Relationship Management, known as SRM, describes the process that includes the development, building, and consolidating of different types of suppliers. Suppliers can be divided into two categories: *out-suppliers* and *in-suppliers*. *Out-suppliers* are the kind of suppliers who are not yet in contact with the buyer firm. *In-Suppliers*, however, are those suppliers who pass the phase of out-suppliers and are building a relationship with the buying firm (Moeller et al., 2006, pp. 73–75).

The process of Supplier Relationship Management can be divided into three steps. The first one is called *Out-Supplier Management*, the second step is *In-Supplier Management* and the third and last one is *In-Supplier Dissolution Management*. The first step, *Out-Supplier Management*, includes mainly closely observing the suppliers not yet in a supplier relationship with the buying organization. The aim of this step is to keep options open with suppliers since it can never be stated that the state where the relationship currently is is long-lasting because the states of relationships can change over time. Out-Supplier Management also includes finding new out-suppliers and evaluating them (Moeller et al., 2006, p. 73).

The aim of the second step, *In-Supplier Management*, is to develop and sustain the supplier relationships with suppliers who are in the in-supplier phase. This second step has the aim of value creation and it is important to remember that different suppliers can offer different potential values and therefore suppliers need to be treated accordingly. It has been researched that a close relationship with the supplier is not the

single way of utilizing the potential of suppliers and also those supplier relationships who are not close can be beneficial for the buying company (Moeller et al., 2006, p. 75).

The *In-Supplier Dissolution Management* instead focuses on finishing the kind of supplier relationships that don't want to be continued anymore. This step includes ending a relationship in a way that no resources are being moved between the relationship partners. Supplier relationships are being ended and suppliers are being cut off for several reasons such as developing quality issues, improving service quality, trying to focus only on top-level suppliers only, or creating partnerships. Additionally, also the desire to be a more customer-oriented organization can be one of the reasons why a supplier is being abdicated (Moeller et al., 2006, p. 83).

2.2.3 The role of trust in supplier relationships

According to Narasimhan et al. (2008), trust in supplier relationships can have different roles and it can occur in different situations. Trust can be the starting point for building a relationship but it can also be a consequence of a functioning supplier relationship. It has been researched that the role of trust is central when talking about how the performance has benefited from different relational norms (RN). The research conducted by Narasimhan et al. (2008) shows, that RN has a great indirect impact on supplier performance with the help of trust. This research encourages the idea of trust being a tool with the help of which excellent performance can be gained (Narasimhan et al., 2008, pp. 25–28).

Trust in supplier relationships has been a much-researched topic in the business world during the past decades. A functioning long-term supplier relationship needs trust in order to function those supplier relationships that are built on trust can have major gains in their operations thanks to trust. These kinds of gains can be, for instance, reduction

of certain costs, improved productivity, and better benefits for both the suppliers and buyers (Yee et al., 2010, pp. 143–144).

2.2.4 The development of trust in supplier relationships

Day et al. (2013) write that trust in supplier relationships means that the parties of the relationship trust that the parties involved are keeping their words and act as they have promised. Trust also involves caring about each other and about the wellbeing of each other when making decisions. The strategy encourages maintaining trust in the relationship and trust is developed through operational behavior. Trust is beneficial for the profit and therefore it is desired by the supplier relationship parties to reach a trustworthy relationship with each other. Trust is also defining how the relationship parties treat each other (Day et al., 2013, p. 153).

Developing trust requires work from both sides of the supplier relationship and it is not an easy process that should be taken for granted. The development of trust is an agreement where both sides are involved and where an understanding of the common goals between the parties occurs. According to Yee et. al. (2010), there are several factors that contribute to trust creation, such as plausibility, competence, reliability, wholeness, information, and goodwill (Yee et al., 2010, p. 145).

When it comes to plausibility, it has been found that a good reputation is beneficial for trust-building. Competence instead, helps build trust since it is often a requirement in order to have trust in a supplier relationship. Like competence, also reliability contributes to trust-building since it is easier to trust a reliable partner than a partner that can not be relied on. Additionally, also integrity contributes to trust-building since it is one of the main starting points for trust. Trust will be more likely to occur when the relationship parties stick to commonly known and used norms and rules. Information sharing, however, contributes to the building of trust by making the flow of information

transparent, which encourages trust development. Lastly, goodwill can also be seen as an important factor in trust development since it is crucial in relationships to consider the other parties as well and not just aim for their own self-interest. This kind of behavior also encourages trust development (Yee et al., 2010, pp. 145–148).

2.3 Trust in business relationships

Researchers have different views of trust. According to some researchers, trust can be seen as a quality of a person or a group of people, whilst other researchers consider trust as an assumption of people's behavior in a relationship. Therefore, trust can be derived to be a result of the behavior of the business relationship partners. Trust is an aspect that is difficult to be valid with a certain model or definition that would cover all the possible areas of trust. Based on the different definitions of professionals, it can be stated that trust is a complex concept and it is impossible to define it with a simple description (Yee et al., 2010, pp. 144–145).

According to Blomqvist et al. (2000), trust is needed in order to cooperate with other organizations. (Blomqvist et al., 2000) Poppo et al. (2015) write that trust is a consequence of putting oneself in a vulnerable position and the trust that follows from both parties of a relationship putting themselves in this vulnerable position promotes the relationship performance. (Poppo et al., 2015) This requires believing that the relationship parties are reliable. This vulnerability is a sign of respect and trust towards the other party of the relationship and it means that the other party is trusted to act and share information with. Being vulnerable is always risky and when taking the decision to be vulnerable and trust the other party of a relationship, it is done with the expectation that the other party of the relationship performs tasks that are crucial for trust without monitoring that the actions are actually taken and performed as agreed (Seppänen et al., 2014, pp. 4–5).

Trust between the parties of a business relationship is a complex issue and it can be developed through different occurrences, for instance through good performance outcomes and investing in the development of the relationship parties. Efficient management of these relationships is in a key role in the development of trust between the relationship parties and when the management is successful, trust and permanent relationships can result from that (Narasimhan et al., 2008, p. 25). In B2B relationships such as buyer-supplier relationships, trust is essential in order to build a long-term relationship. Trust is considered a factor decreasing inefficiency and enhancing to remove the opportunistic mindset. Trust can be considered to increase collaboration, ensure the continuity of future purchases and increase the chances of having committed and loyal customers (Kusari et al., 2013, p. 120).

When doing business with different business parties, it is important to have an idea of how trustworthy the business partners are and at the beginning of a possible business relationship, evaluate also the behavior of the other business party. This evaluation influences the future of the business relationship and whether the parties want to start a business relationship or not (Taminiau et al., 2016, p. 246).

According to Inayatullah et al. (2012), having trust in a relationship means that the parties of the relationship are aware of the fact that each party of the relationship is committed to working towards a common goal. Trust makes doing business easier and it also increases the satisfaction of customers as well as the satisfaction of employees. Trust includes information to be shared without hesitations and it also includes open communication. If the aim is to build a long-term relationship, it is crucial that the parties of the business relationship agree on the open ways of communication and information sharing since these need to be mutually agreed upon in order for the relationship to function effectively (Inayatullah et al., 2012, pp. 73–75).

According to Blau (1964), there are two aspects that build the foundation of trust, the fact that the relationships are recurring and that the importance of the goals of the

relationship grows over time. Reliance on each other is also an important factor of trust and it means that the behavior of the relationship parties has an impact on the performance of each of the parties. Inter-organizational trust means that even though there always exists both financial and social risks in relationships, the risks are put aside and trust is placed between the relationship parties (Seppänen et al., 2014, p. 4).

Inter-organizational trust can result in three different types of outcomes: *direct economic outcomes*, *indirect outcomes,* and *relational outcomes*. The *direct economic outcomes* of trust between organizations can be related to the cost structure, the subjective perspective of evaluation, the economic perspective, and the perspective of the business framework. *The indirect outcomes* can be related to factors such as the behavior of business partners, cooperation, and interdependence between business partners. As *relational outcomes* can be considered factors such as the loyalty of business partners and promotion for changing and developing (Delbufalo, 2012, pp. 385–387).

2.3.1 Building trust

Communication is in a crucial role when building trust in business relationships. It can be stated that aspects such as precise information, explanation of acts, and exposed communication are impacting the trust in an organization. One of the most crucial elements of building trust is open communication. According to Tzafrir et al. (2004), if communication is efficient and well-functioning and if people feel that they can easily communicate and that they are heard, these result in a trustful atmosphere, which leads to increased trust. (Seppänen et al., 2014, p. 10)

In order to build trust, factors such as *goodwill* and *competence* are needed. Goodwill signifies that the party to be trusted acts morally and has good intentions with others. Goodwill is important because it helps the other party of the relationship to accept its vulnerability which always comes along with trust. Different capabilities and knowledge

are referred to as competence and it is especially important when different competencies are the key motive of a relationship. Both goodwill and competence are crucial when building trust between organizations (Blomqvist et al., 2000).

A third factor can be inserted into the concept of trust, the *behavior*. The behavior, alongside goodwill and competence, is a crucial factor when building trust. Behavior proves that the relationship party can be trusted, actions speak for themselves and when the relationship party shows through their behavior that they are acting as promised, it also increases the relationship party's trustworthiness. Behavior includes visible actions such as signs, e.g. regarding information sharing. With time the relationship partner's behavior changes to be more visible and thus easier to assess (Blomqvist et al., 2000).

The foundations of trust that can be considered competence, goodwill, and behavior consist of several different sub-areas. For instance, when referred to competence, realistic judgment, the previous reputation of an organization, and evaluation of an organization's previous difficult projects might take place. Goodwill, instead, might consist of aspects such as reliability, values, relationships, and chemistries between people and the whole organizational structure. Behavior can consist of aspects such as communication, concerns, and organizational commitments. (Blomqvist et al., 2000).
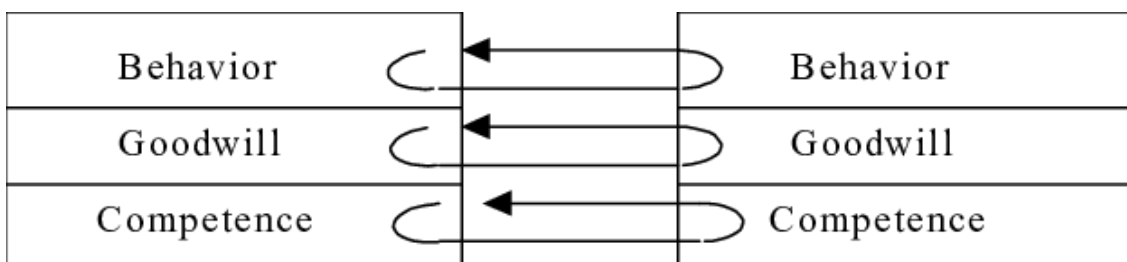
Figure 2. Development of trust through layers of trustworthiness (Blomqvist et al., 2000).

According to some researchers, an additional factor that can be considered as a crucial factor when building trust is *self-reference*. It is referred to as the awareness of a relationship party about its competence and ability and how well they are able to

evaluate themselves. Blomqvist (2000) considers self-reference as a dimension of trust. Self-reference also includes the capability to compare and evaluate yourself compared to others and set values and aims and be able to prioritize the most meaningful goals and actions and create values related to them (Blomqvist et al., 2000).

According to researchers, it is not clear whether it is possible to create trust deliberately. For instance, Sydow (1998) considers that creating and maintaining trust is hard and therefore it does not happen deliberately. However, since the circumstances for creating trust could be affected, thus it can be considered that they also could somehow be managed. Sydow (1998) also sees that although the creation of trust can not be affected, the relationship parties should still pay attention to their behavior and act in a way that enhances the development and maintenance of trust between business parties (Blomqvist et al., 2000).

Developing trust is a time-consuming process and requires co-creation. Trust is also seen as the most crucial aspect of collaboration between business parties. In addition to competence, goodwill and behavior, also another aspect can be considered to have an influence on the creation of business relationships' trust: emotional connection. According to Taminiau (2016), if the aspects of competence, goodwill, and behavior lead to desired outcomes, it is likely that one part of the business parties will have the courage to take the next step in the relationship, put themselves in a vulnerable position and begin the process of building trust. Trust needs to be cherished and one way to do that is to make sure that the expectations of both business parties meet (Taminiau et al., 2016, pp. 248–249).

2.3.2 Experiencing trust

People experience trust in different ways. Jones and George (1998) state that positivity encourages a positive opinion about the other relationship party and it also contributes

to trust creation. When experiencing trust, different value systems are in a central role in terms of how trust is experienced. Values can be considered to have a susceptibility to trust which differs from the trust that is based on certain situations or occurrences. Values vary depending on organizations and individuals and since they are established, they strongly contribute to the experience of trust. Even though values are established and set for the long term, there is a possibility that they will change especially as a result of bad experiences related to relationship partners' conduct.
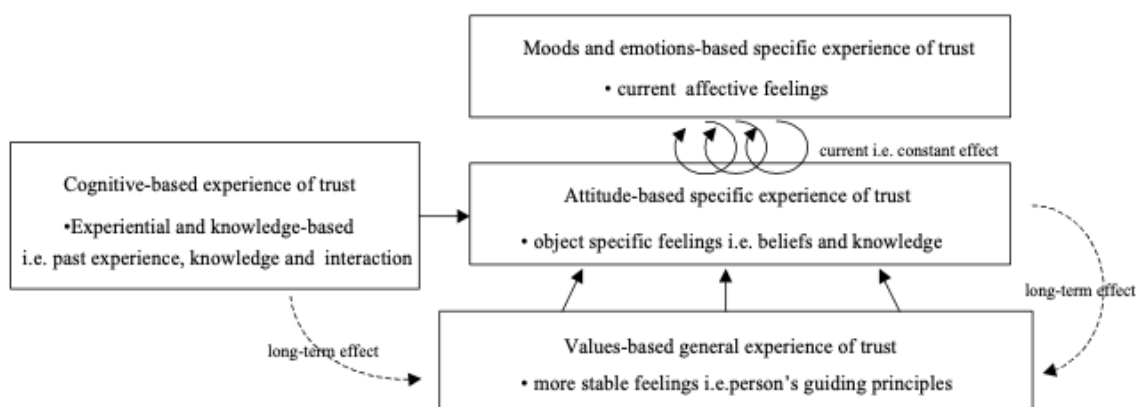
Figure 3. Experiencing trust (in accordance with text of Jones and George 1998) (Blomqvist et al., 2000).

Attitude can be referred to as information and notions about people or organizations. Attitudes can also be considered as factors that help to define other organizations and their trustworthiness. *Moods and emotions* are not as long-term factors for experiencing trust as attitudes and values but they are helpful when getting first impressions of others. First impressions are crucial for building trust since they give a direction for the development of the relationship. Moods and emotions are important also in such business settings where decisions need to be made rapidly and where there are uncertainties in the business relationships. Although moods and emotions are provisional, they are important factors for experiencing trust. There is collateral importance between cognitive trust and affective trust. The emotional part of trust explicates the major effect of trust that has been broken (Blomqvist et al., 2000).

When talking about different perceptions of trust, it is crucial to keep in mind that trust is perceived differently by different people. The predisposition of trust depends on the previous knowledge and values of a person. For instance, some people highly value reputation and for them, it is an important factor of building trust whereas for other people reputation is not central when developing trust. Organizational culture is in a central position when choosing to assess other organizations based on their trustworthiness since an organizational culture shows to parties outside of an organization what kind of values they have and whether they are trustworthy or not. Organizational culture reflects what is happening inside of an organization (Blomqvist et al., 2000).

2.3.3 Loss of trust and distrust

According to Seppänen & Blomqvist (2006), it can be argued that distrust and trust are the extremities of each other. They exclude each other which means that it is only possible to have a high level of either of them or a low level of either of them. Some researchers state, however, that it is indeed possible to have a high or low level of both of them at the same time since they are two separate scales even if related to each other (Seppänen et al., 2006, p. 181). Distrust can be harmful for an organization since it can result in for instance legality issues and undermine the authority of managers. (Kramer et al., 2004, p. 2) It is normal that the level of trust varies in business relationships and it is part of the normal progression of the relationship and does not, therefore, affect the survival of the relationship. This progression of the level of trust is known as the cycle of trust (MacDuffie, 2011, p. 39).

There are different terms to describe lack of trust in business relationships. Some terms used are mistrust and distrust. Even though the terms are both related to the same topic of loss of trust, their meaning is slightly different. When referred to mistrust, it means that the lack of trust has been born because of bad experiences in the past. Distrust

instead, means that trust has not yet been detected and therefore distrust is still prevailing (MacDuffie, 2011, pp. 39–40).

When speaking of inter-organizational trust, there are two types of trust, *calculative* and *non-calculative trust*. *Calculative trust* is referred to when trust is not based on a person's identity but instead it is based on a bigger picture, the whole organization. *Noncalculative trust* is the opposite of calculative trust and it is based on a person's identity. If an infringement occurs in trust, it has been researched that those kinds of relationships that include calculative trust are more likely to survive the setbacks than those kinds of relationships that have been built on non-calculative trust. This is because non-calculative trust is based on identities and is thus more personal than calculative trust and therefore an infringement in trust may possibly feel like a betrayal (MacDuffie, 2011, pp. 39–40).

According to Kramer et al. (2004), distrust can have a negative impact on the prevailing authorities inside an organization. (Kramer et al., 2004, p. 2) Even though trust and distrust are opposites, it is still possible to have a bit of both at the same time in inter-organizational relationships. When multidimensional long-term relationships face adversities, it is normal that the relationship has trust in some areas of the relationship and distrust in others. In order to be able to renew the relationship after experiencing adversities, it is crucial to keep in mind the changing nature of multidimensional relationships where it is normal that the state of the relationship changes from positive to negative (MacDuffie, 2011, p. 40).

Official contracts can have both a positive and a negative influence on inter-organizational relationships' trust. On one hand, contracts ensure that the relationship parties perform as agreed and secure that one party can trust the other. On the other hand, contracts may negatively impact the trust between relationship parties because it could be seen that the desired behavior of a relationship party is a result of signing a contract and not a result of genuine good behavior. It has been researched that there is

a link between trust and contracts and this trust can be described as being open for new trades with new business partners. Adding contracts to the phase where trust is being developed in new business relationships is recommended since it furthers opportunities for learning and contributes to keeping the risk of overembeddedness as low as possible (MacDuffie, 2011, p. 40).

It is easy to assume that trust reflects always something positive and distrust something negative. Thus, trust is considered as a positive and distrust as a negative state. According to Seppänen & Blomqvist (2006), this polarization is not always this clear. Distrust can be referred to as "positive expectation of injurious action" in terms of what kind of actions one party expects from another and distrust causes people to take protection measures because of the assumptions related to distrust. As mentioned before, trust and distrust can occur simultaneously and they both are also considered as basic elements of dealing with complexity and doubts (Seppänen et al., 2006, p. 186).

2.3.4 Trust and relationship length

In the business relationship, there is always the aspect of the future involved and what is wanted from the relationship in the future. The relationship parties are aware of the length of their possible relationship in the future and that can influence how they behave with each other. It is recommended to evade such negotiations, in which the other party is considered as the winner and the other as the loser, specifically if there is a future for the business relationship. This kind of "winner-loser" confrontation is to be avoided since it can negatively influence the relationship's quality. If a negotiation results in one party being a clear winner, the other party who likely has felt to be treated unfairly in the negotiation, most likely will not want to collaborate again (Mayer, 2007, p. 130).

It has been found that people's behavior is closely linked with their expectations regarding the business relationship in the future and how much collaboration and

interaction is needed for the relationship in the future. If it seems that there is little to no collaboration with the relationship party in the future, the behavior can become risky without concerns about what future damage the behavior might cause since the relationship parties probably will not collaborate again. This kind of behavior is known as "end-game strategy" where the focus is on current profits without worries about the future. If the business relationship is known to be ending, the behavior of the business parties might change drastically (Mayer, 2007, p. 130).

2.4 The importance of trust in business relationships

Business operations are getting more and more international, and globalization has brought a permanent change to the business world. Business is conducted to an increasing extent online and face-to-face meetings are not always possible when doing business with different business parties. Therefore, the importance of trust has increased because business is done online, and people need to be trusted without necessarily ever meeting the business partners in person. The significance of trust has already increased massively compared to the times before globalization and the importance of trust in a business relationship can not be highlighted enough (Bryant et al., 2002, p. 33).

According to Bryant et al. (2002), especially in B2B relationships, the role of trust is significant. (Bryant et al., 2002, p. 33) Trust is crucial for building networks and business relationships. De Klerk, however, sees that it is irrelevant which kind of business relationship is in question, the importance of trust remains the same. Supplier relationships are a type of relationship where trust is specifically important but also in other business relationships such as with customers trust is equally important. Trust can be considered particularly important at the beginning of a new business relationship and in the relationships' building phase (De Klerk, 2012, p. 5854).

Trust makes doing business easier since globalization followed by digitalization changes the business environment and opens new doors. When business parties are trusted, operating globally gets easier and opens many new possibilities to expand the business. When trust occurs, it can encourage the creation and stability of new B2B business relationships (Bryant et al., 2002, p. 33). Tyler et al. (2006) write that trust is a helpful tool for risks and uncertainties and the importance of trust in business relationships is a dimension that is irreplaceable and no other dimension can completely replace it. Trust is important also because it creates a competitive advantage (Tyler et al., 2006, p. 335).

According to Piricz (2018), cooperative trust can be considered a factor to strengthen trust. Trust becomes increasingly important when aims for collaboration and shared benefits are being discussed and agreed upon. Trust can be strengthened through conflict situations or through challenges that test the business relationship (Piricz, 2018, p. 285). Trust results as confidence and this confidence enables the business relationship parties to overcome short-term challenges and reach long-term goals together. (Wang et al., 2008, p. 820)

2.4.1 The importance of trust in the beginning of a business relationship

At the beginning of a new business relationship, it is common to have uncertainties regarding the new business party. Even if there is information available about the party and the experiences gained about the new business party are positive, building trust takes time and it does not automatically come along the new business partner no matter how positive the suppositions are and how reliable the new business partner may seem. In this kind of case, institutional protection can play a crucial role to ensure the safe development of trust (Bachmann et al., 2011, p. 293).

As time passes, face-to-face meetings have a more important role in terms of trust-building than previous assumptions and behaviors that guide the building of trust in a

certain direction. At the beginning of a relationship it is however important for the managers to know that if needed, there are legal structures and arrangements to secure a safe development of a new business relationship. Mayer and Argyres (2004) confirm this point of view saying that if trust is built only with the help of contracts, it is not the desired way of building a partnership. When making contracts in the early stages of a business relationship, there is a risk that the contracts are not meticulous enough since the business partners are in the stage of getting to know each other and there can be a lack of crucial information. Mayer (2007) adds that the needed information will be gained with time and several interplays between the parties and therefore it is unlikely that all the information needed is there at the beginning of a relationship. (Mayer, 2007, p. 129) In this kind of case it is good to have the support of different safeguards to ensure the desired development of the business relationship when there is not enough information about the other business party (Bachmann et al., 2011, p. 293).

At the beginning of a business relationship, it is crucial to focus on the factors that enable trust development. One of the most important factors are certification, different standards, and regulations. Possibly also reputation could be one of the key factors to focus on. Other factors, such as practices related to a community are less relevant in the early stages of a business relationship because they become more accurate in later stages of a business relationship when the relationship is already more stable than at the beginning of a relationship. Lewicki and Bunker (1996) also note that in the early stages of a new business relationship, the trustor leans on calculative operations such as certification and different types of regulations. These tools help to assess the potential business party's trustworthiness (Bachmann et al., 2011, p. 293).

2.4.2 Trust and business relationship success

Trust is a factor that can be considered an informal understanding helping to combine and create the basement for the creation and development of functioning and successful

business relationships. To have successful business relationships, time and effort are needed to be put in the relationship. Developing a business relationship is a process that requires trust and understanding from both sides of the relationship party. Trust has a strong impact on the business operations and their development (De Klerk, 2012, p. 5845–5846).

The role of trust in B2B relationships can not be highlighted enough. It is a crucial factor for the business relationship success and trust is required to successfully coordinate with other businesses. Information sharing is a crucial element of a business relationship and the information shared is often confidential and therefore trust is needed to be able to communicate and operate between organizations. Trust will determine to what extent information is shared between businesses and depending on the level of trust, the type of information change can vary. The level of trust can also be considered to have an impact on the whole business relationship network. Understanding the importance of trust in building networks can help businesses to know how to improve their level of trust and thus improve the success of their business networks and whole business operations. (De Klerk, 2012, p. 5846).

Delivery accuracy is a crucial part of business operations and therefore it also plays a key role in the business relationship success. On-time deliveries influence and create a company's competitive advantage and thus they should be the goal of customer relationships. Customers expect a certain type of service for the value of their money and therefore delivery accuracy is a dimension that should be nurtured in order to gain and sustain competitive advantage (De Marco et al., 2011).

On-time deliveries and delivery accuracy are both aspects highly appreciated by customers. (Asthana et al., 2020, p. 268) In addition to delivery accuracy, also the delivery of a product from the original source is crucial. (Hasan et al., 2018, p. 2) Since customers highly appreciate their products being delivered on time, it is a sign of reliability that the products are delivered accordingly. Delivery accuracy also strongly impacts customer

satisfaction and should thus be nurtured and considered a priority in the business relationship (Zakeri et al., 2017, pp. 373–374).

3 METHODOLOGY

3.1 Research design

Qualitative research is a research type where the experiences, demeanors, interplays, and social contexts are analyzed without using quantification or statistics to conduct the analysis. (Fossey et al., 2002, p. 717) A qualitative research method was chosen for this study since it enables the respondents to tell their own experiences and interpretations of different situations and thus gives space for a more personal touch for the analysis. Qualitative data enables getting a good overview of the issue and since the focus point of the research questions is trust, which has two sides: it can be strengthened or weakened, a comparative research method was chosen for this study to compare these two sides. A comparative research method focuses on finding resemblances and differences between the analyzed subjects. (Esser et al., 2017, p. 4)

The interview method of the research is a structured interview where the interview questions are determined beforehand and which enables the interview to follow a precisely pre-defined flow. A structured interview differs from a semistructured interview in the way the questions are formed. Where in semistructured interviews the questions can be edited along the way and additional questions can be asked, a structured interview follows a strict sequence (Segal et al., 2006, p. 122). Since the data collected consists of several responses, the structured interview method helps the structure of the interview to remain the same for all the respondents and leaves no space for the interviews to go past the topic.

3.2 Data collection

The data for the work is collected through questionnaires and thus the work belongs to qualitative research design. The surveys include questions related to the pandemic, delivery problems, and trust in supplier relationships, and the surveys are sent per e-mail to people working in several different positions where they work closely with suppliers and sourcing. The questions on the survey include open questions where the interviewees are free to write their own thoughts and experiences and multiple choice questions where the interviewee has to choose one or several answer options. The focus of the questions of the survey is on the time period of the Covid-19 pandemic, starting from the spring of 2020 since the study aims to find out how trust in supplier relationships has changed during Covid-19. The data collection was executed anonymously and the respondents for the survey work in several different organizations in the Finnish technology industry.

3.3 Data analysis

The data in this study will be analyzed through different categories that are formed based on the data collected. The responses related to low and high trust suppliers have been divided into different categories based on their subject and these categories are then analyzed and they form the base for the analysis. The categories related to low trust suppliers are then compared to the categories related to high trust suppliers and thus a comparative analysis will be carried out to find out what kind of reasons can be found for the maintenance of trust or even for the strengthening of trust and vice versa, for the weakening of trust or for the complete loss of trust. The purpose is to find out what kind of behaviors/actions have resulted in the strengthening or maintenance of trust and what kind of behaviors/actions have caused the weakening or the loss of trust. Additionally, it will also be analyzed whether the organizations interviewed have even had delivery problems caused by Covid-19 and if not, it is also important information for

the study to find out how rare or common it has been not to have experienced any kind of delivery problems as a result of the pandemic.

3.4 Validity & Reliability

According to Heale et al. (2015), when research is conducted, the aspects of *validity* and *reliability* should be taken into consideration since they ensure that the research can be trusted. Validity is referred to the accuracy of the research object and whether it occurs exactly in the way and form as intended (Heale et al., 2015, p. 1). There is not only one correct definition for validity since researchers describe it differently. (Winter, 2000, p. 2)

Validity of a study measures the truthfulness and objectivity of research. (Golafshani, 2003, p. 602) In qualitative research, the participants are the aspect to be measured in terms of validity. In qualitative research, it is assumed that the reality presented by the participants in the study is the actual reality (Creswell et al., 2000, p. 125). Validity is an aspect that does not have a clear definition in qualitative research and according to some researchers, validity can not be applied to qualitative research. However, researchers know the need to have a qualifying check to evaluate their research. According to some researchers, validity as a concept needs redefinition in qualitative research (Golafshani, 2003, p. 602).

When it comes to the validity of the study, the variation of the questions in the questionnaire ensures a diverse data outcome. The interviewees are presented predetermined questions with diverse answer options differing from multiple-choice, where there is no space for the interviewee to invent their own response options, to open questions where there is space for their own interpretations. Additionally, the theoretical framework of the study is linked with the interview questions to ensure valid findings regarding the supplier relationships' trust.

The other crucial aspect of conducting research is *reliability* which includes the consistency of the measure if used repeatedly and whether the results will be repeated the same. This means that if a respondent is asked certain questions and gives certain responses once, the responses should be roughly the same if the same questions are asked again (Heale et al., 2015, pp. 1–2). When measuring the reliability of qualitative research, considering whether or not the research is trustworthy, is required. According to some researchers, reliability's role in qualitative research can be considered irrelevant since it focuses on measurements that are typical in quantitative research. Instead of reliability, the term dependability fits better with qualitative research according to researchers (Golafshani, 2003, p. 601).

The reliability of the study was taken into account for instance through the questionnaires, the interviewees were given sufficient time to fill out the survey before returning it in order to ensure that the respondents would find the proper time needed to fill out the survey. This facilitates the collection of truthful information since the respondents are not in a hurry to respond which in turn often leads to misinformation. Another aspect contributing to the reliability of the study is the diversity of the respondents. The respondents come from several different organizations and can thus give more reliable results of how several organizations see the supplier relationships' trust during the pandemic than if the study was carried out as a single case study focusing only on one organization and its operations. Additionally, the research was conducted objectively what the graphical presentation of the findings reflects as well as the direct quotations from the interviewees' responses.

4 ANALYSIS

4.1 Structure of the analysis

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        │       4.2 GENERAL PART          │
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        ┌─────────────────────────────────┐
        │      4.2.1 Respondents'         │
        │         introduction            │
        └─────────────────────────────────┘
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        ┌─────────────────────────────────┐
        │     4.2.2 Perceptions of trust  │
        └─────────────────────────────────┘
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        ┌─────────────────────────────────┐
        │      4.3 COMPARATIVE PART       │
        └─────────────────────────────────┘
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        ┌─────────────────────────────────┐
        │   4.3.1 Delivery problems during│
        │   Covid-19 with different       │
        │   suppliers                     │
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        │   4.3.2 Covid-19 and changes in │
        │   different supplier            │
        │   relationships                 │
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        ┌─────────────────────────────────┐
        │   4.3.3 Covid-19 and trust in   │
        │   different supplier            │
        │   relationships                 │
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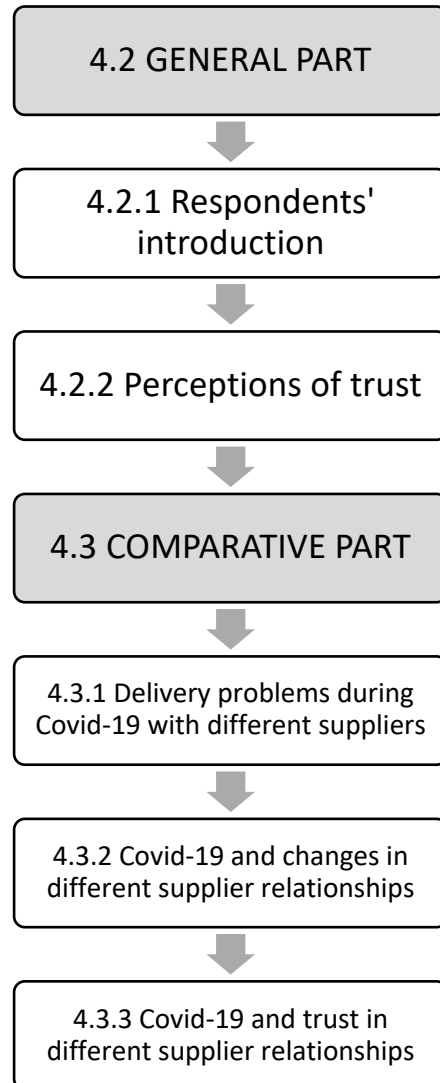
Figure 4. The structure of the analysis.

The analysis is built up around two main parts: the *general part* and the *comparative part*. The *general part* consists of the introduction of the respondents and their perceptions of trust. The introduction consists of the educational background of the respondents and the length of their career in the company they are currently working at.

The perceptions of trust -part includes various aspects of trust in business relationships and how the respondents perceive them.

In the *comparative part*, the respondents' responses to questions related to low trust supplier relationships and high trust supplier relationships are compared. This part consists of three categories: delivery problems during Covid-19 with different suppliers, Covid-19 and changes in different supplier relationships, and Covid-19, and trust in different supplier relationships. In the comparative part, the questions presented in the questionnaire were always the same for both, low and high-trust supplier relationships, which makes it easier to compare the answers and analyze them.

4.2 General part

4.2.1 Respondents' introduction

The questionnaire was sent to people working in the technology industry and altogether 50 people responded to the questionnaire. The questionnaire began with questions related to the respondents' educational background and how long they had been working for the company. Since the data collection was carried out completely anonymously, the questions related to the respondents were limited to these two aspects.

The respondents had different educational backgrounds in terms of the field of education. Most of the respondents had business related background, followed by engineering as the second most common field of educational background. Also, administrative sciences, middle school, and secondary school were mentioned as fields of education. The educational levels of the respondents were varying as well. The majority had completed their master's degree and bachelor's level was the second most

common educational level to appear among the respondents. Also, secondary school and middle school were again mentioned.

When it comes to the duration of the respondents' career in the company they are working in, most respondents were relatively new in the company and they had been working 0–5 years in the company. This was followed by those respondents that had been working 11–15 years or over 16 years in the company leaving the group of respondents that had been working 6–10 years in the company as the smallest group of respondents. In other words, most respondents were either relatively new in the company or had already gained a respectful amount of experience in the same company.

Table 1. Respondents' introduction.

Respondent number	Educational field	Educational level	Duration of the career in the company
1.	Business	Master	29 years
2.	Business	Master	27 years
3.	Business	Master	28 years
4.	Business	Master	2 years
5.	Engineering	Master	9,5 years
6.	Engineering	Bachelor	11 years
7.	Engineering	Master	8 months
8.	Engineering	Bachelor	7+ years
9.	Business	Master	2 years
10.	Engineering	Bachelor	2 years
11.	Business	Master	12 years
12.	Business	Master	5 years
13.	Engineering	Bachelor	1 year

14.	Business	Master	4 years
15.	Engineering	Master	10 years
16.	Administrative sciences	Bachelor	18 years
17.	Engineering	Bachelor	10 years
18.	Middle school	Middle school	30 years
19.	Business	Master	5 years
20.	Engineering	Bachelor	33 years
21.	Business	Master	13 years
22.	Business	Bachelor	11 years
23.	Business	Master	15 years
24.	Business	Bachelor	1 year 4 months
25.	Engineering	Master	1 year
26.	Engineering	Master	13 years
27.	Business	Master	14 years
28.	Business	Master	23 years
29.	Engineering	Bachelor	15 years
30.	Engineering	Master	18 years
31.	Engineering	Master	14 years
32.	Engineering	Bachelor	3 years
33.	Secondary school	Secondary school	6 months
34.	Engineering	Bachelor	3 years
35.	Engineering	Master	8 years
36.	Engineering	Bachelor	16 years
37.	Engineering	Bachelor	2 months
38.	Business	Bachelor	33 years
39.	Engineering	Bachelor	11 years
40.	Engineering	Master	11 years
41.	Engineering	Bachelor	1 month

42.	Business	Master	2 years
43.	Engineering	Bachelor	1,5 years
44.	Business	Bachelor	5 years
45.	Engineering	Master	1,5 years
46.	Business	Master	3,5 years
47.	Business	Master	2 years
48.	Engineering	Master	5 years
49.	Business	Master	29 years
50.	Business	Master	5 years

4.2.2 Perceptions of trust

When the respondents were asked to define trust in business relationships, several different responses came up. The respondents were asked questions regarding how they perceive the role of trust in business relationships, how they see the variety of trust, how according to them trust is built and lost. The responses on each of the questions were sorted based on their subject and different categories were formed based on the subjects. Seven categories were formed based on the responses and subjects found regarding the role of trust in business relationships: *business relationship, profitability and success, personalized view of trust, the importance of trust, visibility and certainty, trust as a basic requirement* and *trust depends on suppliers* and the analysis is carried out based on these categories.
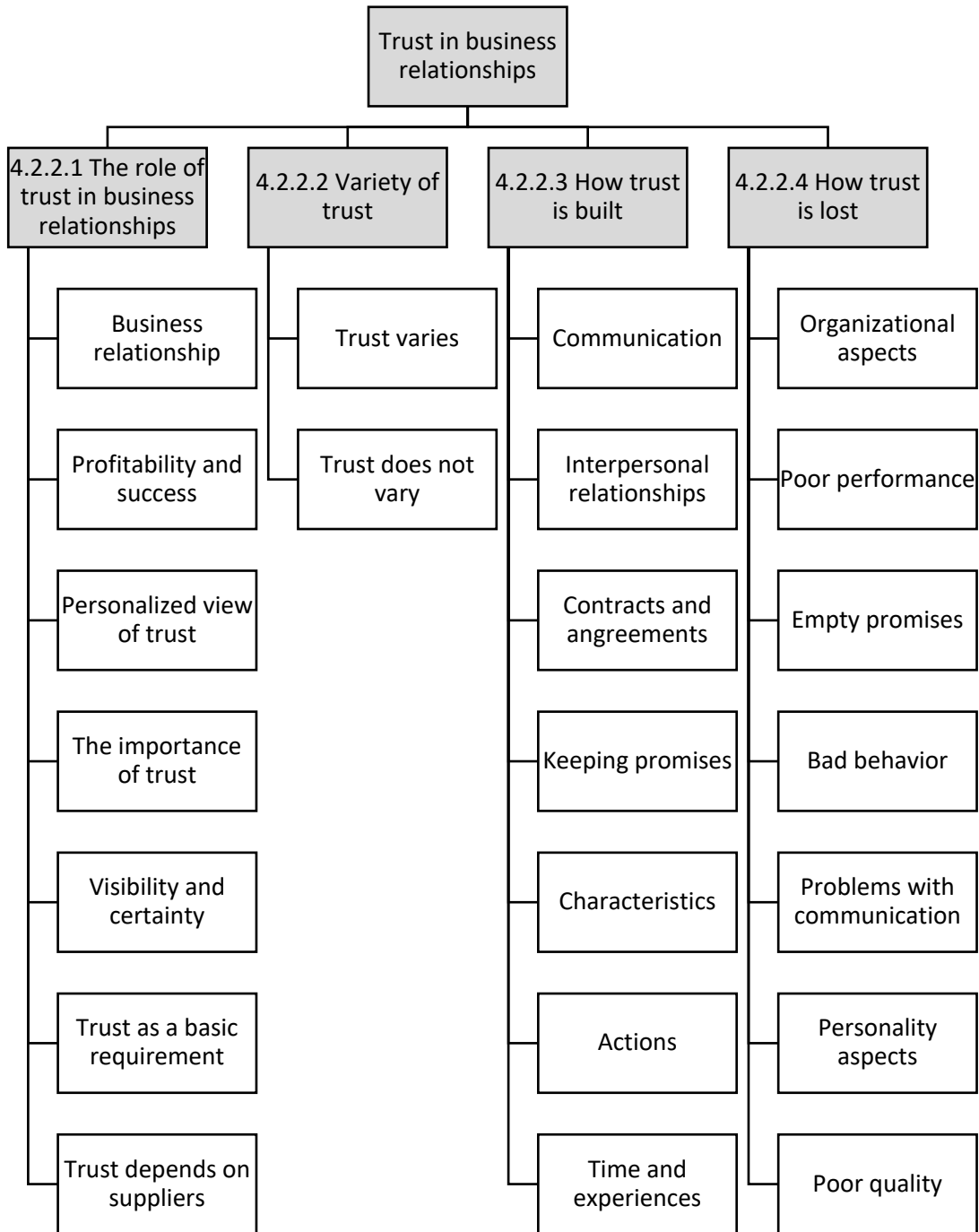
Figure 5. Perceptions of trust in business relationships.

The role of trust in business relationships

Many respondents consider trust as a key part of a functioning *business relationship*. According to the respondents, trust is crucial in business relationships because business relationships need cooperation in order to function and cooperation needs trust. Also, according to many respondents, in order to develop a business relationship, trust is needed. The necessity of trust in business relationships was highlighted and many respondents experienced that a business relationship is not possible without trust. Trust was considered especially important in long-term business relationships.

Profitability and success were also mentioned when talking about the role of trust in business relationships. Trust was considered as a key to success and as a basic element of high-quality operations. In big projects that include a lot of capital, trust was considered especially important in order to avoid any risks. Long-term business planning was mentioned as impossible without trust.

A *personalized view of trust* was also mentioned in the responses. According to some respondents, trust is built between people, and therefore trust depends on the people and therefore organizational changes might either strengthen or weaken trust in a business relationship. Additionally, a good relationship and trust between the people in the buying party and the supplier were mentioned as crucial for the business's success.

Most of the responses were linked with *the importance of trust* in business relationships. Trust was considered to be essential in business relationships and it was considered to have a major role in business relationships. According to the respondents, sometimes the importance of trust is underappreciated since its role is extremely important. The importance of trust during hard times and critical situations, such as the Covid-19 pandemic, was also highlighted. The importance of trust was mentioned to vary depending on the business relationship. Partnerships were mentioned to be more crucial in terms of trust than generic suppliers.

Trust was also considered as the creator of *visibility and certainty*. The respondents also mentioned that this is not always the case. Sometimes trust can create a fake sense of security, especially if trust is not built on a solid basis.

Trust was also seen as *a basic requirement* for a business relationship. The respondents mentioned that everything can not be defined with agreements and people must be able to trust that different parts of the business relationship do their parts and contribute as agreed and also show flexibility if needed. It was also mentioned that additionally to being able to trust that suppliers and different parts of the business relationship do their parts, people must trust that the business parties are honest with their communication. According to the respondents, without trust, the information and knowledge needed might not always reach all parties of the business relationship. It was also mentioned that if the supplier can not be trusted, it will be difficult to do business with other business partners since there is uncertainty regarding the arrival of different raw materials and goods that are crucial for the other business operations. Trust was also considered as one of the most important values in business life.

Several respondents saw that *trust depends on suppliers*. For instance, it was mentioned that the amount of trust depends on the duration, size, and how important the business operations are strategically. According to the respondents, some suppliers are more trusted than others, depending on the length and level of business operations. With core suppliers and partners, trust was considered a key whereas in other types of relationships less important. Some respondents mentioned that they only aim to deal with suppliers they can trust. Several people also mentioned that trust is not a permanent state and you have to make an effort to sustain trust in a relationship. Also, challenges were mentioned to be testing the relationship, which is shown in the direct quotes from the responses presented below.

> "Trust is not permanent or lasting stage of business relationships, and it is tested time to time, usually when challenges occur." (Respondent 42.)

"Challenges alone do not mean that trust is lost but the way the challenges are being handled is the key." (Respondent 42.)

The respondents also noted that trust might change during the business relationship both for better and for worse. Trust was noted to be fragile, it can be easily gained and also easily lost. However, when trust is lost, it was mentioned to be nearly impossible to regain it.

Variety of trust

Most of the respondents think that *trust varies* depending on different aspects, such as the size of the project, the amount of capital involved in the business, duration of the operations, strategic importance, common history, business volume, risks, and personal relationships. Also, company cultures, cultural differences, and the nature of the relationship were named as factors impacting the level of trust. It was also highlighted that with partners, long-term business relationships and core suppliers high level of trust is needed, and for other suppliers such as generic suppliers and those suppliers who can easily be replaced, a lower level of trust might be acceptable.

Only a few respondents saw that *trust does not vary.* They justified their view by saying that trust is a basic requirement for all suppliers. Also, it was mentioned that the respondents have a good relationship with all of their suppliers and that is why they did not consider trust to vary.

How trust is built

Several respondents mentioned *communication* as a key factor in building trust. Good, regular, active, and open communication was underlined in every situation and it was

mentioned that open communication regarding negative issues can also be one aspect of building trust. According to some respondents, setting clear milestones and their follow-up enhances the development of trust. Transparency in communication was also highlighted.

Interpersonal relationships were also considered a factor of trust-building. According to the respondents, different actions, behavior, and also different personalities naturally influence trust. Good personal relationships, open relationships, close contact, and a sufficient amount of face-to-face meetings were considered to have a positive impact on trust. It was also mentioned how important it is to work with the right people since trust is all about relationships between people.

A few respondents mentioned *contracts and agreements* to be important when building trust. According to them, contracts and agreements help to set clear rules and goals for the collaboration, and they were mentioned to be a good basis for cooperation. They also mentioned that contracts and agreements that both parties follow and respect are a basis for trust.

Keeping promises came forward in many responses. Performing as agreed was considered a basis for trust. Keeping promises regarding deadlines and things to happen as agreed were also considered important for trust-building and sustaining. It was also mentioned that sometimes one needs to be tough with another since it will do good for the relationship with time.

Characteristics were also mentioned as factors to influence trust-building. Honesty, openness, availability, capability, flexibility, and reliability were considered important characteristics for developing trust. Also, transparency in every situation and stretching when needed were mentioned as important characteristics in terms of trust.

Actions were the most often mentioned category affecting trust-building. According to the respondents, on-time handling of claims, good track record, clear milestones, multilevel collaboration, good and stable performance and delivery performance, planning future actions, and support when challenges occur were appreciated actions when building trust. Additionally, also on-time payments, keeping delivery times, market understanding, steady pricing, good customer service, good quality in actions, desire to serve, professional handling of exceptions and operations, achievements, and routines were appreciated. Admitting mistakes was also highlighted as an important action in terms of trust.

Time and experience related aspects were also mentioned in some responses. Past and long common history, financial background, long time partnerships, common positive experiences, and company background were considered important factors related to time and experiences influencing trust. Time, in general, was also considered crucial to help trust development.

How trust is lost

One factor that causes loss of trust is according to the respondents, different *organizational aspects*. Only the fact that an organization is well known and famous does not always mean that they are a good choice or trustworthy. Also, organizational changes and changes in management were mentioned to possibly cause loss of trust if the changes are not in favor of the business relationship.

Poor performance was the most mentioned factor for losing trust. Constant changes in delivery dates late deliveries, constant poor performance, long response times, self-interest, avoiding when mistakes occur, changing prices for self-interest, changing decisions without informing the other party about that, constant challenges, and poor customer service mentioned to contribute to loss of trust. The direct quote below

describes a situation of negligence that was mentioned to be negative for the business relationship's trust.

> "Finding reasons for "why not" more than trying to find "how to"." (Respondent 39.)

Constant challenges were also not appreciated or desired. When problems occur, if the other business party is left alone, that also influences trust negatively. Additionally, prioritizing other customers, failure to take care of things, missed deadlines, constant mistakes, and constant vague responses were mentioned to cause a lack of trust.

Another often mentioned category was *empty promises*. The respondents consider it crucial that promises are kept and neglecting agreed matters results in loss of trust. It was also mentioned that if promises are constantly broken, actions are contrary to what was agreed, false and empty promises are given, the agreed tasks are not completed and if a deviation occurs regarding agreed things, trust might be lost.

Bad behavior was also mentioned by several respondents. Lying and all kinds of unfair and bad behavior, failing to show interest to customers and partners, dishonesty, non-cooperation, and hiding of problems were not appreciated attributes. Dishonestness was also a factor considered negative in terms of trust as well as unkindness and arrogance. Unreliability and negligence towards customer needs were also considered negative.

Since communication was mentioned as a key in trust-building, *problems with communication* were mentioned as a crucial factor for losing trust. Problems with communication, such as sharing confidential information to external parties, complete lack of communication or cooperation, and lack of communication when things get difficult or if bad news is needed to be told were considered bad for trust. Lack of mutual discussion and late communication were also not appreciated. According to the respondents, information needs to flow smoothly in order to sustain trust, and thus if

the information flow is poor, it influences trust negatively. Additionally, also giving wrong or misleading information was not appreciated by the respondents.

Personality aspects were mentioned by a few respondents to have a negative impact on trust. According to the respondents, if interpersonal relationships are poor, it automatically influences the level of trust. Also, bad personal behavior was seen as an attribute that negatively influences trust.

Poor quality was not appreciated by a few respondents and according to them, quality issues negatively affect trust. Whether the poor quality occurs in products or services does not matter, all kinds of issues with bad quality were considered unappreciated by the respondents. Also, if the products are considered bad in general, it was mentioned to cause a lack of trust with the suppliers producing these products.

A word cloud analysis was conducted of this whole chapter 4.2.2 to carry out a quantitative analysis about the data of this chapter. The aim of the analysis was to find out which expressions were used most frequently in the responses. According to the analysis, the ten most used expressions in the responses were *trust*, *relationship*, *communication*, *promise*, *time*, *delivery*, *people*, *category*, *persons,* and *challenges*. These terms were the most discussed ones among the respondents and it indicates above all the importance of communication, promises, and people in supplier relationships. This analysis also shows that challenges were mentioned in several responses which indicates that they play a big role in supplier relationships and everything that comes along with them.

4.3 Comparative part

When the respondents were asked to define the delivery problems that occurred during Covid-19, several different responses came up. The respondents were asked questions regarding what type of delivery problems they have had during the pandemic, what kind of attempts have been made to fix the problems, how successful these attempts have been, and what the role of Covid-19 has been on the delivery problems that occurred. The responses on each of the questions were sorted based on their subject and different categories were formed based on the subjects.

4.3.1 Delivery problems during Covid-19 with different suppliers
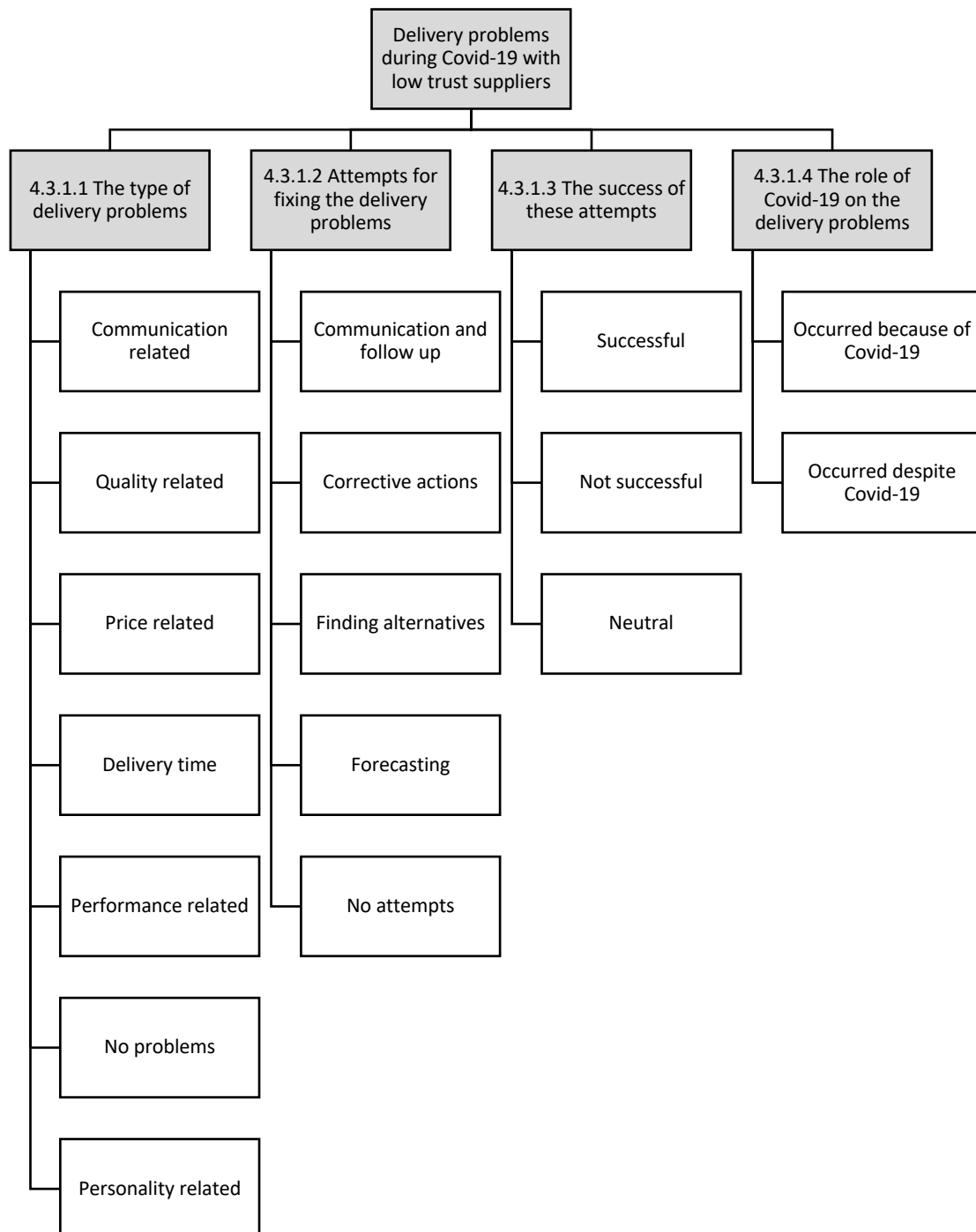
Figure 6. Delivery problems during Covid-19 with low trust suppliers.
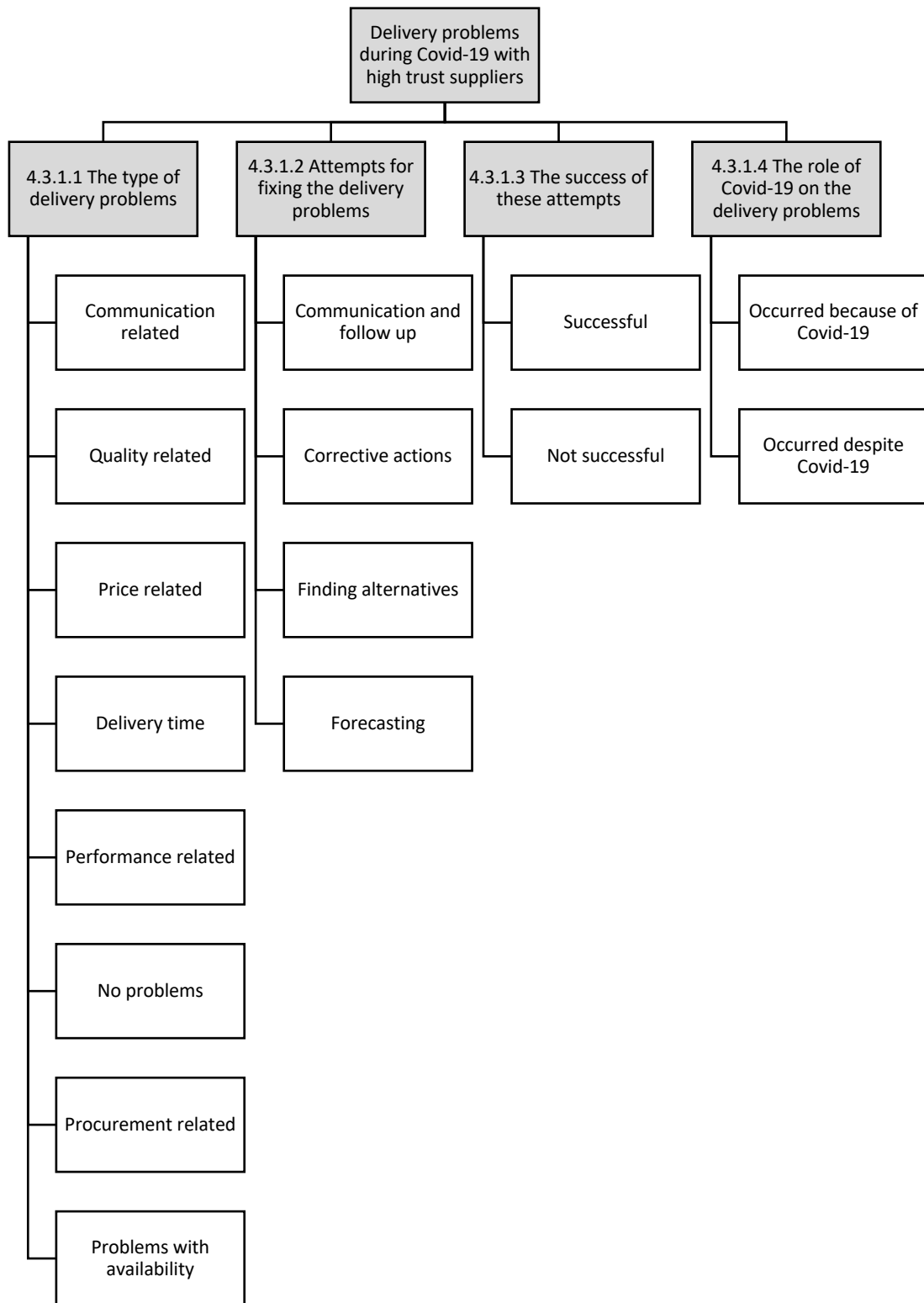
Figure 7. Delivery problems during Covid-19 with high trust suppliers.

The type of delivery problems

When talking about the type of delivery problems that occurred, the categories formed regarding low and high trust suppliers were relatively similar with few differences. In both types of supplier relationships categories related to communication, quality, price, delivery time, and performance were found as well as responses related to no problems at all. However, the difference between the categories related to low and high trust is that personality-related issues were a category discovered only in low trust supplier relationships, and procurement problems, as well as problems with availability, were categories found only in high trust supplier relationships.

According to the respondents, *communication-related* delivery problems in low trust supplier relationships were common during the pandemic. Some suppliers gave no answers and were impossible to reach out to, delivery times had been changed without any prior notice, supplier facilities were shut down without any information given, attempts to communicate through calls and emails were ignored, information about late or canceled deliveries was nonexistent and order confirmations were missing. In high trust supplier relationships, however, communication-related delivery problems were rare. Only a few respondents told that they have experienced communication-related problems with high trust suppliers. However, if they occurred, they were mostly focused on the decreased level of communication. Also, lack of information about the arrival of missing parts was reported.

Quality-related delivery problems in low trust supplier relationships consisted of problems such as poorly made quotations, order confirmations with wrong information and terms, and poor quality of products. In high trust supplier relationships, quality-related problems were to some extent similar to in low trust relationships. Also in high trust relationships, poor quality of products was an issue and incomplete deliveries occurred.

Another category found was *price-related* delivery problems. The respondents had experienced in low trust supplier relationships rapid increment of prices and prices were considered too high. Also, too cheap prices were mentioned. In high trust supplier relationships instead, higher transportation costs were the main issue.

Delivery time was also a category discovered in both types of supplier relationships and it was the most commonly mentioned type of delivery problem. In low trust supplier relationships delivery time-related problems were the most common type of delivery problems mentioned in the responses. Delivery times were given that could not be kept, delivery accuracy was reported to be poor, logistic delays and raw material delays were common, information about delays was missing and no evidence was shown that there have been attempts to fix things, long delivery times were mentioned in several responses as well as prolonged lead times. According to the respondents, the security of supply was an issue as well since it had decreased during Covid-19. Unclear delivery schedules were also mentioned as well as poor ETA dates (estimated time of arrival) and inability to sometimes deliver at all. In high trust supplier relationships late deliveries, long lead times, raw material delays, and long delivery times were reported but these kinds of problems were often mentioned to be slighter than in low trust supplier relationships. Additionally, the respondents communicated that high trust suppliers generally managed late deliveries better than low trust suppliers, which is reflected by the direct quotations of the responses below.

> "Longer lead times but we can rely on confirmations of deliveries." (Respondent 45.)

> "Unexpected late deliveries also but at least they have been communicated." (Respondent 17.)

Also, *performance-related* delivery problems were found in both types of supplier relationships. Problems such as not receiving order acknowledgments, hiding the real

situation, selling over the capacity, over-promising supply capability, unawareness of product demands, not confirming orders, prioritizing other customers, uncertain material availability and lack of materials were mentioned by the respondents. Too optimistic planning was also an issue with low trust suppliers as well as lack of components due to unpaid invoices and canceled installations. In high trust supplier relationships instead, the problems related to performance consisted of confirmation dates that could not be trusted, not receiving agreed service on time, and not being able to meet the agreed timetable. In high trust supplier relationships, however, it was mentioned that these kinds of problems were often communicated on time which made the extent of the problems smaller.

No delivery problems at all was also mentioned in a few responses related to low trust supplier relationships. It was mentioned that the suppliers have mostly been able to hold on to agreed delivery schedules and no bigger problems have occurred with the suppliers. According to the respondents, no remarkable change can be found between the normal operations and operations during the pandemic. Compared to the situation with low trust suppliers, in high trust supplier relationships plenty of respondents reported no problems to have occurred in the deliveries during the pandemic. According to the respondents, high trust suppliers have communicated their problems well in advance which has helped to prepare for the situation, information flows well both ways, both parties of the relationship have been solution-oriented and suggestions about how to proceed have been received from the suppliers' end. It was also brought up that during high demand, suppliers have respected and served their customers equally.

Personality-related delivery problems were reported only in low trust supplier relationships. These kinds of problems were linked with key people being out of the office and therefore causing problems with deliveries. Personality-related delivery problems were not found in high trust supplier relationships.

One type of delivery problem reported only in high trust supplier relationships was *procurement-related* delivery problems. Problems, such as having to ask for procurement from several different sources and long acquisition times of raw materials which have not been prepared for, were mentioned. Closed borders and factories were named as the reason for many procurement-related issues.

Another type of delivery problem that was found only in high trust supplier relationships was *problems with availability*. According to the respondents, it happened that raw materials and products were not available with certain suppliers, shortages of products occurred and lack of transportation capacity was present. Some respondents mentioned that during the different periods of Covid-19, risks related to supplier capacity have been tried to manage and identify to avoid problems.

Attempts for fixing the delivery problems

When talking about the attempts that have been taken to fix the delivery problems, several different responses came up. The categories found were nearly identical in low and high-trust supplier relationships. In both types of supplier relationships categories related to communication and follow-up, corrective actions, finding alternatives, and forecasting were found. Additionally, in low trust supplier relationships, a category of no attempts at all was discovered.

Different attempts were made in order to fix these delivery problems. *Communication and follow-up* were mentioned in both types of relationships. In low trust supplier relationships, communication was the most common attempt to fix the problems and most of the respondents mentioned that they have tried to improve the communication and arrange follow ups and meetings. Additionally, extra effort was put into the follow-up of quotations, regular communication was highlighted, status' were made more visible, supplier audits took place, direct feedback was given, monitoring got stricter,

open communication about challenges was required and continuous contact with suppliers occurred. According to some of the respondents, emails were not the preferred way of communicating, and calls and Teams -meetings were preferred instead. Personal relationships were considered important but since visits have not been possible during the pandemic, other ways of communication have been used, which the direct quotes of the responses reflect:

"More communication (regular meetings). As no visits or audits were allowed, the communication depended on Teams and phone." (Respondent 50.)

"As visits to supplier are not always possible, we need to use phone calls, e-mails…" (Respondent 38.)

Frustration was visible in several answers. The respondents reported that sometimes they have had to send hundreds of emails or calls and still have not got an answer from the supplier. In this kind of case the higher levels of the organization needed to be contacted in order to get responses. Also in high trust supplier relationships communication and follow up were often mentioned as corrective actions. In high trust supplier relationships, corrective actions related to follow-up and communication were similar to low trust relationships: more follow-up meetings, more communication, weekly status reporting and meetings, discussions with customers, daily communication, and regularity with meetings and communication. Also in high trust supplier relationships, the personal aspect of communication was enhanced through meetings in Skype and Teams. The difference to low trust relationships was the frustration of the respondents was visible, in high trust relationships, frustration was not to be seen, and instead, it was mentioned that thanks to the early and open communication of the suppliers, the companies have been able to prepare for the arising problems. Another difference was that the close monitoring and audits of the suppliers were missing from the high trust supplier relationships.

Corrective actions were also described as a fixing attempt in both kinds of relationships. In low trust supplier relationships corrective actions such as prioritizing orders due to the criticality, inquiring the suppliers' capacity, contract technical solutions, buffer building, faster fright solutions, root cause analysis, increasing of stock levels, escalations, and mitigating plans were brought into use. Also requests for late deliveries, increasing inventories, frequently asking for the situation of deliveries, responsive cooperation and letters from management occurred in order to improve the situations. In high trust supplier relationships, the corrective actions have been similar to low trust relationships. The difference is that in high trust relationships actions such as contract technical solutions, requests for late deliveries, and responsive cooperation that occurred in low trust relationships were not found. On contrary, special arrangements such as over-time deliveries and express deliveries as well as going to the open market were actions reported only in high trust supplier relationships.

Additionally, *finding alternatives* was mentioned by several respondents. In low trust relationships, many responses included changing the suppliers and finding alternative ones, looking for alternatives in terms of products and materials, changing volumes to other supply partners, changing to more reliable suppliers, ordering more components from Finland, searching for alternative frights, widening of supplier base, changing to new supply chains and using dual sources. The quote below describes one of the reasons why changing suppliers has been a common attempt to solve delivery problems.

> "Supplier changes are the best options. They say that purchaser has a long memory." (Respondent 10.)

In high trust relationships, finding alternatives did not occur in the responses as often as in low trust supplier relationships. However, in the responses where alternatives were found, the difference to low trust suppliers is that even if sometimes alternative suppliers and sources were searched and used, replacing products were searched and components were ordered more from Finland, in high trust relationships alternative

solutions were often searched together in collaboration with the supplier and problems were tried to fix together instead of automatically giving up and changing the supplier.

Forecasting was mentioned in a few responses related to low trust supplier relationships. According to the respondents, changing to fixed orders from forecasting, preparing on time, sending forecasts to supply chains, forecasting how to improve the future services, and forecasting the needs of materials have been attempts to try to solve the delivery problems. Compared to low trust relationships, in high trust relationships, the forecasting focus was more on postponing orders to the future always if possible. Also longer forecasting of the company needs was informed to the suppliers in order to inform them about the company's future needs in advance.

A category found only in low trust relationships was *no attempts at all*. According to the responses, some suppliers were reported to have no fixing attempts at all. Some suppliers were told to not have informed about their possible attempts and therefore their attempts have not been visible to the purchaser. Therefore their potential attempts have been considered unclear and even non-existent.

The success of these attempts

When talking about how successful these attempts have been, several different responses came up. The categories found were nearly identical in low and high-trust supplier relationships. In both types of supplier relationships, categories related to successful attempts and not successful attempts were found. Additionally, in low trust supplier relationships, a category of neutral success was discovered.

Several respondents described the attempts to fix the delivery issues to have been *successful* in low trust relationships. Management escalations have succeeded, the open discussion has helped to clarify the current situation and supplier changes have resulted

in improvement of operations. It was also mentioned that in the attempts attitude has been the most important thing and the ability to listen. According to the respondents, in most cases, something can be done to improve the situation, and thus the attitude counts. It was also noted that with those suppliers who care about their business operations the attempts have been working well. When it comes to high trust relationships, almost every response was about the attempts being successful. The attempts were often reported to be fairly successful, successful, or very successful and even if the attempts have been only partly or somewhat successful, that has been satisfying for the purchaser party. Improvement of communication was mentioned in many responses to have helped to fix the problems. It was also mentioned that in general, these attempts have been a lot more successful than with low trust suppliers.

According to some respondents, the attempts have *not been successful*. In low trust relationships, sometimes improving the communication has not helped since the problems seem to be in certain people or in company culture. Also, it was mentioned that new confirmation dates can not have been trusted, the situation has just been too difficult to handle, changing the supplier is not always an option if the customer has chosen the supplier and too many problems at the same time makes the situation difficult. Some of the respondents' companies had to go to the open market and some attempts have not been successful at all. In comparison with low trust suppliers, only a few respondents reported the attempts with high trust suppliers to have been unsuccessful. The reasons for the attempts not being successful were lack of logic behind the actions, not being able to find certain components or not being able to find faster transportation solutions.

Neutral was the response of several respondents regarding the success of these attempts with low trust suppliers. According to several respondents, the attempts have been more or less successful and some of them successful and some of them not. The reasons for these were that sometimes the supplier might realize the importance of the situation and sometimes not, none of the cases have been easy but some kind of solution

has always been found, the issues of the suppliers together with the company's own issues have been too hard to handle, the level of the relationship and partnership has influenced on either the success or unsuccess of the attempts and some respondents are still working for solving the issues.

The role of Covid-19 on the delivery problems

When talking about the role of Covid-19 on the delivery problems, the categories found in low and high trust supplier relationships were identical. In both types of supplier relationships, the categories found were related to whether or not the delivery problems occurred because of Covid-19. The categories found were that the delivery problems occurred either because of Covid-19 or despite Covid-19.

The majority of the respondents considered that the delivery problems *occurred because of Covid-19* in low trust supplier relationships. According to the respondents, the pandemic has had a significant role in the delivery problems and has often been the main reason for them. However, it was also mentioned that the role of Covid-19 on the problems has varied throughout the pandemic and sometimes its role has been bigger and sometimes smaller. It was also said that usually, Covid-19 is at least partly the reason for the delivery problems. The responses were similar with high trust suppliers. Covid-19 was mentioned often to have been the root cause for the problems or at least to have had some kind of role in the delivery problems. The role of the virus was considered to have been varying during the pandemic also in high trust supplier relationships.

According to a few respondents, the delivery problems have occurred *despite Covid-19* in both low trust and high trust supplier relationships. These respondents consider that recently the global allocation of components and lack of materials and global high demand have been the main reason for the problems, not Covid-19. It was also mentioned that Covid-19 is not the only cause for the problems and also other root

causes can be found. Some respondents also said that at times suppliers tend to use Covid-19 as an excuse for their issues. Few respondents said that Covid-19 has not had any kind of impact on their deliveries and they are operating normally.
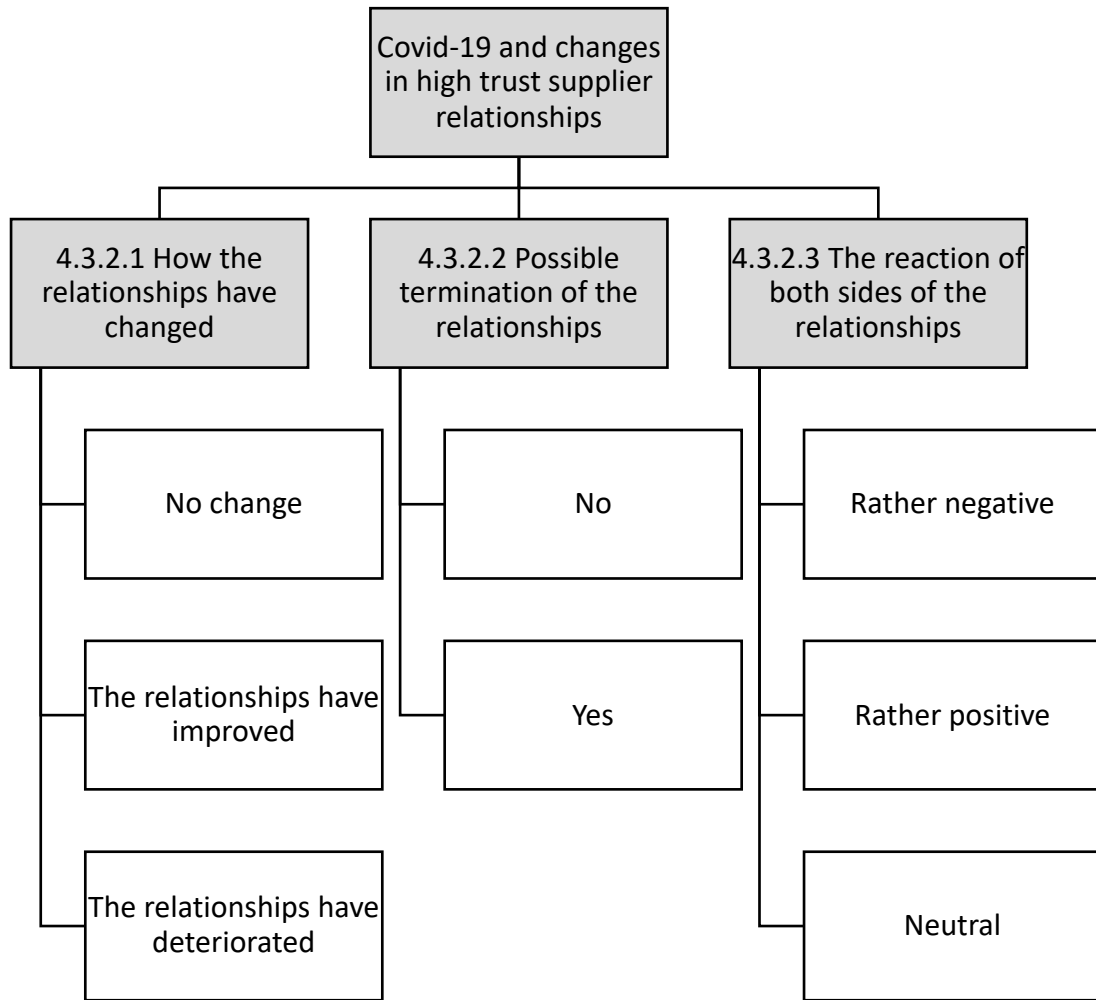
4.3.2 Covid-19 and changes in different supplier relationships

When the respondents were asked to define the changes in the supplier relationship during Covid-19, several different responses came up. The respondents were asked questions regarding how the supplier relationships have changed, whether or not they have had to end any supplier relationships and how the reactions have been on both sides of the relationship to the delivery problems occurred. The responses on each of the questions were sorted based on their subject and different categories were formed based on the subjects.
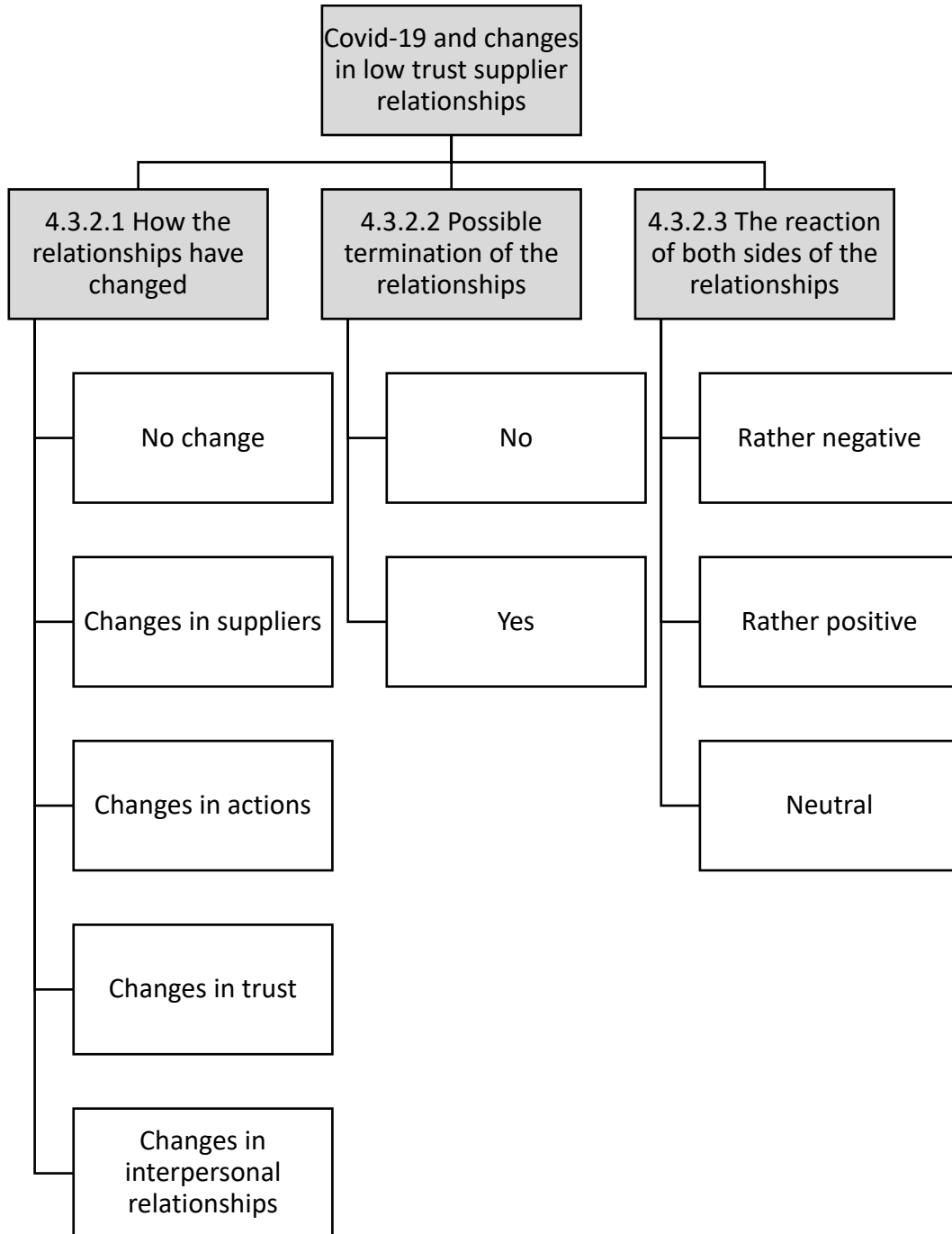
Figure 8. Covid-19 and changes in low trust supplier relationships.

Figure 9. Covid-19 and changes in high trust supplier relationships.

How the relationships have changed

When talking about how the supplier relationships have changed during Covid-19, several different responses came up and the categories formed based on them were different in low and high trust supplier relationships. A common category found in both types of relationships was a category of no change in the relationship but otherwise, the categories were different. The categories found related to the changes in low trust supplier relationships were changes in suppliers, changes in actions, changes in trust, and changes in interpersonal relationships. Categories found only in high trust supplier

relationships were the improvement of the relationship and the deterioration of the re-lationship.

Only a few of the respondents wrote that there has been *no change* in the relationship with low trust suppliers because of the delivery problems during Covid-19. According to these respondents, the reasons are that the companies have only used high trust suppliers, only a few problems with the deliveries have occurred that would impact the supplier relationship and that since the relationship with low trust suppliers has always been more distant than the relationship with high trust suppliers, not much has changed during the pandemic. Some respondents reported that also the high trust supplier relationships have not changed much because of the delivery problems during the pandemic. The reason for no change was said to be the importance of the high trust suppliers that has always been the case and it has not changed even during the pandemic.

Changes in suppliers were reported in low trust supplier relationships. If some suppliers have not been able to deliver the service required and have constantly had delivery problems, they have been changed to different suppliers. It was also mentioned that sometimes some suppliers have been had to use that normally would not have been used, the pandemic has shown which suppliers should be gotten rid of, the focus has been on suppliers with high trust and new suppliers have been constantly looked for to replace the ones who constantly have problems.

Changes in actions were found in low trust supplier relationships. More escalations have been placed, suppliers are contacted even earlier to place the orders, weekly meetings have been brought into use to discuss problems, closer audits and warnings have been placed and the relationship includes more communication than before. It was also mentioned that in general, low trust suppliers need more effort from the purchaser's side and are therefore sometimes laborious.

Changes in trust were discovered in low trust relationships. The changes have been negative and trust was reported to have weakened during the pandemic. Bad communication from the suppliers' side, other customers' prioritization during capacity issues, and the untrustworthiness of the suppliers and their promises made were mentioned to have caused the loss of trust in many low trust supplier relationships.

Additionally, also *changes in interpersonal relationships* were reported in the responses regarding low trust suppliers. These kinds of changes were told to create instability in the relationship and both ends of the business relationship were mentioned to be tired and frustrated of the situation. According to the respondents, if a supplier gives a feeling of not wanting to fix the situation, this kind of action leaves a memory footprint which for its part contributes to replacing this kind of suppliers. Changes were reported to have occurred in both ends of the relationship and they have influenced the business relationship negatively when the previous close connection was lost. All in all the relationships were considered to have gone worse and some respondents reported to have lost their sleep and wealth trying to fix the situation.

Interestingly, most of the respondents considered the relationships with high trust suppliers *to have improved* during the pandemic. Cooperation has been closer than before, communication has improved, the corrective actions have worked and contributed positively to the improvement of the relationship, high trust suppliers have actively searched for solutions which has improved the relationship, trust in high trust suppliers was considered to have increased thanks to the hard work and clear efforts of the high trust suppliers and the good communication with them. The efforts of suppliers were highly appreciated, which also the quote below reflects.

> "We know that some suppliers have given us the priority over other customers. That is giving us a signal that we are important which is also a reminder that it is better to nourish this relationship than to try to get the parts from some other supplier." (Respondent 35.)

The relationships with high trust suppliers were said to be easier than with low trust suppliers. It was also mentioned that with high trust suppliers, the feeling that all parts of the relationship are "in the same boat" has helped in the tough times and also improved the trust and relationship. According to the respondents, when cooperation and communication are efficient, trust is maintained even if some challenges occur. The culture of open discussion, mitigation of unsuccessful cases, and understanding of the situation from both parties have also done their part for improving the relationship.

Only a few respondents say that *the relationships have deteriorated* with high trust suppliers. According to these respondents, the relationships have gone worse due to all the extra effort and resources needed to fix the delivery problems, the changes in key personnel in charge, and some delivery problems that occurred that could not have been fixed. It was also mentioned that even with high trust suppliers, trust can not be taken for granted and even high trust suppliers need to be followed up.

Possible termination of the relationships

When the question was about low trust suppliers, 28 respondents out of 50 said that they have not had to end the business relationships with low trust suppliers because of occurred delivery problems. High trust suppliers were on another scale. 46 respondents out of 50 reported not having had to end the business relationships with high trust suppliers due to delivery problems during the pandemic.

22 respondents out of 50 said to have had to end relationships with low trust suppliers because of the delivery problems that occurred. The numbers are again different with high trust suppliers. Only 4 respondents out of 50 were facing the situation of ending the relationship with high trust suppliers because of their delivery problems.

The reaction of both sides of the relationships

When talking about the reactions of both sides of the relationship on the delivery problems during Covid-19, the responses were similar in low and high trust supplier relationships. Thus, the categories formed were identical. In both types of supplier relationships, three categories were found: rather negative reactions, rather positive reactions, and neutral reactions.

The majority of the respondents reported the reaction of both sides of the relationship to have been *rather negative* to the delivery problems that occurred in low trust supplier relationships. Some respondents experienced strong reactions such as deep dissatisfaction, negative feelings, disappointment from purchasers' side, frustration, decreased interest in the business relationship in question and ignorance occurred from suppliers' side, especially the buying party has reacted negatively to bad communication. The quote below reflects how much the reaction depends on which supplier/buyer is in question.

> "For us deep dissatisfaction, for supplier it surely depends. If they have prioritized other customers with better profits for example, it can vary from deep dissatisfaction to opening the champagne." (Respondent 17.)

It was also mentioned that if the trust was low before the pandemic, the virus has strengthened the need of getting rid of this kind of supplier. According to some responses, some suppliers have tried to blame the buying party for the situation which was naturally not received well from the buying party. The respondents also see that the problems have been energy-consuming on both ends. Sometimes the suppliers have tried to explain the situation but the buying party has not been understanding of the situation. Both parties were also reported to feel sorry for the whole situation. In contrast, with high trust supplier relationships, only very few respondents experienced the reactions to have been negative. The ones who reported negative reactions were

saying them to be the result of the whole market situation and some respondents felt annoyed with the situation. However, the difference in the reactions is big compared to the reactions with low-trust suppliers.

Several respondents also said that the reactions to the delivery problems with low trust suppliers have been *rather positive*. The situation was said to be understood by both parties and how sometimes there is nothing that can be done to improve the situation. According to the respondents, the reactions depend on which supplier is in question but at times the reactions have been constructive and therefore seen as positive. If a supplier communicates well, the reactions to problems from the purchaser's side could be even positive and understanding. The reactions were also said to be open and problem-solving and according to some respondents, no bigger feelings were involved and they considered the situation business as usual. With high trust suppliers instead, the majority of the respondents said that the reactions have been rather positive. According to the respondents, if during these hard times any supplier can perform tasks given to them, they are highly appreciated. The direct quotes below reflect how the effort from the suppliers' side was appreciated and considered positive by the purchasers' side.

> "Very systematic, daily/weekly follow up, open sharing of the situation. More like "common problem solving" instead of each party trying to manage the issues only on their own." (Respondent 27.)

> "Sometimes suppliers are trying really hard to get the relationship better." (Respondent 17.)

It was also mentioned that through transparency, the partnerships can be even better than before and people have tried to stay positive through the hard times. Also in high trust relationships, there has often been full understanding about the whole situation and no hard feelings towards the other party. It was also said that through collaboration and good communication trust can be maintained. Both sides of the relationship have

also actively searched for solutions for the situation. According to the respondents, in some high trust relationships, both sides of the relationship agree that the relationship is getting even closer than before. The positivity has also come through the realization that both parties are in the situation and facing challenges together and both ends have had a problem-solving mindset.

A few respondents said the reactions to have been *neutral* in low trust supplier relationships. According to these respondents, that is because the problems that occurred have not been major and no big surprises have occurred since the situation is the same everywhere and everyone is in the same situation. Some respondents also said that the reactions have been neutral also in high trust relationships. According to these respondents, the reasons are that some orders have been placed further in the future, no changes in the relationships have occurred and the situation has been similar to business as usual.
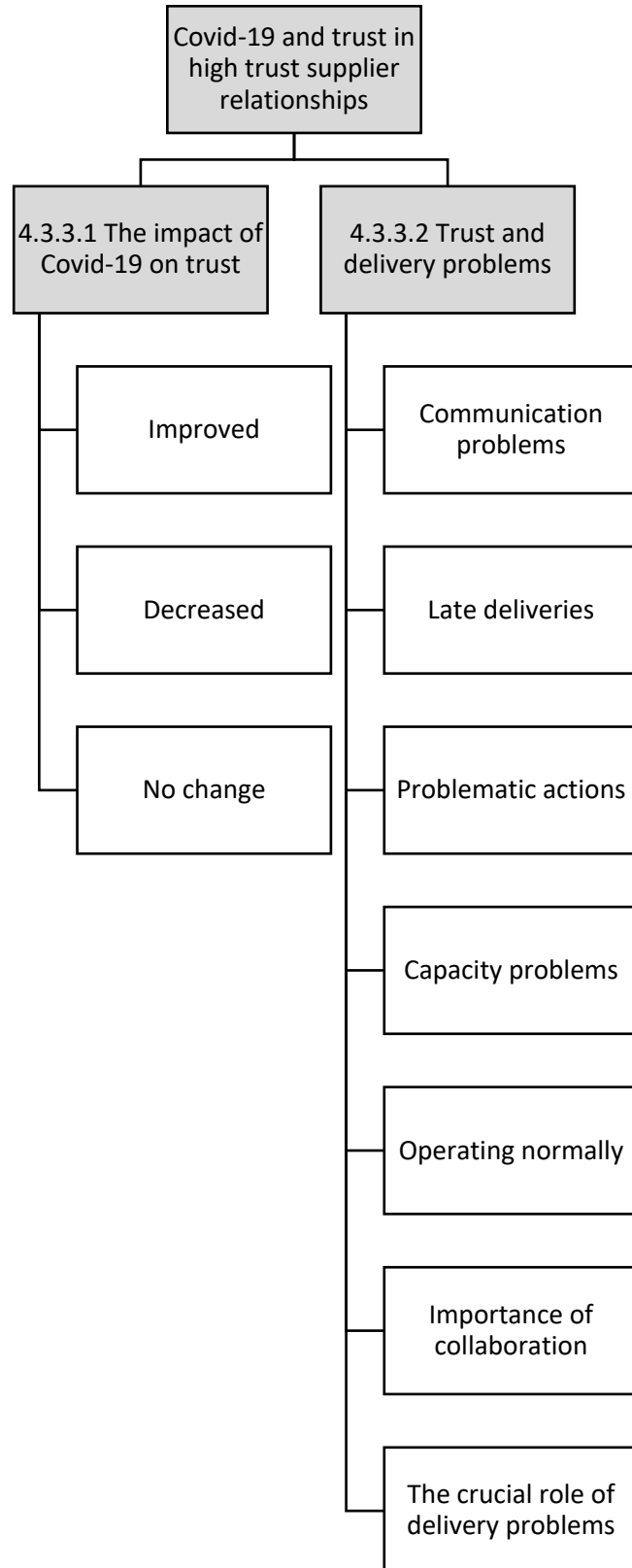
4.3.3 Covid-19 and trust in different supplier relationships

When the respondents were asked to define how Covid-19 has impacted the trust in the supplier relationships, several different responses came up. The respondents were asked questions regarding the impact of Covid-19 on the different supplier relationships' trust and also what kind of delivery problems have impacted the trust. The responses on each of the questions were sorted based on their subject and different categories were formed based on the subjects.
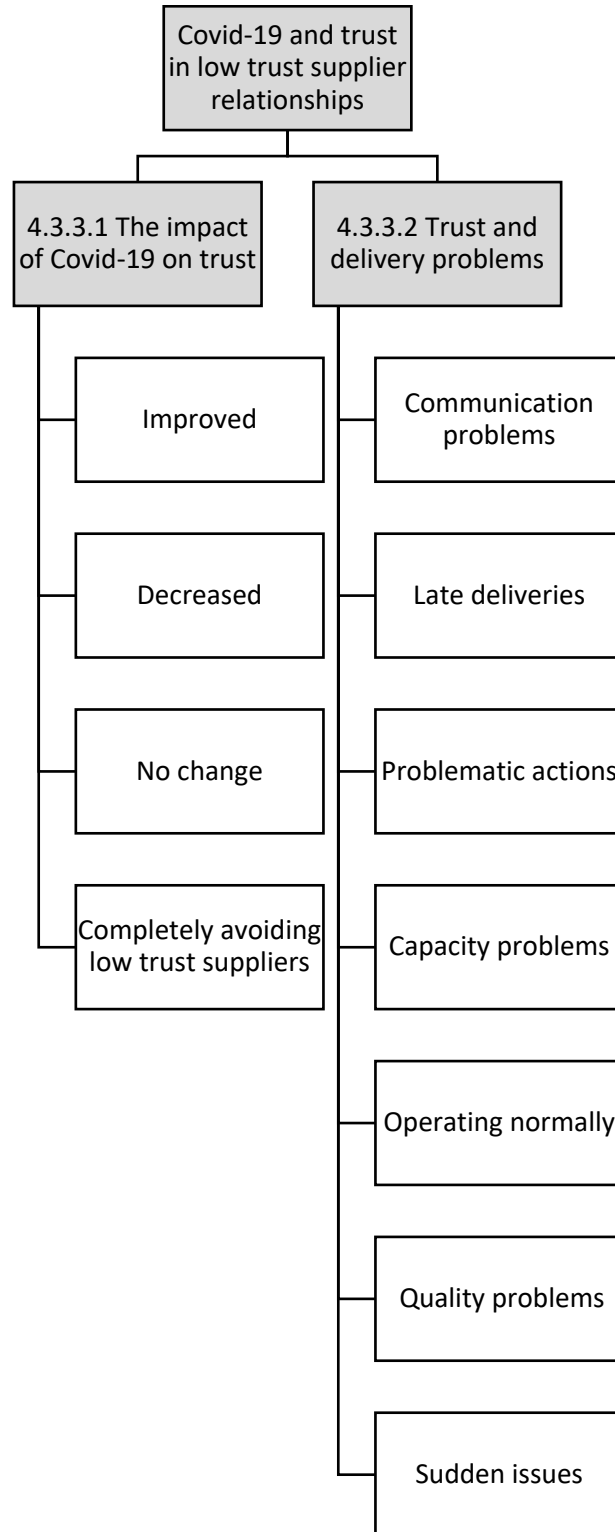
Figure 10. Covid-19 and trust in low trust supplier relationships.

Figure 11. Covid-19 and trust in high trust supplier relationships.

The impact of Covid-19 on trust

When talking about the impact of Covid-19 on trust in different supplier relationships, the responses were similar in low and high-trust supplier relationships. In both types of supplier relationships, categories related to the improvement of trust and the weakening of trust were found as well as a category of no change in trust. Additionally, a category discovered only related to low trust suppliers was that some companies completely avoid using low trust suppliers.

According to a few respondents, the trust in low trust supplier relationships has *improved* during the pandemic. These respondents say that thanks to improved communication and to some extent improved cooperation also the level of trust has increased. In high trust supplier relationships, the situation is different and several respondents report strengthening of trust during the pandemic. According to the responses, the reasons for the strengthening of trust are similar to low trust supplier relationships. Deepened communication and cooperation have also increased the level of trust. Additionally, flexibility and appreciation towards other businesses were mentioned as characteristics impacting the increase of trust. In several responses was mentioned that even though there have been hardships during Covid-19, the relationship is considered to be closer and better than ever. All in all, trust was mentioned to be in a higher level in high trust supplier relationships than ever before.

The majority of the respondents report the trust to have *decreased* with low trust suppliers during the pandemic. As reasons for the decrease of trust was mentioned factors such as previous problems that the pandemic has just made worse, lack of visibility due to lack of visits negatively impacting the trust, the pandemic was used as an excuse, problems with deliveries and quality, lack of audits, absences of key people and suppliers trying to benefit from the situation by rising prices. It was also mentioned that typically changes from low trust suppliers to high trust suppliers do not happen and usually, the direction is vice versa. In high trust supplier relationships, however, only a

few respondents saw the trust to have decreased. The reasons for the lower level of trust were mentioned to have been similar to low trust suppliers: decreased visibility due to lack of visits and instability of the relationship.

No change was the response of several respondents in terms of the impact of Covid-19 on the low trust supplier relationships' trust. According to the respondents, low trust suppliers are low trust suppliers whether Covid-19 exists or not. Also, previous low trust in suppliers has already shown whether a supplier can be trusted or not. It was also mentioned that during Covid-19 business has been usual and according to some respondents, they only have one supplier with trust issues and therefore it is not impacting the overall picture much. Also in high trust supplier relationships, several respondents saw that no big changes have occurred in trust. According to the respondents, when there is collaboration and good communication between the relationship parties, a pandemic does not change anything in the relationship. The high trust suppliers were considered high trust suppliers also during Covid-19. Some respondents also said that they do not have trust issues in their company and therefore their answer was 'no change'.

When it comes to low trust supplier relationships, some respondents mentioned that they are completely *avoiding low trust suppliers*. According to some respondents, they only do business with high-trust suppliers. Thus, they do not have experience from having low trust supplier relationships.

Trust and delivery problems

When talking about the delivery problems affecting the trust in supplier relationships, the responses were similar in low and high-trust supplier relationships with a few differences. In both types of supplier relationships, categories related to communication problems, late deliveries, problematic actions, capacity problems, and normal operations

were discovered. Additionally, categories discovered that were only related to low trust suppliers were quality problems and sudden issues. Two categories were also found only in high trust supplier relationships: the importance of collaboration and the crucial role of delivery problems.

Communication problems were mentioned by many of the respondents to have occurred in low trust supplier relationships. Effective delivery communication and transparent communication on both sides were mentioned as crucial for trust and if they are lacking, trust might be harmed. The quotes below reflect the importance of communication about delivery problems in terms of trust.

> "It comes again down to communication and how things are being handled. If supplier keeps us uninformed and provides poor answers or no answers at all about delayed deliveries or quality problems, it changes the relationship to worse." (Respondent 4.)

> "Distrust is caused if problems with delivery times are not reported in time and the customer is not properly informed about them. It's annoying and awkward if a customer has to ask themselves for delivery times." (Respondent 32.)

It was also mentioned in several responses that the timing of communication is crucial and if information flows on time and pre-warnings are given, problems could be avoided. Hiding crucial information and causing 'radio silence' might also result in an uncontrollable state according to some respondents. In high trust supplier relationships, communication was also mentioned in many responses to be part of delivery problems that impact the trust. Similar things were mentioned as in low trust relationships, early, transparent and on-time communication was highlighted as positive for trust development and at best, communication was mentioned to increase trust. According to some of the respondents, their suppliers have been informative about the problems early and therefore no bigger problems in deliveries have occurred.

Also, *late deliveries* were mentioned by the respondents to have impacted the trust in low trust supplier relationships. Several respondents mentioned that late deliveries and other transportation issues have been a big factor impacting the supplier relationships' trust. Also delayed or missing order confirmations, lack of accurate information regarding deliveries, and long and unbearable lead times were mentioned to have a negative influence on trust. It was also said that if a low trust supplier's trust is negatively impacted the reason is always delivery problems. According to one respondent, it is also important to compare suppliers to their competitors and see whether they have more delivery problems than their direct competitors. If that is the case, it is a sign that the supplier is having issues and that can negatively influence the trust. In high trust supplier relationships, late deliveries were mentioned to be an issue as well and negatively impact trust. In terms of late deliveries, also high trust suppliers were reported to have had late deliveries and long lead times but it was mentioned that typically in high trust supplier relationships quality issues and transportation problems do not occur.

Problematic actions were mentioned in some responses regarding low-trust suppliers. Actions such as giving wrong order confirmations, inability to forecast their supply chain, not working according to what is agreed, empty promises, and poor knowledge of products were reported as the most harmful actions for trust. Also in high trust supplier relationships, problematic actions were mentioned to be harmful. In this kind of relationships actions such as disregard, not being able to perform as agreed, and not being able to keep promises were mentioned to have a negative impact on trust. The direct quote below characterizes how empty promises are seen by the buyers' side.

> "Vendor is informing something but we know that it can be their best guess." (Respondent 30.)

Capacity problems were also a category that was found in both types of supplier relationships. Regarding low trust supplier relationships, it was mentioned that 10 % of the deliveries have been on hold due to problems with capacity. Capacity problems were

said to have decreased the level of trust. The problems reported in high trust supplier relationships were similar. Shortage of raw material was reported and it was also said that if suppliers have cut their capacity without giving proper reasons, it has affected trust negatively.

In some responses in both types of the relationship was also mentioned that they have been able to *operate normally* during the pandemic. In low trust supplier relationships, it was mentioned by the respondents that everybody understands the situation and the situation is the same everywhere and therefore no bigger issues on trust have come out. It was also said that delivery problems do not influence the supplier relationships' trust. Some respondents mentioned as well that they have had no problems in deliveries during the pandemic. Some respondents also said that in high trust supplier relationships there have not been bigger problems and they have been operating normally. According to these respondents, no problems regarding delivery time have appeared, and all in all very few delivery problems. It was mentioned also in these kinds of relationships that there is understanding in both relationship parties towards the situation during Covid-19.

In low trust supplier relationships, *quality problems* were reported to have impacted the relationships' trust. Problems with the quality of the products or the materials were reported and sometimes the deliveries have not been complete and some parts have been missing. According to a respondent, some suppliers are living on a thin line since these suppliers have constantly quality issues that naturally impact trust.

Sudden issues were also a category found in the responses regarding low-trust suppliers. Sudden issues and issues that appear at the last minute were reported to be the worst kind of issues and to negatively impact trust. Too late information and problems with no prior notice were said to create delivery problems since it gives no time to react and try to fix the situation. All in all, unexpected issues were said to be the worst ones due to the lack of possibilities to fix them.

The *importance of collaboration* was highlighted in high trust supplier relationships. It was mentioned that the pandemic has shown which suppliers are willing to work to fix delivery problems and the trust in such suppliers has increased. Mutual desire to fix problems, cooperation, and trying to find solutions together were said to positively influence the trust and the business relationship.

The crucial role of delivery problems was mentioned in some responses regarding high trust supplier relationships. Delivery problems were said to be the main issue for declining trust and their role was mentioned to be significant for trust. If a supplier has plenty of delivery problems it automatically increases the trust in them. The role of delivery problems was mentioned to be so crucial since delivery problems directly influence also the purchaser organization's own deliveries.

5 FINDINGS

This chapter includes the findings of the empirical part of the study. First, the findings of the *general part* of the analysis will be summarized, followed by the summary of the comparative part of the analysis. The findings of the study will be summarized and presented in tables showing the results of both parts of the analysis.

The table below includes a summary of the general part of the analysis. In this table, the results of the analysis regarding the subjects presented will be summarized. This table includes the summary of the analysis where the respondents were asked about the role of trust in business relationships, the variety of trust, how trust is built, and how trust is lost.

Table 2. The summary of the results of the general part of the analysis.

GENERAL PART	
The role of trust in business relationships	- crucial role of trust in business relationships - collaboration is needed in business relationships and in collaboration trust is required - trust is important in all types of business relationships, especially in partnerships and long-term relationships - the aim is to cooperate with trustworthy suppliers - trust is crucial in projects involving a lot of capital since the more capital involved the bigger the possible risks - the importance of trust is highlighted during difficulties such as Covid-19 - trust is one of the most important values in business life

Variety of trust	- the level of trust depends on the business partner - long-term relationships require a higher level of trust - with easily replacable suppliers also lower level of trust is considered sufficient
How trust is built	- good people relationships are important for trust building since trust is built between people - different people and personalities might influence trust in a positive or negative way - trust is considered fragile and it needs to be nurtured through the relationship - trust is not a permanent state and sustaining trust requires time and effort - actions are important for building trust - communication considered vital for trust - interpersonal relationships, contracts and agreements, keeping promises, different characteristics, time and experiences also important for trust building
How trust is lost	- poor performance the main factor negatively influencing trust - organizational aspects such as organizational changes might negatively influence trust - empty promises and bad behavior were considered to have a negative impact on trust - problems with communication or lack of communication - conflicts between people and bad quality were also not appreciated

The table below includes the summary of the comparative part of the analysis. In this table, the results of the analysis regarding the subjects presented will be summarized. This table includes the summary of the analysis where the respondents were asked about the type of delivery problems that occurred, the attempts that have been taken to fix the problems, the success of these attempts, the role of Covid-19 on the delivery problems, how the supplier relationships have changed, possible termination of the relationships, reaction of both sides of the relationships, the impact of Covid-19 on trust and trust and delivery problems.

Table 3. The summary of the results of the comparative part of the analysis.

COMPARATIVE PART	low trust suppliers	high trust suppliers
The type of delivery problems	- major communication problems - quality problems - rising prices - major problems with delivery time - performance related problems - problems with order confirmations - not being able to keep up with the time schedule - problems with personalities	- communication has been fairly successful - quality problems - rising prices - some problems with delivery time but managed professionally which mitigated the impact - performance related problems, handled mostly professionally - problems with order confirmations, handled mostly professionally - not being able to keep up with the time schedule, handled mostly professionally

		- problems with availability
Attempts for fixing the delivery problems	- improving communication, visible frustration - audits and monitoring - corrective actions, special arrangements and express deliveries were missing - often trying to find alternative suppliers - forecasting - sometimes no attempts at all - unclear/non existent attempts	- improving communication, parties more patient with the situation - no audits or monitoring, thanks to trust - corrective actions such as special arrangements and express deliveries - sometimes alternative suppliers, done in collaboration with the supplier - forecasting - orders pushed in the future when possible
The success of these attempts	- often successful - attitude, trying one's best appreciated - attempts not as successful as with high trust suppliers - actions could not always be trusted - problems sometimes too big to solve - sometimes successful, sometimes not - sometimes the low trust suppliers do not understand	- mainly successful - attitude, trying one's best appreciated - usually more successful attempts than with low trust suppliers

	the importance of the situation - inadequate attempts	
The role of Covid-19 on the delivery problems	- the majority of the problems occurred because of Covid-19 - Covid-19 the main cause for the delivery problems - sometimes bigger impact, sometimes smaller	- the majority of the problems occurred because of Covid-19 - Covid-19 the main cause for the delivery problems - sometimes bigger impact, sometimes smaller
How the relationships have changed	- the relationships have changed - sometimes no change if only trusted suppliers are used - typically the relationships have changed - changes in suppliers, trust and interpersonal relationships - changes in actions, more escalations and audits - problematic suppliers have often been replaced - weakened trust - lack of motivation from suppliers has had a negative influence	- the relationships have changed - sometimes no change if trust has remained on a high level - the majority sees that their relationships with high trust suppliers have improved - collaboration and communication have improved the relationship - feeling of being in the same situation with suppliers has also had a positive influence - challenges have not usually impacted trust since the relationships were already on a good level - a few people see that the relationships have deteriorated

		due to extra work to fix the problems
Possible termination of the relationships	- 22 people out of 50 have terminated some of their low trust supplier relationships	- 4 people out of 50 have terminated some of their high trust supplier relationships
The reaction of both sides of the relationships	- mainly negative reactions - disappointment and dissatisfaction on the buyers' side - suppliers' reactions vary depending on their priorities - a few positive reactions if both parties understand the situation or communication has been good - rarely no reactions at all if business as usual	- only few negative reactions - mainly positive reactions - common efforts and solving problems together with the supplier has resulted as positive reactions - thanks to transparency, the relationship has either remained as good as before or even improved - rarely no reactions at all if business as usual
The impact of Covid-19 on trust	- few people considered the trust in low trust suppliers to have increased - mostly the level of trust has decreased - lack of actions or willingness to change things had a negative impact on trust - low trust suppliers rarely become high trust suppliers	- Covid-19 has often had a positive impact on trust - level of trust has increased thanks to collaboration and communication through tough times - flexibility and appreciation shown by suppliers have positively influenced trust - trust often on a higher level than before the pandemic

	- often use the pandemic as an excuse - rarely no change if previous experience has already shown enough	- only a few people consider the trust in high trust suppliers to have decreased - rarely no change if previous experience has already shown enough
Trust and delivery problems	- problems with the communication about deliveries - on time communication crucial since it enables corrective actions - if problems not communicated on time it has a negative impact on trust - late deliveries and other transportation issues - if low trust suppliers' trust is negatively impacted, the reason is usually delivery problems or unsuccessful deliveries - problematic actions and capacity problems negatively impact trust - rarely normal operations - problems with quality and sudden issues have impacted trust negatively	- problems with the communication about deliveries - on time communication crucial since it enables corrective actions - if problems not communicated on time it has a negative impact on trust - late deliveries and other transportation issues - problematic actions and capacity problems negatively impact trust - rarely normal operations

6 DISCUSSION AND CONCLUSION

The aim of this work was to find out how the pandemic of Covid-19 has influenced the supplier relationships and more specifically how the delivery problems that occurred because of the pandemic have impacted the supplier relationships' trust. This chapter will present theoretical implications, managerial implications, limitations of the study and give suggestions for future research.

6.1 Theoretical implications

The first research question to be answered was to find out how the delivery problems caused by Covid-19 have impacted the trust in low trust supplier relationships in comparison with high trust supplier relationships. According to Sako (2006), trust is a crucial element in business relationships since it contributes to the success of partnerships and networks. Trust is also considered to improve the performance of an organization. Trust plays a big role in today's business world since maintaining high quality is easier for suppliers with high trust than for suppliers with low trust and maintaining high quality is a key for competition (Sako, 2006, p. 267). The empirical part of the study confirms the importance of trust for supplier relationships and shows that it has an influence on the business performance and on the business relationships. Narasimhan et al. (2008), write about the complexity of trust in a business relationship and how the management of business relationships determines the level of trust in the relationship. (Narasimhan et al., 2008, p. 25) This complexity was noticed in the empirical part of the study and how much the level of trust can vary in a business relationship depending on how well the relationship is nurtured.

With low trust suppliers, when the level of trust was low already, people considered it to be nearly impossible for these kinds of suppliers to become high trust suppliers during

the tough times of a pandemic. Low trust suppliers were already not trusted enough for a reason and delivery problems during Covid-19 usually made the situation and relationship worse and decreased people's trust in their low trust suppliers. Low trust suppliers' performance during Covid-19 was usually considered poor and causing dissatisfaction and frustration to the buying party which naturally influences trust in a negative way. According to most of the respondents, their level of trust in their low trust suppliers is even lower now during the pandemic than before. The situation is different with high trust suppliers. Most of the people see that even though Covid-19 has caused several challenges and problems with deliveries, their trust in the high trust suppliers has even increased during the pandemic. Most of the respondents have been pleased with their high trust suppliers' performances during Covid-19 and even though there have been problems and sometimes the suppliers have failed to perform as wished from the buyers' side, people still do not consider the level of trust to have decreased. According to them, if trust is on a high level already, a few hardships on the way will not change it if the supplier shows a desired attitude.

The second research question to be answered was what are the factors that have influenced the strengthening of trust. Kwon (2004) writes that several things influence trust-building, for instance, information sharing and communication, reputation and previous experiences, previously perceived satisfaction, and conflict situations and behavior during them. (Kwon, 2004, pp. 6–9) Also Seppänen enhances the crucial role of communication for trust-building and according to him, open communication leads to the strengthening of trust. (Seppänen et al., 2014, p. 10)

The empirical part of the study shows that in those cases where the trust in low trust suppliers has improved, it is typically a result of improved communication. Since conflict situations can be considered a critical moment for trust, if handled well and in this case communicated well, even in such situations the level of trust can increase. Compared to low trust suppliers, with high trust suppliers, several factors for the strengthening of trust were found. Communication was mentioned here as well to be one of the most

important things for increasing the level of trust, followed by closer collaboration, flexibility, and appreciation towards the relationship parties. People also consider that the trust in high trust suppliers is on a higher level than ever, thanks to the challenges brought by Covid-19 and how it has forced the business relationships to change and improve.

According to Yee et al. (2010), people's behavior in a business relationship defines the level of trust in a business relationship. (Yee et al., 2010, pp. 144–145). The empirical part of the study confirms the major role of behavior in trust development. The study shows that, for instance, flexibility, respectful attitude, and trying one's best are appreciated by the other party of the business relationship, and an indifferent attitude was considered one of the most harmful types of behavior for trust. Behavior and how the other business party is treated shows where a company's priorities are and if the business party realizes that they are not the priority of their partner, the whole business relationship can be harmed. Vice versa, if a company shows that their business partner is their priority, it can strengthen the trust in the business relationship.

The third research question was what are the factors that have influenced the loss or decrease of trust. According to Davies et al. (2016), several aspects can negatively influence the level of trust. For instance, mistakes, lying and not telling the truth, unfair behavior, not accepting criticism, bending the law and irresponsible acting can result in a weakening of trust (Davies et al., 2016, pp. 1429–1431). These aspects were confirmed in the empirical part. Most of the respondents say that the level of trust in their low-trust suppliers has decreased due to various reasons. Previous and already existing problems got worse during the pandemic, lack of visibility, using the pandemic as an excuse, quality issues, lack of supplier audits, important people for the relationship were missing and suppliers tried to benefit from the situation by lifting prices which was not fair to the buyers' side. Compared to low trust suppliers, only a few people considered their trust in the high trust suppliers to have decreased. The reasons were usually decreased level of visibility due to lack of visits and instability of the relationships.

6.2 Managerial implications

The results of the study show how differently the delivery problems caused by Covid-19 have impacted the low trust suppliers compared to the high trust suppliers. As the study shows, there are reasons why low trust suppliers have a lower level of trust than high trust suppliers. Building and maintaining trust requires time and effort and trust is not a permanent state of the relationship and it needs to be nourished. Different relationships require different actions and the empirical part of the study shows what kind of different actions could be taken to work on the trust with low and high trust suppliers.

The study has shown that low trust suppliers tend to behave differently compared to high trust suppliers. Both suppliers have been facing problems during the pandemic and to some extent, the problems have been similar but still the trust in low trust suppliers has decreased and the trust in high trust suppliers has increased. The main reason for this is the different attitudes and actions of the suppliers. Generally, high trust suppliers are trusted since they even before the pandemic have shown desired behavior and actions and low trust suppliers have not. As the study shows, for practitioners it is important to define the differences between low and high-trust suppliers and after that choose the actions to be taken based on how much the suppliers are trusted. Low trust suppliers seem to require more control and follow up with their actions than high trust suppliers and continuous and efficient communication and close collaboration might save the difficult situations by giving more time and information for the buyers' side to react to the occurring problems. Therefore, reminding the suppliers to communicate as much as possible might be a good idea to improve the relationship. A relationship includes two parties and they both need to be willing to do the work in order for the improvements to be efficient. As the study shows, communication and collaboration are key elements of a functioning supplier relationship and attitude counts a lot. As seen in the study, when high trust suppliers have problems or even fail to deliver the desired service if they try their best, communicate well, and want to collaborate with the buying party, the level of trust of the relationship can be even increased.

The importance of trust in a supplier relationship can not be highlighted enough and as the study shows it can either ruin or save a supplier relationship. Therefore, practitioners should evaluate their suppliers based on their actions and behavior and based on that define how much the suppliers are trusted. As the study shows, a high level of trust is not always needed and organizations can use low trust suppliers for less crucial and less expensive purchases but with projects involving a lot of capital, it is wise to use a high trust supplier to ensure the success of the business operations and avoid risks. When challenges occur during Covid-19 it is also important to remember that everybody lives through the same situation and sometimes even changing the supplier does not help. What matters is the attitude, trying to work on the relationship with a supplier that has failed but has tried its best and put effort to fulfill the customers' wishes is wiser than trying to work on the relationship with a supplier that does not care. Also if a supplier constantly fails to perform as desired it might be wise to consider changing the supplier.

6.3 Limitations of the study

The study focuses on companies operating in the technology industry and how these kinds of companies have perceived the changes brought by the pandemic. Since the study focuses exclusively on one industry, the results of the study are targeted only at the technology industry. The results might vary depending on the industry in question and therefore the results can be implemented only in the technology industry. Even though the sampling of the questionnaire of this study was satisfactory, it is also important to remember that the empirical results of this study are the result of this amount of sampling and the results might change with various sampling amounts. Thus, it can not be generalized that the results of this study are applicable to the whole industry.

Situations change rapidly during the pandemic of Covid-19 and therefore the situations with the relationships with suppliers might also change during the pandemic. As some respondents mentioned, at some point during the pandemic the relationship has been

better and at other times worse. Therefore the results of this study might not be applicable for the whole duration of the pandemic and until Covid-19 ends, situations might still constantly change in one direction or another.

6.4 Suggestions for future research

This study has focused on the changes in supplier relationships during the pandemic. This study has shown that a lot has changed in the supplier relationships in terms of trust and the impact of Covid-19 on these relationships has been both negative and positive. It would be an interesting aspect to continue the study after the pandemic and see how the situations are different from the results conducted in this research. The different phases of Covid-19 impact the supplier relationships differently and for many suppliers, the very beginning of the pandemic has been the hardest period. Learning to live in the new "normal" surely changes the suppliers' operations and new ways of doing things have been implemented in order to survive through the pandemic. Nobody knows when and if Covid-19 will end but the future state of the world surely differs from the current one and therefore it would be compelling to compare the states of the supplier relationships brought up in this research compared to their states in the future.

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APPENDICES

1. APPENDIX. INTERVIEW QUESTIONS

This questionnaire aims to find out how the delivery problems caused by Covid-19 have impacted the trust in supplier relationships. The questionnaire begins with general questions and is later divided into two parts: supplier relationships with low trust and supplier relationships with high trust. Thank you for participating!

INTRODUCTION

- o   What is your educational background?

- o   How long have you been working in this company?

TRUST AND SUPPLIERS

- o   What is the role of trust in business relationships? Does it vary?

- o   What builds trust in relationships?

- o   What ruins trust?

1. PART

This part of the questionnaire deals with supplier relationships with low trust. When answering these questions, please think about 1–3 of your supplier relationships with low trust before the beginning of the pandemic. It is recommended to write them down and answer the questions with these relationships in mind.

DELIVERY PROBLEMS

- o What kind of delivery problems have you experienced during the pandemic with suppliers with low trust?

- o What kind of attempts have been made in order to fix these problems?

- o How successful have these attempts been?

- o What kind of role has Covid-19 had on these delivery problems? Have they occurred because of it or despite it?

- o How has it been doing business with suppliers with a low trust who have had delivery problems? Has something changed in the relationship?

- o Have you had to end any of these supplier relationships because of delivery problems? Yes/no

TRUST

- o How has Covid-19 impacted the trust in supplier relationships with low trust?

- o What is the role of delivery problems in the changes of trust in this kind of relationships during the pandemic? What kind of delivery problems have impacted the trust?

- o How was the reaction of both sides of the relationship to these delivery problems?

2. PART

This part of the questionnaire deals with supplier relationships with high trust. When answering these questions, please think about 1–3 of your supplier relationships with high trust before the beginning of the pandemic. It is recommended to write them down and answer the questions with these relationships in mind.

DELIVERY PROBLEMS

- What kind of delivery problems have you experienced during the pandemic with suppliers with high trust?

- What kind of attempts have been made in order to fix these problems?

- How successful have these attempts been?

- What kind of role has Covid-19 had in these delivery problems? Have they occurred because of it or despite it?

- How has it been doing business with suppliers with a high trust who have had delivery problems? Has something changed in the relationship?

- Have you had to end any of these supplier relationships because of delivery problems? Yes/no

TRUST

- How has Covid-19 impacted the trust in supplier relationships with high trust?

- o What is the role of delivery problems in the changes of trust in this kind of relationships during the pandemic? What kind of delivery problems have impacted the trust?

- o How was the reaction of both sides of the relationship to these delivery problems?