



**SUCCESS FACTORS IN BUYER-SUPPLIER COOPERATION DURING A
GLOBAL CRISIS**

Lappeenranta–Lahti University of Technology LUT

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Examiner: Professor Veli Matti Virolainen

ABSTRACT

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Success factors in buyer-supplier cooperation during a global crisis

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Keywords: Buyer-Supplier Relationship, Supplier Relationship Management, Cooperation, Collaboration, Crisis, Crisis Management COVID-19, Supply Chain Management.

This Master's thesis investigates the critical success factors in buyer-supplier cooperation during a global crisis, with a specific focus on the grocery retail industry. The background of the thesis is the unprecedented disruptions caused by the COVID-19 pandemic, which highlighted the vulnerabilities in global supply chains and the necessity for robust cooperation between buyers and suppliers.

The thesis identifies key factors that promote and disturb cooperation during the crisis, drawing on both literature and empirical data collected through thematic interviews from professionals in the Finnish grocery retail industry.

Key findings reveal that communication, information sharing, trust, long-term relationships, and flexibility are among the most important factors in fostering successful cooperation. Conversely, factors such as delayed information sharing, lack of transparency, and supplier complexity can significantly disturb cooperation.

TIIVISTELMÄ

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Ostajan ja toimittajan välisen yhteistyön menestystekijät globaalien kriisien aikana

Kauppatieteiden Pro Gradu -tutkielma

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Avainsanat: Ostaja-toimittaja suhde, Toimittajasuhteiden hallinta, Yhteistyö, Kriisi, Kriisinhallinta, COVID-19, Toimitusketjun hallinta.

Tässä Pro Gradu -tutkielmassa tutkitaan kriittisiä menestystekijöitä ostajan ja toimittajan välisessä yhteistyössä globaalien kriisien aikana ja keskitytään erityisesti päivittäistavarakaupan toimialaan. Tutkielman taustalla ovat COVID-19 pandemian aiheuttamat ennennäkemättömät häiriöt, jotka korostivat maailmanlaajuisen toimitusketjun haavoittuvuutta ja ostajien ja tavarantoimittajien välisen vankan yhteistyön välttämättömyyttä.

Tutkielmassa tunnistetaan keskeisiä tekijöitä, jotka edistävät ja häiritsevät yhteistyötä kriisin aikana. Tunnistamisessa hyödynnetään sekä kirjallisuutta että empiiristä aineistoa, joka on kerätty teemahaastattelulla suomalaisen päivittäistavarakaupan alan ammattilaisilta.

Keskeiset havainnot osoittavat, että kommunikaatio, tiedon jakaminen, luottamus, pitkäaikaiset suhteet ja joustavuus ovat erittäin tärkeitä tekijöitä onnistuneen yhteistyön edistämiseksi. Sitä vastoin sellaiset tekijät kuin tiedon jakamisen viivästyminen, avoimuuden puute ja toimittajien monimutkaisuus voivat häiritä yhteistyötä merkittävästi.

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 Background	2
1.2 Theoretical Framework and Research Questions.....	3
1.3 Limitations	5
2. LITERATURE REVIEW	7
2.1 Buyer-supplier cooperation under the influence of disruption	13
3. SUPPLIER RELATIONSHIP MANAGEMENT	18
3.1 Background and meaning of SRM.....	18
3.2 The process of the SRM.....	20
3.3 COVID-19.....	21
3.4 SRM in Grocery Retail Industry	22
4. BUYER - SUPPLIER COOPERATION	24
4.1 Characteristics of cooperation.....	24
4.2 Classification of cooperative relationships	28
5. EMPIRICAL FINDINGS	33
5.1 Research methodology and data collection.....	33
5.2 Interviewees	34
5.3 Buyer Supplier Cooperation during crisis.....	35
5.3.1 Promoting factors	39
5.3.2 Disturbing factors.....	43
6. DISCUSSION AND CONCLUSIONS	46
6.1 Research Questions	46
6.2 Further Research Opportunities	56
REFERENCES	57

APPENDICES

Appendix 1. Interview questions.....

1. INTRODUCTION

At the end of 2019 and the beginning of 2020, the world faced an unprecedented event when the COVID-19 pandemic started in Wuhan, China causing respiratory illness including symptoms such as fever, cough and difficulty breathing. Gradually, the pandemic spread around the world and by February 2020, cases began emerging several countries. The numbers reflect the scope and seriousness of the situation: according to the WHO (2021), more than 1 300 000 corona-related deaths were reported in Europe, and according to Eurostat (2021), GDP per capita decreased by approximately 6,4% in 2020 compared to the level of 2019. In the light of these numbers, it can be state that the pandemic caused significant social, economic and public health challenges and directly or indirectly affected almost everyone's everyday life in one way or another.

As COVID-19 pandemic spread around the world, it forced people to adopt completely new ways of working in everyday life. The transition to remote working, mandates for wearing masks, bans on gatherings, travel restrictions, restaurant closings and curfews are just some of the restrictions that appeared and became part of people's everyday life. Companies in different industries also faced completely new challenges when the pandemic spread explosively among people. This appeared for example, in unexpected absences at workplaces and large ports and factories were closed due to infections. The work culture also experienced significant changes. Technological leap happened instantly, and it was inevitable when the pandemic transferred communication practically entirely to online platforms. As the number of physical contacts collapsed, personal relationships with both colleagues and business partners faced a significant threat.

Unknown world situation, prevailing uncertainty and preparation for the new normal affected also on consumer behaviour. In the early stages of the pandemic and when the first restrictions came into force, a grocery retail industry experienced a huge spike in demand where the stores and their suppliers could not prepare for. Safety stocks melted through the supply chains and combined with the consequences of the spread of the pandemic, supply chains around the world experienced significant disruptions. Even after the beginning demand spike, the grocery retail industry achieved all-time high sales figures which also tested the performance of supply chains. Based on these issues the topic for this thesis

emerge as this work focuses on examining success factors in the cooperation between buyers and suppliers during a global crisis in grocery retail industry.

1.1 Background

Globalization, technological development, internet systems and demand from upper management are factors that have been formulate supply management from an administrative function to more strategically function. Increased role means that supply management and purchasing activities have also a greater influence on companies' value growth. (Giunipero et al. 2006). Based on this, themes related to supply management have received attention and efforts have been made to develop different process parts further. One of the parts is the cooperation between buyers and suppliers. Cooperation and collaboration are often used interchangeably and there is no clear theory for their differences. However, Xu et al. (2017) have managed to identify different features between these two terms. The key difference between these two terms is that in collaboration the companies work more comprehensively towards a shared goal with both bearing responsibility, while in cooperation cooperative activities towards a common goal take place more independently through companies own processes. Based on this, the term cooperation is used in this work because although the purchasing organization and suppliers have a common goal of delivering products available to consumers, they are responsible for their goals independently according to their responsibility areas, clearly representing the buyer and seller organizations.

The increased complexity and competitiveness of the business environment are strongly linked to relationships between buyers and suppliers. Companies have realized that in order to survive and succeed in today's competitive environment, they need to find partners and alliances. This is emphasized especially during exceptional times. One way to tackle these challenges is to practise cooperation. In the article of Morsy (2014) Wuyts & Geyskens (2005) state that more cooperative relationship between buyers and suppliers reduce the degree of uncertainty and according to Sarang et al. (2018) competitive advantage can be revealed from buyers and suppliers' relationships. These reflect well the potential that is hidden in the buyer-supplier relations and cooperation.

COVID-19 pandemic and its gradual progression through the supply chains revealed how unprepared various actors were for supply chain disruptions. The world has faced crises before, such as global economic crises, but a crisis like COVID-19 was different compared to these. Krause & Ellram (2014) discuss about how economic downturn effected on the relationship between buyers and suppliers. According to authors companies reduced purchases, cut inventories and some of the businesses were forced to shut down. Here is a significant difference compared to COVID-19 situation because as people stayed mostly at home during the pandemic the saving rate of people increased and that increased people's purchasing power. Also, when people stayed mostly at home, the consumption of groceries increased significantly. There was no change to go out to a restaurant. This led to opposite behaviour since companies increased their purchases and inventories in answer to increased demand and supply chain bottlenecks. It is understandable that this was reflected in the categories like cleaning products and basic food products, but pandemic also revealed trends like pizza making and different experimental food recipes which caused particularly high demand to certain goods that had not faced similar demand before. Some other interesting phenomena's that COVID-19 develop were for example the popularity of getting a pet and increased birth rate. Such phenomena created pressure on certain product categories that are not necessarily prepared for the required demand. In addition, grocery retail industry is anyway characterized by high volumes and countless number of products, some of which also have limited shelf lives. These factors mean that the flow of goods is fast and there are several different operators in the industry. Thus, the structure of supply chains is already complex without unexpected changes in demand and trends.

1.2 Theoretical Framework and Research Questions

The theoretical framework of this thesis is presented in Figure 1. The framework is built on the foundation of Supplier Relationship Management, from which the main topic of the thesis is formed, cooperation between buyer and supplier during a global crisis. The perspective is limited to the buyer's point of view, so the thesis does not consider the subject from the supplier's perspective. The promoting and disturbing factors shown in the figure represent sub research questions to provide a clear breakdown of the results. The sub research questions also help to identify the most important factors or driving factors as

shown in the figure, which answers the main research question of the thesis. The research questions are discussed in more detail below.

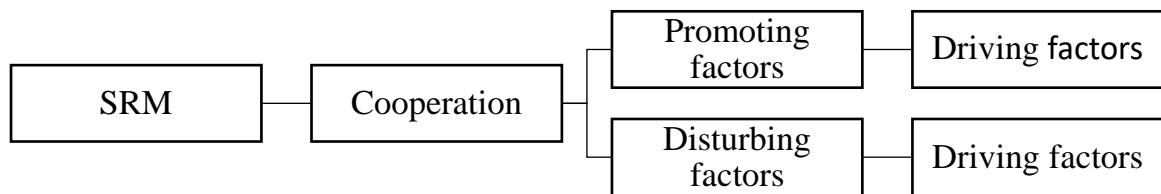


Figure 1. Theoretical Framework of the thesis.

As it mentioned in the introduction chapter companies have recognized the importance of supply management and due that it has develop towards more strategically function. This can be seen also on current academic literature that strongly focus on strategic perspective. However, the operational side of supply management and themes related to that are given less attention. Topics are mainly focused on two areas: a cooperation strategy or the adaption of the cooperation practises in implementing the cooperation strategy (Park et al. 2010). In other words, the cooperation itself and its appearance in operational practice has been left out of the examination. Another missing perspective is crisis. As it discussed earlier COVID-19 pandemic was extraordinary crise and it caused different combined scenarios that has not been occur at the same time in the market. This reveals a research cap and objective to this thesis as it aims to recognize factors that occur in the operational action between buyers and suppliers. To achieve the objectives of this thesis the main research question is formed as follows:

1) *“What factors drive the dynamics of buyer-supplier cooperation during a global crisis?”*

The main research question aims to draw together the main findings of the thesis, which are related to the cooperation between buyers and suppliers during a global crisis. The aim is to present the most important factors that influence cooperation. The importance of factors will be assessed through literature and empirical research. To answer the main research question, the main research question is divided further into two sub research questions:

2) *“What factors promote cooperation during a global crisis?”*

AND

3) *“What factors disturb cooperation during a global crisis?”*

The sub research questions provide a clearer breakdown between the factors and create structure for the empirical part. The sub research questions also help to identify which factors promote the cooperation and should therefore be fostered and which factors disturb the cooperation and therefore be avoided.

1.3 Limitations

Although the aim of this thesis is to examine the success factors of cooperation between buyers and suppliers, this thesis is limited to address the subject only from the buyer's point of view. The main focus of the thesis is on the operational activities of the cooperation between buyers and suppliers, so the strategic perspective of the cooperation is limited out in this thesis. Even though the perspective is on the operational activities the thesis does not provide operative instructions for purchasing organizations or buyers.

Background for this thesis is collected from different articles that consider various industries but the thesis itself focuses on a grocery retail industry. Therefore, the thesis should not be used as a general guideline for any business industries. In addition, the empirical part of the

thesis is limited only to a Finnish grocery retail industry. The grocery retail industry in Finland is oligopolistic, so the utilization of observations in other grocery retail markets is not comparable. Another limitation is that the thesis does not cover the entire Finnish grocery retail industry thus the empirical part of the study is based on a one company that operates in the industry.

2. LITERATURE REVIEW

A literature review was conducted to gain a deeper understanding and knowledge related to the topic and find evidence of existing literatures regarding to the topic. Literature review summarises, evaluate critical and give a description of papers that are related to the thesis. It produces an overview of sources that the writer has examined during the research, and it illustrate how the thesis fits within a larger field of study (Fink 2014). Also, the literature review provides an excellent platform to reveal gaps where further research is needed. In this case, it is necessary that the review is thoroughness and well-conducted through integrating findings and perspectives from many papers. There are different approaches to conduct literature review such as qualitative, quantitative, systematic, semi-systematic or integrative review. (Snyder 2019) Due to irrelevance, a closer examination of different literature reviews is ignored, and the focus is only on the chosen approach.

Cooperation between buyers and suppliers and factors that affect to the relationship of these two parties under a crisis were examined in this review systematically. The literature review was performed systematically because it allows to gain transparent and reliable way to review articles where bias is minimized (Snyder 2019). Another reason for conducting literature review systematically is that the features connected to the topic are new and there might be a gap in literature that the review can reveal. Kraus et al. (2020) share this vision when they state that systematic literature review can create new insights when there is the lack of a solid theoretical design.

The process of systematic literature review can be divided into stages and there are several different ways to describe the process. Generally, authors are identified 3-10 steps but however they all have the same key stages: planning the review, conducting the review and reporting of the findings. (Kraus et al. 2020) Same authors recognize the following stages into review process that are presented in the Figure 2.

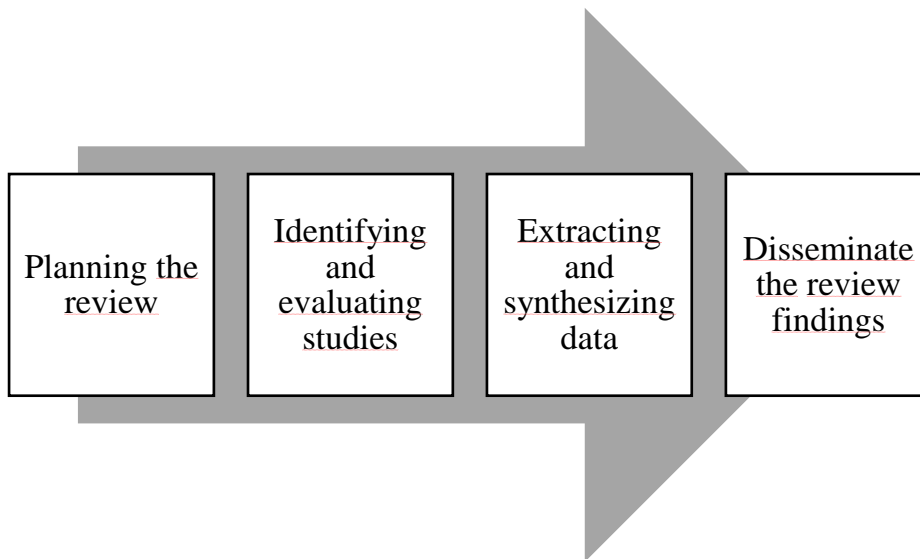


Figure 2. Systematic literature review process (Kraus et al. 2020).

Kraus et al. (2020) discuss these stages further and presents that planning stage involves the need identification and developing protocol. This include checking existing literature related to the topic and determining a research question, hypothesis, or a general aim where the review is going to answer. A review protocol contains factors for the literature search such as search strings, databases, literature include and exclude criteria and quality criteria. Through this a review protocol ensure a transparent and high-quality process that is a basis for the research. Quality criteria such as examining only peer reviewed articles can be used in the stage of identifying and evaluating studies. Also, examining titles and abstracts are the way how the author can identify articles that are suitable for the protocol. According to Kraus et al. (2020) the third stage involves conducting data extraction and data synthesis. Tables are helpful in data extraction for creating a transparent overview where all the necessary information of articles is presented. The synthesis of the literature review includes actions such as analysing and comparing literatures. It is important that synthesizing is performed through an objective perspective, so the synthesis is not biased, and results are not contradicting. (Kraus et al. 2020)

Referring to the above process steps, in this literature review the search process started by planning the review. In this case the subject of study is known, thus the scope and boundaries were naturally limited by the subject for the literature review. Actual literature review started by the definition of search words that were related to the topic "*Success factors in buyer-supplier cooperation during a global crisis*". Based on the topic search words formulated to

“buyer AND supplier AND cooperat* OR collaborat* OR partnership OR co-operation OR relationship AND cris* OR disruption OR covid OR stress OR disturb*”. In this literature search, Scopus was used as the database. Utilizing the search string, Scopus revealed 160 articles. Results were refined by limiting subject areas to "*Business, Management and Accounting; Economics, Econometrics and Finance*", showing only document types "*Article*" and setting language to "*English*". Using the above search words and limitations, 94 documents were found. These articles were reviewed by title-level and further by abstracts. Based on that 14 articles were selected to closer examination. This search process is presented in the Figure 3.

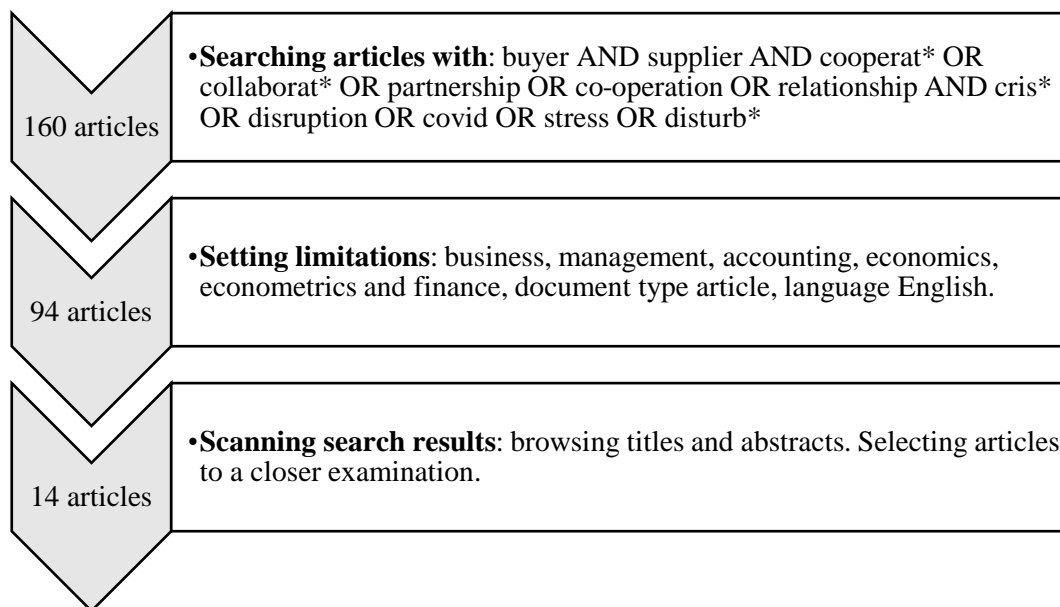


Figure 3. Literature search process.

When examining the search results, it can be said that there are not many articles that illustrates actions between buyers and suppliers during a crisis. This view is supported also by Krause & Ellram (2014) who states that there is the limited amount of research how cooperative buyer-supplier relationships perform under stress. Table 1 shows general information about the selected articles. It can see from the table that all the articles are relatively new as they were published between 2013 - 2023 and they mainly focus on the manufacturing industry as 6 studies out of all can be found to be directly related to manufacturing. There is a wider dispersion in the target countries of the study.

Table 1. Overview of the literature review.

Authors	Industry	Country
Bag et al. (2023)	Engineering	South Africa
Hu (2022)	Personal protective equipment	Italy
Aslam et al. (2022)	Industries in general	Pakistan
Wissuwa et al. (2022)	Manufacturing	Germany
Daghar et al. (2022)	Manufacturing	Japan
Van Der Walt et al. (2021)	Third-party logistics	South Africa
Matopoulus et al. (2019)	Grocery retail	Greece
Reimann et al. (2017)	Unknown	USA, Europe and China
Scholten & Schilder (2015)	FMCG	Netherlands
Krause & Ellram (2014)	Safety, oil, auto and wine manufacturing	Unknown
Wang et al. (2014)	Manufacturing	China
Brandon-Jones et al. (2014)	Manufacturing	UK
Grötsch et al. (2013)	Automotive manufacturing	Germany
Botes et al. (2017)	Petrochemical	South Africa

Table 2 shows fundamental factors that emerged from the reviewed articles. A clear difference can be seen that factors that promote cooperation during a crisis appear in the literature significantly more than disturbing factors. An explanatory factor may be that the promoting ones are more recognizable and attracts more attention than the disturbing factors or the disturbing factor may be only a small part of the relationship in which case it is not considered to be significant for the operations. In addition, promoting and disturbing factors can be mutually exclusive in which case they do not appear in the study at the same time. For example, a long-term cooperative relationship cannot occur at the same time as a transactional relationship if the study deals with a specific buyer-supplier relationship and it has been found to be the long-term cooperative relationship. The solution is to expand the search terms of the literature review to also cover relationships where problems are more likely to occur, for example a transactional relationship.

Table 2. Factors highlighted in the literature.

Promoting factors	Disturbing factors
Relational relationship	Transactional relationship
Long-term relationship/personal relationship	Adversarial relationship
Close relationship	Independent relationship
Dependent relationship/interdependence	Supplier complexity
Relational governance	A high number of suppliers
Relational investments	Linguistic challenges
Buyer dominance	Buyer's internal communication
Respect	Opportunistic behaviour
Trust	The lack of information about disruption
Commitment	The lack of trust
Loyalty	The price of relational investments
Openness, extroversion	Information sharing delay
Visibility of supply chain	Information complexity
Honesty/Integrity	Power symmetry
Organizational and organizational justice	Safety stocks
Accountability	Crisis/disruption
Approachability	Legislation
Humbleness	
Willingness to do extra for another	
Consistency	
Previous crises experience	
Recourse scarcity	
Ethical reputation	
Communication	
Resource sharing	
Proactivity	
Information sharing	
Virtual meetings, meetings	
Cost-focusing	
On-site support	
Supplier problem solving	
Supplier abilities	
Prepared crisis plans and shared survival goals with supplier	
Joint actions	
Goal congruence	
Social capital	
Mutual knowledge with supplier	
Flexibility	
Digital tools/Connectivity	
Risk detection system	

The literature contained a total of 45 promoting factors of which 7 factors were repeated most often in the literature. These factors are “*Information sharing*”, “*Trust*”, “*Commitment*”, “*Communication*”, “*Long-term relationship*”, “*Dependent relationship/interdependence*” and “*Relational relationship*”. These factors and how many times these were mentioned in the literature can be found from Table 3.

Table 3. Promoting factors in the literature.

Promoting factors	Mentioned in the literature
Information sharing	7
Trust	6
Commitment	5
Communication	5
Long-term relationship	4
Dependent relationship/interdependence	4
Relational relationship	3

It is worth noting that the factors that appeared most often reflect the activity more on a general level while the ones that appeared the least reflect the activity in more detail, such as the factor “*Virtual meetings*”. On the other hand, this reflects the overlap of the factors, i.e. many of the factors are related to the more general level factor or without the more general level factor there cannot be a more detailed factor. For example, the factor “*Close relationship*” is connected to “*Relation relationship*” and “*Meetings*” cannot occur in a relationship if there is no “*Communication*”. These factors can also be synonymous with each other, such as “*Openness*” and “*Approachability*”. There are a total of 17 disturbing factors of which “*Transactional relationship*”, “*Opportunistic behavior*” and “*Crisis/disruption*” were mentioned the most often. The same expression can also be seen in the disturbing factors as in the promoting factors because for example “*Transactional relationship*” and “*Independent relationship*” are strongly connected to each other. More detailed descriptions did not occur at the same level as in promoting factors, which indicates a smaller number of disturbing factors. The emerging topics from the literature are examined in the next subsection.

2.1 Buyer-supplier cooperation under the influence of disruption

Bag et al. (2023) emphasize building trust to avoid supply disruptions during uncertain times. According to the study long-term relational relationships should be emphasized during uncertain times as transactional relationships do not work during a crisis. However, non-regular suppliers are also found to share resources with buyers during uncertain times which is explained by the fact that the scarcity of resources positively affects cooperation (Wang 2022). Also, the other party's positive ethical reputation and candid relationships promotes cooperation during a crisis. It is noteworthy that this examined buyer and supplier relationships during COVID-19 in South Africa engineering industry.

Also, Hu (2022) recognize the importance of long relationships between buyer and supplier thus these interdependent relationships increase supply chain resilience. The text specifies that close relationships reduced the adverse effects of the pandemic which is seen as important when the suppliers' products are technical. Identified actions were continuous communication which was helped by the digital leaps taken by companies as well the social capital and information sharing. Flexibility was also brought up in relation to supplier's payment terms and minimum order quantities. In the same study Sharma et al. (2020) sees cooperation as in a cultural factor that contribute data-sharing and joint-problem solving among companies.

Wanke et al. (2022) view buyer-supplier cooperation through commitment. Commitment existence in long-term relationships strengthens the level of cooperation while its weakening between companies' effects negatively to the level of cooperation. Commitment creates the basis for achieving common goals through shared resources and capabilities. They also recognize that trust is a necessary part of cooperation. This is also connected to the tolerance of disruptions because when relationships are strong disruptions create less unfavourable effects on the buyer-supplier relationship. For factors that disturb cooperation authors recognize adversarial relationships thus these relationships suffer the lack of trust, and they are not rooted.

Wissuwa et al. (2022) examine selecting a resilient supplier based on disruptions that buyers have experienced. Authors do not actually highlight the perspective of the crisis, but the

study is based on supply disruptions caused by COVID-19. Authors approached the subject through the complexity of the supplier where the internal complexity of the supplier increases disruptions experienced by the buyer. They also identified buyer-supplier dependency as a factor that either increases or decreases the occurrence of disruptions. According to the study when the supplier is highly dependent on the buyer it has the motivation to prevent disruptions and thereby reduce the negative impacts brought by complexity while when the dependency is low there is no motivation which leads to an increase of disruptions. Authors present different purchasing strategies such as arm-length relationship as a solution to deal with supplier complexity and at the same time increase the dependency ratio.

In the study of Daghars et al. (2022) authors recognize a regular face-to-face information sharing interactions that took place before COVID-19 as a relationship strengthening factor that helped the transfer of meetings to virtual during the pandemic while it remained a relationship-strengthening activity. As another factor that improves cooperation, they point to previous crises experienced by the buyer and supplier thus they might already have prepared plans in case of crises, common survival goals and developed knowledge on how to operate together in the crisis and which help cooperation during a crisis. Both factors are linked to the fact that the developed cooperative relationship before the crisis and the buyer's knowledge of the supplier's operating methods helped cooperation. The authors identified the large size of the buyer and the linguistic challenges of the foreign suppliers as factors that disturb cooperation. The involvement of many people and departments in the buyer's organization decision-making, it was found to slow down the internal flow of information, which leads to a weakening communication to the supplier. The increase of information sharing during pandemic revealed suppliers' challenges to communicate in English.

Van der Walt et al. (2021) base their study on sharing risk information during disturbances. According to the results, long-term personal relationships create trust, loyalty, openness, honesty which all increase the sharing of information between companies. When a personal relationship exists, it strengthens the cooperation between companies. Other identified factors that promote personal relationships are accountability, approachability, commitment, humbleness, willingness to go the extra mile for one another, consistency and extroversion. According to the authors, personal relationships increase the complexity of managing

information which may lead to information spreading to outside parties. It also poses a threat to opportunistic behaviour where shared information can be used against the information sharer.

Organizational justice has been identified as a factor positively affecting cooperation during a crisis in Matopoulus et al. (2019) study. The study reveals that organizational justice between companies leads to commitment which according to the authors is one of the requirements of cooperation. Other identified requirements are trust and mutual respect between companies. According to the results, the positive effect of organizational justice on relationships is highlighted when the level of crisis decreases, while when the crisis is serious, organizational justice is perceived to have no effect on the relationship.

The study of Reiman et al. (2017) lacks the perspective of the global crisis but they approach the topic through supplier disruptions and how the buyer's responses to it affect the relationship between companies. According to the authors, the existence of relational governance is essential for cooperation. Relational governance is used to refer to a reliance to committed and cooperative relationships. Buyer organizations use either buffering or bridging activities with suppliers. Bridging actions like on-site support and meetings together with relational governance and suppliers' recovery actions like problem solving strengthen cooperation. On the other hand, buffering actions like building safety stocks weaken cooperation if there is no relational governance and recovery activities. In addition, the authors identified that power symmetry is related to conflicts between the buyer and supplier, and buyer dominance is connected to the development of cooperation. This is partially explained by cultural factors as the imbalance of power relations is generally acceptable in China where some of the study companies were located.

Scholten & Schilder (2015) recognize information-sharing, goal congruence, resources-sharing, communication and joint relationship efforts like joint decision-making, joint knowledge creation and incentive alignment as cooperative activities. Authors describes that information-sharing and communication improve visibility through transparency to detecting and responding disruptions. Also, mutually created knowledge increase visibility and confidence which authors mean knowledge between buyer and supplier how to act in the event of a disturbance. Sharing resources, different joint actions and information sharing

increases velocity to respond disruptions through effective cooperation. Another strengthen factor is a mutual dependency that also came up from the study of Wissuwa et al. (2022) in the form of dependent relationship. All of these are stated to engage companies resulting more resilient supply chain. For disturbing factors authors found delays in information sharing and the lack of information that are regarding to disruptions.

Communication, commitment, relational investments, interdependence and focusing on costs are recognized as positive cooperative activities in the time of economic downturn in the study of Krause & Ellram (2014). With communication, the buyer and supplier got closer in difficult times and with commitment, relations between companies were maintained and even strengthened. Relational investments were found to have a positive effect on relationships. Congruence in competitive priorities was shown to increase interdependence and thereby promote the formation of relationships and developing commitment. The authors also emphasize cost-focusing which was also found to increase interdependence and thus strengthen relationships. For the buyer and supplier who has cost-focusing in the fundamental of the business and relationship were found to work quite well during the downturn and focusing on costs during the downturn strengthened the relationship even further. Opportunistic behaviour of the buyer was recognized as a disturbing factor which disturbed the relationship between the companies. The crisis itself, which was in this case the economic downturn was also found to be one factor that negatively affects the relationship. The price of relational investments was also identified as challenge which is emphasized in exceptional times.

A relationship between buyer and supplier during a disruption is based on trust in the study of Wang et al. (2014). The weakened trust during the disruption is found to weaken the relationship but the authors found solutions to minimize its impact. One factor was ability which refers to skills, capabilities and characteristics that supplier can use to influence the relationship. Another recognized factor is integrity that was also considered in the study of Van Der Walt et al. (2021) as honesty. Also, procedural justice was found to be a factor that mitigate damaged trust which refers to fairness procedures that supplier perform to solve disruptions. The research shows that the lack of trust weakens the relationship and like Krause & Ellram (2014) found, also disturb or crisis itself can threaten the state of the relationship even if companies take mitigation actions.

Previously mentioned information sharing is also emphasized in the study of Brandon-Jones et al. (2014). In addition, authors found connectivity as a factor that positively effect on relationship and through that the visibility of supply chain and enhancing resilience and robustness during disruption. Connectivity is referred to technological infrastructure that is used to share information among companies. Same kind of idea was highlighted in the study of Bag et al. (2023) where digital tools were mentioned. Authors state that connectivity and information sharing enable achieving visibility that appear as better cooperation such as better understand about demand and inventory levels. For disturbing factor authors found the number of suppliers meaning that more suppliers mean complexity and more transactional relationship.

Grötsch et al. (2013) argues that proactive approach and relational relationship are solutions to block supply chain disruptions. By proactive, authors mean advance planning and actions like risk-reward sharing contracts that minimize risks before they emerge. In order that proactivity is efficient, authors propose a detection system for risks. As Daghar et al. (2022) and Scholten & Schilder (2015), also Grötch et al. (2013) identify that previous disruptions experienced with the supplier improve proactivity and thus cooperation during the next disruption. Other identified factors that promote cooperation have also come up earlier such as information sharing, trust, openness, commitment and loyalty which according to this study have emerged from relational governance.

Information sharing, communication and joint actions between the buyer and supplier are recognized as factors that promote cooperation and thus effect positively on supply chain resilience in the study of Botes et al. (2017). According to authors information sharing increase visibility and flexibility in the supply chain through quality data that is available for companies and based on that companies are able identify disruptions early and have time to do responsive actions. Cooperative communication enable identify ways to optimize supply chain and streamlining processes for disruptions and thus increase velocity. Joint actions are referred to planning and operational efforts that increase visibility, velocity and flexible through closer cooperation where decisions are made agile and quickly. Another promoting factors is mutual dependency between the buyer and supplier that increase cooperation. For disturbing factor authors recognize legislation that may prevent information sharing and thus effect on the level of cooperation.

3. SUPPLIER RELATIONSHIP MANAGEMENT

The goal of this section is to examine the theory behind of this thesis and create a basis for examining cooperation between buyers and suppliers. The section continues to describe what is the Supplier Relationship Management (SRM) and where does it aim for. After that, the process of SRM is described and finally, relevant SRM styles are presented.

3.1 Background and meaning of SRM

Attention began to be paid to the role of suppliers in the 1970s and 1980s when a group of different tools like Kaizen continuous improvement, Total Quality Management and Total Cost Management became part of business activities. With these, attention was drawn to cost optimization and quality. Japanese companies did this through suppliers and partnership relationships. The companies reduced the number of suppliers and the remaining contract holders were allowed to manage the lower tier suppliers. The same was tried to be copied also in other parts of the world with poor results when the relations with the suppliers changed only a little and they did not reach the partnership level. (O'Brien 2018) For example, the Americans created supply chains similar to the Japanese, but they did not change the basic nature of the supplier relationships. This led to disagreements over the implementation of best practices such as continuous quality improvement and annual price reductions. (Liker & Choi 2004)

In the 1990s, the international market environment became tougher where surviving required improving quality and reducing costs. One answer to this was found from purchasing activities that helped to manage costs and value. (Lindgreen et al. 2013) At the same time Supply Chain Management come up and supply base began to be seen as an important part of the purchasing organization businesses. A relationship began to develop with key suppliers and different goals began to be set. The relationships became closer and more cooperative, but actual SRM began after around the turn of the millennium. At this time, SRM became a tool to create order in the relations between buyers and suppliers while helping to achieve goals. It also became clear that, in order to maximize the benefits of the group of suppliers, it is more beneficial to focus on developing cooperative relationships with the most important suppliers. With this, for example the themes supplier management,

supplier performance measurement and supply chain management became part of the SRM thematic. (O'Brien 2018)

The development after this have been related to the accelerating globalization of the operating environment where standardization has been helpful. The publication of the BS 1100 standard in 2010 and in 2017 published ISO 44001 standard provide a roadmap for establishing and managing collaborative relationships with suppliers. (O'Brien 2018) Kumar argues for this by stating that companies have moved from transactional exchange to relational exchange which means that partnerships have replaced adversarial and arm's length relationships (Kumar 2005). In the 2010s, the prevailing themes have been technology and the utilization of data, environmental perspectives and now, the most recent, risk management activities such as working under a crisis due to the pandemic. Due to development, the SRM playing field has become diverse, where no clear consistent theme can be seen (O'Brien 2018).

As described above, the tightened competitive situation in the market has led to the consideration of Supplier Relationship Management where companies seek added value together with suppliers. Thus, SRM means a comprehensive structure that defines the framework for the managing and development of the relationship between buyers and suppliers. (Lambert & Schwieterman 2012) This indicates that SRM is a wide-ranging and wide concept where interpretation and frequency vary from company to company. Because of this, it is difficult to define it coherently. However, O'Brien (2018) has succeeded in identifying the most central SRM aspects which at the same time describe the multi-level occurrence of SRM: strategic collaborative relationships (SCR), supplier performance measurement (SPM), supplier improvement and development (SI&D), supplier management (SM) and supply chain management (SCM). SCR refers to developing relationships with a few strategically important suppliers. SPM literally means measuring the supplier's performance and SI&D includes different levels of improving the supplier's capabilities, either through simple operations or through more cooperative operations. Through SM, the supplier is managed through daily operations, for example daily interactions and development actions. SCM is the basis of everything, including the entire value chain all the way to the end customer, so it includes many different functions, such as the flow of information and goods, as well as warehousing and logistics. These introduced aspects are

connected to the process of SRM that can be divided into strategic SRM process and operational SRM process. These are introduced in the next sub-chapter.

3.2 The process of the SRM

The strategic and operational aspects of the SRM process can be separated but they are connected in the overall picture of the process. The strategic process builds a framework for the development and management of process, and it also define how the supplier is integrated with the purchasing organization. The operational process describes the implementation phase where strategic factors are put into practice. (Lambert & Schwieterman, 2012) The process described below indicate the different stages of SRM and it helps to understand how buyers and suppliers finally end up with the cooperation that is presented in more detail later in this thesis.

Strategic SRM starts by evaluating the characteristics of suppliers and through that it is decided which suppliers are potential cooperative partners for the buying company. This group is further segmented in the operational SRM process phase according to the companies' capabilities and the criteria that are given to them. Criteria are case-specific and should be decided according to what the buying company is aiming for with current and possible future suppliers. Therefore, criteria indicate which factors are important to the company and enable suppliers to be scored. In the operational SRM process, the above-mentioned phases include the actual review of suppliers and the identification of development opportunities. Based on that companies can be classified, for example according to the supplier's complexity and the buyer spend to that specific supplier. Classification helps to understand which category each supplier belongs to and thus actions can be allocated, such as closer cooperation with strategically important suppliers. (Lambert & Schwieterman, 2012; O'Brien, 2014)

As described earlier, it makes the most sense for the buyer to focus on developing relationships with only the most important suppliers to maximize the benefit. It is also realistic that the buying organization cannot develop the same level of relationships with all suppliers. For this reason, it is natural to perform the segmenting of suppliers, in order to find out on what basis suppliers are selected for possible cooperation. (O'Brien, 2014) In the

next step metrics will be developed for monitoring the supplier's performance. In the operational process this means the actual measurement, for example measuring the supplier's delivery reliability. The last step of the strategic SRM process is to determine the incentives for the supplier, so that the development continues positively in the future as well. (Lambert & Schwieterman, 2012)

3.3 COVID-19

COVID-19 pandemic revealed the vulnerability of supply chains and with that it became concrete how serious consequences a global disruption can cause for humanity and the world market. Only few companies had sufficiently comprehensive preparedness and crisis plans in case of the pandemic. Problems and disruptions realized within a short period of time which in turn made it difficult for companies to react. SRM develops from the relationships between buyers and suppliers where the importance of building and strengthening the relationship was emphasized by the pandemic. The increased costs due to the pandemic and the numerous delivery problems that developed due to the pandemic are consequences that can be influenced through SRM. Butt et al. (2022) presents a six-point strategy which considers the key focus points that have emerged due to the pandemic. By implementing these factors with SRM, it is possible for the purchasing organization to further develop its relationships with suppliers and improve suppliers' visibility and agility.

Rising costs were the picture of the pandemic and its aftermath. For example, supply chain disruptions and logistics bottlenecks had long-term direct and indirect effects on the rise in costs throughout the supply chain from raw materials to an end product. Therefore, it is appropriate to evaluate the effects of costs on the supply chain and the value that supplier brings to the supply chain and the purchasing organization. Another key point is planning orders in advance, which reduces the pressure from the supplier, giving more time to process the order. In practice, this meant longer lead times which was used to tackle for example, the previously mentioned logistical bottlenecks. (Butt et al. 2022) During the pandemic, the widespread sickness absences reduced the production capacity of suppliers and in that case the longer processing time helped to continue business. Butt et al. (2022) mentioned the sharing of critical information that importance is emphasized, and its amount should be increased during uncertain times. The information brings transparency to the processes and

aims to prevent bottlenecks in production and logistics, for example by informing about stock levels. The increase in information sharing has made it possible to deepen relations with suppliers and it has had a positive effect on the success of cooperative relationships.

As mentioned earlier in this text, the pandemic revealed vulnerability and the inadequacy of proactive crisis measures. With this, the fourth factor is the crisis awareness generated by the pandemic and how purchasing organizations and suppliers together make plans and actions in the case of major contingencies to avoid extensive supply chain disruptions. As a continuation of the previous point, the fifth point focus on developing relationships with suppliers further which means that attention is more focused on improving the supplier's functionality and locating the real supply chain problems that the pandemic revealed. The last point is to improve the visibility of the supplier by deepening the relationship between the buyer and the supplier by integrating functions with each other. A transparent overview of the supplier's activities increases agility and enhances decision-making during the crisis. (Butt et al. 2022)

3.4 SRM in Grocery Retail Industry

In a grocery retail industry, the relationships between buyers and suppliers are mostly long-lasting. This is influenced by the structure of the grocery market where large players operate on the side of buyers but also on the side suppliers. Finland's grocery retail industry is a good example as the market situation is oligopolistic with three large grocery chains dominating the market. In this case, the market situation pushes buyers and suppliers into a committed relationship, and they have a mutual desire to continue business with each other. This explains why buyer-supplier relationships are long-lasting, but they may exist as either cooperative or adversarial relationships, depending on the trust and commitment between the actors. (Kumar 2005) Trust between actors provides security for future and fair treatment even in uncertain times, so it is a key factor for long-lasting relationships. Trust reduces the threat of opportunistic behavior, increases certainty in solving problems and reduces transaction costs. The long-term cooperative relationship is based on relational interaction which aims to maximize benefits through several transactions while an adversarial relationship aims to maximize benefits from individual transactions. Also, in relational

interaction, the risk is shared between the parties and efficiency is achieved through joint synergies. (Ganesan 1994; Kumar, 2005)

With only a few actors acting as buyers, the market is characterized by power asymmetry which is why the suppliers are dependent on the buyers' actions. In the absence of trust and commitment and when the grocery chain has a dominant position, there is a risk for the purchasing organization's opportunistic behavior. The buyer's experience with a dependent supplier reduces the buyer's motivation to develop a strong cooperative relationship. Because of these, the supplier has an incentive for the long-term relationship when the buyer is dependent on them. Market diversity reduces dependence when there is a choice of products, customers and competitors. On the other hand, investing in the relationship increases the dependence between the buyer and the supplier, increasing the commitment between the parties. (Kumar, 2005)

4. BUYER - SUPPLIER COOPERATION

The adoption of cooperation came with the development of SRM in 1960s and 1970s when reduced suppliers' quantity changed the relationship of the remaining ones to closer, more cooperative and relational. Together with the transformation of buying into a strategic function that was happening at the same time, it created a basis for cooperation between the buyers and suppliers where the importance of integrated partnerships was recognized. (Lindgreen et al. 2013)

4.1 Characteristics of cooperation

A cooperation is an interactive activity between companies where you meet the other party and form psychological relationships in the hope that it will be long-lasting (Smith et al. 1995). A long-lasting relationship is one of the characteristics of cooperation with which the partnership forms a protection against disturbances, for example by already existing mutual crisis knowledge and how to act during crisis. Another protection that comes from cooperation is resilience, which has been shown to increase by cooperation and cooperative activities. Supply chain resilience refers to the flexibility, velocity, visibility and cooperation that enable the supply chain to prepare for disruptions, reduce the impact of disruptions and strengthen its capability to recover from disruptions. Flexibility makes coordination easier and helps to deal with uncertainty by allowing adaptation to unpredictable changes. This can be seen in the supply chain, for example in the case of deviating delivery schedules or the agility of production, which allows manufacturing several different products in the same production line. Velocity brings efficiency to the supply chain, which in this case means, for example, faster response to changes in the operating environment and quicker recovery from disruptions. Visibility determines the extent of access to the information that is most relevant to supply chain actors and their operations, and to what extent and how timely information is shared. Cooperation ties together the above components of resilience, as supply chain resilience extends to more than one actor and cooperation enables the components of resilience to be deployed across the supply chain. (Scholten & Schilder, 2015) The authors also show in their study that cooperative activities information sharing, cooperative communication and building shared knowledge increase visibility, which as a component of

resilience increases supply chain resilience. Information sharing and cooperative communication improve supply chain visibility by increasing the upstream and downstream transparency that is needed to detect and respond to disruptions. Commonly built information on processes and procedures further increases visibility while ensuring trust in the supply chain between parties.

In order to achieve the long-term cooperation relationship that is resistant to disruptions, companies must feel that the relationship is fair with mutual respect and organizational justice. Organizational justice enables companies' commitment to cooperation and deepening of trust. (Matopoulos, 2019) Through this, commitment and trust become central factors in the success of cooperation (Daghars, 2022; Wanke, 2022). With the commitment, companies share resources and capabilities that fuel the trust between the companies while strengthening the relationship (Wanke et al. 2022; Wang, 2014). Sharing information is indeed one of the most important expressions of cooperation and it helps to strengthen the relationship during a crisis through a better ability to detect and react to disturbances (Van der Walt, 2021; Scholten & Schilder, 2015; Botes, 2017). To share information, companies can utilize technological solutions such as tools for balancing supplier demand planning and buyer inventory management, as well as virtual meetings, which emerged as a necessary way to communicate during the pandemic (Brandon-Jones, 2014; Daghars 2022). In the light of the mentioned factors, it is clear that communication is a requirement for the successful cooperation of the buyer and the supplier and without it the cooperation cannot work out. Communication enables the parties to get closer and to increase transparency throughout the supply chain. Through active communication, information is transmitted quickly, reaction times to possible disturbances are shortened and it is possible to adapt joint actions to the activities of both companies. The importance of velocity is especially emphasized during disruptions when decisions and actions must be taken quickly in order to minimize the negative effects. (Scholten & Schilder, 2015; Krause & Ellram, 2014; Botes, 2017) This reflects the proactive nature of the cooperation that aim to minimizing risks when they occur through advance planning and actions. All factors are linked to each other which together form the whole of the cooperation. The close relationship between buyers and suppliers enables the proactive working approach due to trust and the close information sharing. (Grötch, 2013)

Should then a cooperative relationship form with all the suppliers? The answer is no. It is argued that cooperative relationship is economically reasonable only when rewards are higher than costs related for such a relationship. Also, when studying the characteristics of the business between the buyer and the supplier, interpretations can be made based on which factors influence the formation of a cooperative relationship. Cox et al. (2003) recognize four factors: salience of the spend to the buyer, asset specificity of spend, uncertainty of spend and buyer-supplier power relations. As described earlier, cooperation requires effort to succeed and it is clear that it takes company resources. Because of this, the buyer must feel that the supplier's product or service is important enough to their business, either financially or for operations, so that it makes sense to invest in cooperation and develop it further. Second factor refers to the nature of the object to be purchased. Some items require special effort in order to be useful and thus bring out different dependencies between the buyer and supplier relationship. For example, a so-called private label product that is manufactured separately by the supplier for only one grocery retail chain. Through that the buyer and the supplier are dependent on each other contributions and cooperation have conditions to deepen. Uncertainty of spend refers to factors that create threats to transaction. The idea is that both parties are in the same boat and thus this leads to closer cooperation to minimize the effects of disruptions. Both parties have the will to reduce the availability challenges caused by the pandemic or other disruption to ensure the smoothness of the flow of goods and the availability of goods to the end customer. The last factor refers to how the power is shared between the buyer and supplier. Information is one source of power, but utility and scarcity also determine how power is distributed. Utility determines how important the buyer's demand is to the supplier's business, so in other words the more significant the buyer's contribution to the supplier, the greater power it has. Scarcity determines how many alternative buyers there are for the supplier in the market, i.e. the harder it is to replace the buyer, the greater power the buyer has. (Cox et al. 2003)

As it has become clear, a cooperative relationship is a proactive activity that through close communication and contact strives to achieve added value in the relationship and ultimately a better end-customer experience. The activity itself includes various cooperative activities to reduce costs, improve the product, skills and capabilities. (Cox et al. 2003) The activities

can be divided into six sections: information exchange, operational linkage, legal bonds, cooperative norms and adaptations by supplier and buyers (Cannon & Perreault, 1999).

Sharing information improves the understanding of the actions of the other actor and their influence in joint actions. It improves trust and commitment in a relationship. It also provides operational benefits, for example for the operation of supply chains, by sharing different forecasts. The risk of sharing information is the opportunistic behavior of another actor. During a crisis, sharing information improves visibility and helps responding to the disruption caused by the crisis. A better understanding of the overall picture through up-to-date information gives time for actions which minimizes the impact of risks. Information sharing fuels trust and commitment, but it also works the other way around, where a long-term cooperative relationship with trust and commitment creates the conditions for information sharing. (Cannon & Perreault, 1999; Botes et al. 2017; Scholten & Schilder, 2015; Van der Walt, 2021)

Operational linkages mean the integration of buyer and supplier processes which enables a smooth flow of information, goods and services between operators. The possibilities in practice are extensive and they can be utilized in the various functions of companies. A typical operational link is different dispatch advice messages that are integrated connections between the buyer, supplier and other operators like transport companies. (Cannon & Perreault, 1999) During a crisis, the efficiency of information transfer brought by operational linkages improves connectivity and visibility between the buyer and supplier (Brandon-Jones et al 2014). Virtual meetings between actors and their relationship-strengthening effect also reflect the importance of operational linkages during the crisis (Daghars, et al. 2022).

Legal bonds are contracts that define the parties' obligations and roles in the relationship. They are helpful in dispute situations and in clarifying responsibilities. For example, delivery terms state in detail who is responsible if transport damage occurs, so legal bonds reduce the uncertainty of the operating environment. However, legal bonds can stiffen operations if the operating environment requires rapid changes to operating methods. (Cannon & Perreault, 1999)

Cooperative norms refer to the actors' expectations what a cooperative relationship give. It also refers to behavior by which the parties know that the other party is working towards the cooperative relationship. This can mean, for example longer lead times accepted by the buyer during the crisis which is an indication of flexibility to promote the cooperative relationship. (Cannon & Perreault, 1999)

Relationship-Specific Adaptations are relationship-specific investments to modify processes or products according to the needs of the other party. They are relationship-specific, therefore individual and reflect the parties' commitment and trust in the relationship. The benefit can be directed to one party only or to both in the form of a reduction in costs, an increase in income or an increase in dependence. (Cannon & Perreault, 1999) In a crisis, the expression of commitment and trust moves the collaborative relationship forward towards a common goal through shared resources and capabilities. In that case the crisis situation causes less negative effects. (Wanke et al. 2022)

4.2 Classification of cooperative relationships

Based on the findings presented above, when the buyer has high power and the supplier has low power, the buyer is the dominant party. When the power is the other way around, the supplier is the dominant party. Low power in both means independent companies and high power in both means interdependent. These influence the formation of cooperation in a way that independent relationships are unlikely to lead to cooperation or its deepening. When the supplier is dominant, the buyer is more likely to have interests in cooperation, but the supplier does not, so the relationship is unlikely to lead to cooperation or its deepening. However, when the buyer is dominant or the relationship is interdependent, it creates solid basis to cooperation or its deepening. (Cox et al. 2003) Based on the above scenarios, relationships can be divided according to Figure 4 into six different styles, depending on the balance of power between the buyer and the supplier. On the left side of the figure, there are arm's length types, i.e. transactional relationships where the buyer and supplier have little contact with each other and no cooperative activities. This is irrelevant for this thesis, as the work is focused on cooperative activities, but has been included in the figure to visualize the whole theory. On the right side of the picture is cooperative relationships, where relationships are long-term and there is extensive and close cooperation between the parties.

In cooperative adversarial relationships, the buyer or supplier has a dominant position of power. In these relationships, the dominant party receives most of the value created and also determines the price and quality standards. The weaker party acts as a non-adversarial way and accepts the dominant party's demands. However, the parties provide functional linkages and relationship specific adjustments. In a non-adversarial reciprocal cooperation relationship, the power between the parties is balanced and the parties are interdependent. In this case, the value created in the relationship is shared equally between the buyer and the supplier and the parties agree on prices and quality standards between themselves. The relationship is therefore characterized by transparency and commitment. (Cox 2004)

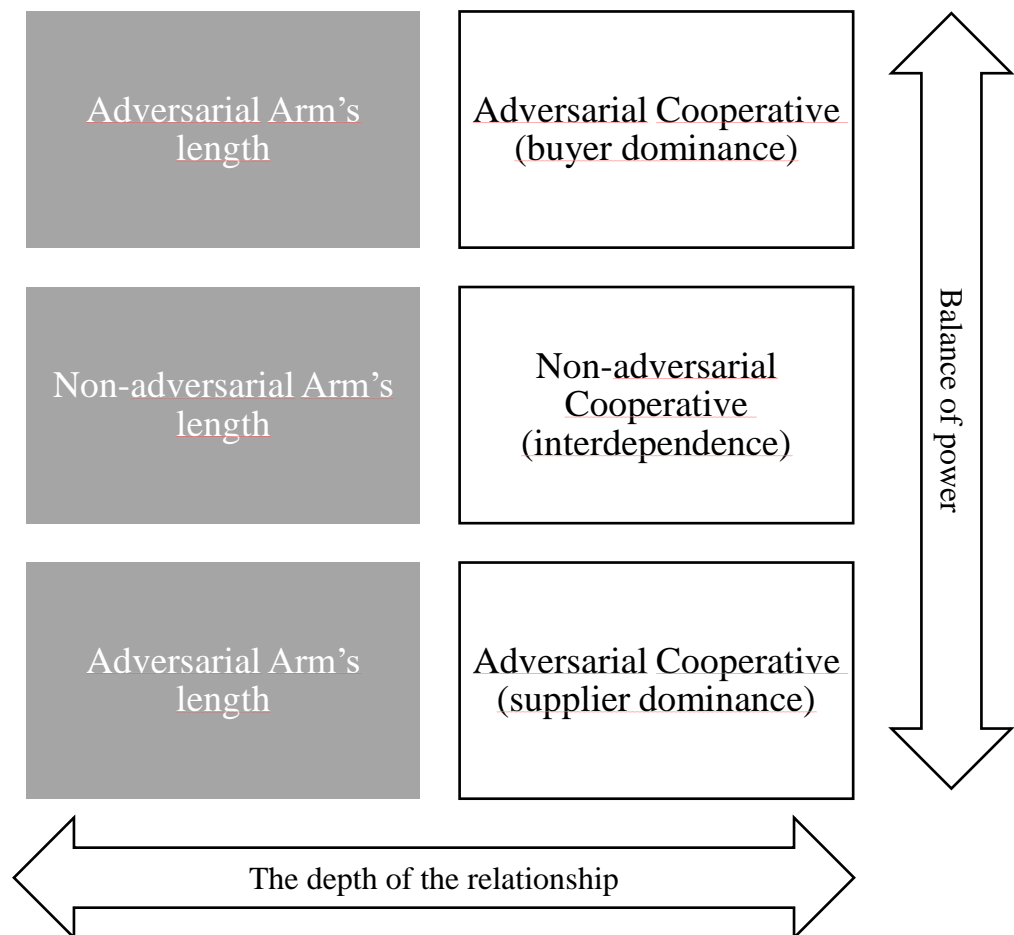


Figure 4. Buyer-Supplier relationship types (based on Cox et al. 2003).

The classification of the buyer-supplier relationship presented by Cox et al. (2003) and Cox (2004) is based on the power between the parties. Another alternative is to add relationalism to the relationship classification. Relationalism refers to behavior that maintains and improves relationships between buyer and supplier companies and reflects long-term

cooperative relationships. Tangpong et al. (2015) take this into account in their classification of eight relationship types: market/discrete relationship, captive-buyer/supplier-dominant relationship, captive-supplier/buyer-dominant relationship, strategic/bilateral partnership, supplier-led cooperation, buyer-led cooperation, competitive/win-lose partnership and free will/voluntary cooperation.

Market/discrete relationship has the transactional features of the arm's length relationship of Cox et al. (2003). There is little interdependence between the parties and the relationship is characterized by low relationalism. Products are typically standardized, demand is stable and it is possible to change partners at low cost. The relationship is therefore short-term, market-based and competitive (Tangpong et al. 2015). The chances of developing into a cooperative relationship are also low, as there are no incentives on both sides.

Single-party dominance is reflected in captive-buyer/supplier-dominant and captive-supplier/buyer-dominant relationships, where either the supplier or the buyer explicitly dominates the relationship. These relationship types are also characterized by a low degree of relationalism. The dominant party has something unique from a market perspective, such as a limited number of competitors, which is why the switching costs of the weaker party are low and the use of bargaining power is possible. The continuation of the relationship is based on the ability of the weaker party to meet the needs of the dominant party, in which case the relationship can be short or long term but not cooperative (Tangpong et al. 2015).

The power structure is similar in supplier-led and buyer-led cooperation as in single-party dominance, but the important difference is the relationalism between the parties. The relationship is typically long and cooperative, with the aim of achieving mutual benefits for both parties. The dependent party is in an interesting position since it adapts its actions according to the actor that leads the cooperation. For example, the lead partner has a market position, purchasing volume, unique expertise or capabilities that make other party dependent (Tangpong et al. 2015).

Rationally, the dependent party is in a vulnerable position, as the actor leading the cooperation has opportunistic opportunities to take advantage of its position, for example by changing supplier. However, relational factors in the relationship prevent this and the parties

have a desire to ensure optimal fit between the product being offered and the product being purchased (Tangpong et al. 2015). A buyer with significant market power has an interest in retaining a long-term supplier whose functions or components offered are tailored to the buyer and, as a result of a long-term cooperative relationship, the quality level can be relied upon. An interesting possible development is the development of captive-buyer/supplier-dominant or captive-supplier/buyer-dominant relationships into supplier-led or buyer-led cooperation. The weaker party has an interest in forming a deeper cooperative relationship because of dependency, but rationally the dominant party has no incentive to do so. In captive-buyer/supplier-dominant and captive-supplier/buyer-dominant relationships, the dominant party has the flexibility and agility through independence and the dominant party is free to choose the most appropriate partner. However, both parties can be expected to benefit if relational factors are used and the relationship is deepened into cooperation led by one party. On the other hand, investments in optimal fit and control of the other party engage the parties and reduce the flexibility of the dominant party.

In strategic/bilateral partnership both parties are dependent on each other due to the lack of alternative partners and thus the relationship has a high degree of relationalism. Both parties are committed to the relationship and they purposely develop it in order to achieve mutual benefits. The relationship is therefore a long-term cooperative relationship in which joint actions, bilateral planning and mutual adjustments are implemented. (Tangpong et al. 2015)

In competitive/win-lose partnership the strong interdependence of the parties is reflected, but it suffers from a lack of relational factors. In the absence of relational factors, the parties think their own interests and pursue their own goals. Therefore, the relationship is characterized by efforts to reduce dependence on the other party in order to give the actor power and control over the other party. The relationship thus has the potential to evolve into a captive-buyer/supplier-dominant or captive-supplier/buyer-dominant relationship. (Tangpong et al. 2015) Cox et al. (2003) see a dependent relationship as creating a solid basis for cooperation or its deepening. The view lacks consideration of relational factors, including only the balance of power between the parties. Tangpong et al. (2015) consider the relational factors of the relationship and due to the absence of factors, the authors consider the interdependent relationship as adversarial. In an interdependence relationship which involves relational inputs, the authors identify it as cooperative.

The last relationship type in Tangpong et al. (2015) is free will/voluntary cooperation, which is characterized by high relationalism and low dependence on the other party. The cooperative relationship is based on voluntarism and equality, where the parties voluntarily bring their own strengths to use in the relationship, not because of strategic necessity. A significant difference from a supplier-led or buyer-led cooperation is that free will/voluntary cooperation has equal partners, where leadership is shared and parties have freedom for their own activities. Due to independent operation, low dependence and relational factors, the risk of opportunistic behavior is low.

Cooperation is useful regardless of the situation between the buyer and the supplier but there are differences in the characteristics of the cooperation depending on whether we operate in a normal business environment or an environment that is under the influence of a crisis. The uncertainty brought by the crisis or other disruption to supply chains forces companies to look for ways to reduce or manage risk, and cooperation between buyers and suppliers is one option among others. Through this, the cooperation between the buyer and the supplier tends to deepen because capabilities and resources are sought from the partner to block the negative effects of crisis. In addition, because of the common goal, in this case minimizing the impact of the crisis, joint risk management functions increase during the crisis. (Bag et al. 2023; Mwesiumo et al. 2021) This not only means that existing cooperative relationships deepen but also relationships with not so close suppliers tend to get closer. The benefits of cooperation for the buyer are also considered in terms of crises and supply disruptions, as the supplier can determine the distribution of scarcity between different buyers based on existing relationships. (Bag et al. 2023)

The definition of cooperation between buyers and suppliers can include many different features and functions. It also can have different definitions, as it has already become apparent in this thesis. However, for the purposes of this thesis, cooperation is defined as an activity between buyers and suppliers to maintain or promote a business relationship in order to achieve their common and mutual objectives.

5. EMPIRICAL FINDINGS

In this empirical chapter, the research is covered, and which results are compared to the previously presented literature findings. The material is based on responses received from a thematic interview that is collected from a company that operates in the Finnish grocery retail industry and has suppliers around the world. In this chapter a research process is introduced and the findings from the questionnaire are presented and compared to the findings that were revealed in the literature review. The chapter continues with the presentation of the research methodology.

5.1 Research methodology and data collection

A qualitative research method is based on a social or human problem where data is collected in the natural environment of the participants. When analyzing data, conclusions and generalizations are made based on observations. A qualitative research report describes and interprets a problem where participants are present, and the researcher's reflexivity comes up. (Creswell, 2007) Subject area of the thesis gives the possibility to carry out the research also quantitatively, in which case the research would be based for example on the analysis of the most frequently occurring factors in buyer-supplier cooperation during a crisis. However, the survey questions allow respondents to answer through their own experiences and stories. This is crucial, as the experience of a crisis and its effects can be very subjective. With this, the answers are deeper, more versatile, and thus a more thorough final result is achieved. Because of these factors, a qualitative research method has been chosen as the research method of the thesis.

The data collection method is the thematic interview, which refers to an interview where the theme is known but the exact format and order of the questions is not known (Hirsjärvi et al. 2009, 208). Qualitative research and thematic interview are characterized by an emergent design, i.e. the structure is not organized precisely, so it can get sidetracked. This is also often desirable, as it gives the interviewee's own views more weight which is important in qualitative research. This also means that the qualitative research method and thematic interview is flexible, so the questions can change, or they can be modified during the interview situation. In addition to pre-planned questions, the interviewer can break away

from the plan and ask new questions depending on the interview situation. Based on these, the purpose of a qualitative interview is to get rich, detailed answers that reveal the interviewee's own experiences. (Bryman & Bell 2011b, 466-467 & Creswell, 2007) Bryman, A. & Bell, E. (2011) *Business Research Methods*. 3. p. New York, Oxford University Press.

The interview situation for this thesis was arranged face-to-face, where the interviewees were present at the same time. The purpose for that was to create a situation that is truly interactive, where views and experiences are supplemented, supported and challenged. This type of situation also encourages openness when the parties see each other sharing their experiences. Thus, the end result is richer outcomes that emphasize the subjective experiences of the interviewees. The interview lasted about an hour and was prepared with a set of main questions, which provided the framework for the interview and according to which the topics were proceed. As is characteristic of a themed interview, the interview progressed in a multidimensional manner and new questions about the topics emerged through the rich discussion.

5.2 Interviewees

When choosing the research group, the credibility of the respondents should be considered. Respondents must provide credible reasons for participating in the study. This is influenced, for example, by the respondents' work experience and position in the organization. (Bryman & Bell 2011a, 210) Considering this, two people were selected as respondents who can give credible answers due to their work experience, expertise and position. The decision to limit the number of interviewees to two was intentional, driven by the nature of the thematic interview that allows for a comprehensive understanding from a small number of participants, where depth and richness of the data are prioritized over quantity.

Interviewees 1 and 2 work in a Finnish grocery retail company under the title Replenishment Planner. Because of the title, the thesis will refer to planners rather than buyers. The interviewees have worked in these positions for about three years and in addition, both have experience in other operational positions in the supply chain at different companies. Figure 5 shows a simplified version of the supply chain of a grocery company, where the red dashed line indicates the location of the interviewees between the logistic center and the suppliers.

The most important tasks of Replenishment Planners include purchasing daily goods to a logistics center according to demand, managing deviations in the flow of goods in the supply chain, and close cooperation with suppliers, logistic center and store operations.

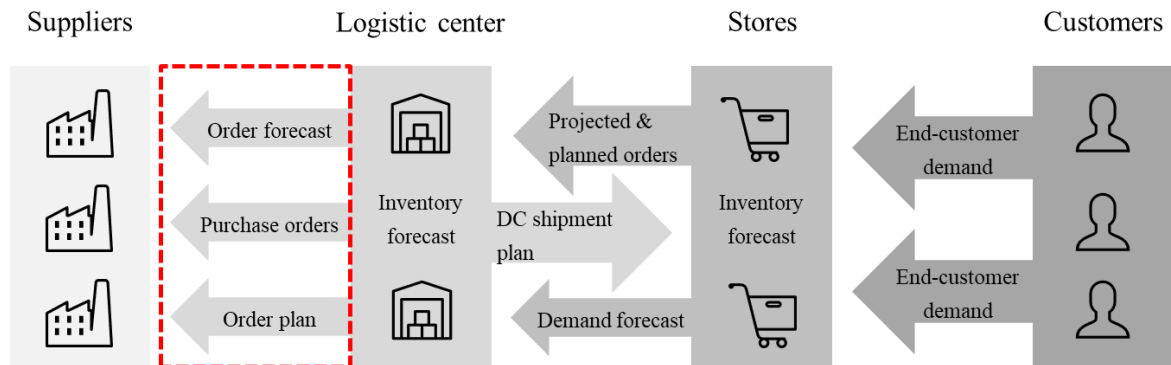


Figure 5. The possession of interviewees.

Both interviewees have domestic suppliers that are located in Finland and import suppliers' that are located other countries than Finland. However, the majority of interviewee 1's supplier portfolio are domestic suppliers and the majority of interviewee 2's portfolio are import suppliers. Therefore, with interviewee 1 the focus is on cooperation with domestic suppliers and with interviewee 2 on cooperation with foreign suppliers. This will allow the thesis to compare the views of domestic and foreign suppliers. Nevertheless, it is noteworthy that both interviewees have experience in buying domestically and buying imports, so the respondents can credibly answer in both areas.

5.3 Buyer Supplier Cooperation during crisis

The purpose of this section is to find out how COVID-19 pandemic affected the work of the interviewees and how the cooperation between planners and suppliers appeared for the interviewees before and during the crisis. The aim is also to identify differences between domestic and foreign suppliers. The first section therefore sets a certain baseline for the thesis. The first part thus sets a certain starting point for the thesis, which proceeds to the impact of the COVID-19 pandemic and further to identifying success and disturb factors of cooperation.

COVID-19 pandemic disrupted global supply chains and presented unprecedented challenges for planners and suppliers' businesses. According to the interviewees, the impact of COVID-19 pandemic was significant, as it caused unpredictable situations and disruptions for which there was no ready operating model. Interviewee 1 describes the situation as follow:

Interviewee 1:

“It just disrupted our operations. There were widespread disruptions in the availability of products due to factory shutdowns and transportation restrictions. Demand for some of our products dropped while demand for others surged unpredictably. We had also to adapt to remote work almost overnight.”

According to interviewees, cooperation with suppliers before the COVID-19 crisis was business-oriented and focused on issues that were relevant to the daily work, such as availability of products, order volumes, managing orders and shipments or current and upcoming campaigns. Cooperation was conducted via telephone calls and e-mails. According to interviewee 1, cooperation meetings with domestic suppliers took place on a regular basis and tended to be face-to-face. These meetings covered current issues, upcoming major events, identified successes and areas for development and reviewed the past period in terms of key figures. Specific separate cooperative projects were organized with suppliers when the situation required that. These projects related for example, to the launch of new products, establishing new delivery routes or supplier's production sites, preparations for holidays including planning for schedules and demand fluctuations or system related projects requiring specific actions to ensure keep operations smooth as possible. Communication on these was often through face-to-face meetings, e-mails, and telephone calls. Interviewee 2 describes that there was no particular focus on cooperation before the pandemic since cooperation occurred naturally with suppliers. According to the interviewee, there are relatively few changes in the planners' supplier portfolios, so there may be a long history of working together with some suppliers. Given this, it is understandable that cooperation has developed on its own without much separate effort.

According to interviewee 2, cooperation with foreign suppliers before the pandemic was mainly done through emails and phone calls. According to the interviewee, there were no

face-to-face meetings with foreign suppliers before the pandemic, but meetings were already held via Teams at that time. Interviewees agreed that the nature of cooperation was different between domestic and foreign suppliers. Relationships with domestic suppliers were perceived to be closer compared to foreign suppliers and dialogues were more frequent with domestic suppliers. According to interviewee 1, this is influenced by factors such as the shorter lead times with domestic suppliers and more frequent deliveries, which correlate positively with the number of contacts. The interviewee 2 adds that lead times with foreign suppliers vary from one week to several months, depending on the geographical location of the supplier. For example, delivery times for products from Sweden and Estonia are generally around a week, while those from East Asia are often closer to a year.

According to interviewees, the general functionality of the supplier also influences the amount of contact. By this they mean that if there is no word from either party, from the buyer or from the supplier, it is usually a sign that things are going well on their own. Delivery problems, delivery delays, incorrect deliveries and other problematic situations lead to a joint effort by the buyer and the supplier, which in turn increases the activity of the parties.

According to interviewee 1, the number of products coming from the supplier and the demand for products also affects the amount of contact. This is because if the supplier has only a few products that are in the buying company's assortment and sales for those products are low, planners tend to replenish a larger number of products at once. The interviewee adds that this reduces the frequency of replenishments and reduces the cooperation activities between planners and suppliers.

According to interviewees, the importance of cooperation was highlighted during the crisis and more emphasis was placed on supplier relationships. The interviewees' company stressed the importance of communication with suppliers in the hope that suppliers would also communicate their problems and potential bottlenecks openly and as early as possible to planners. Increased communication and information sharing was aimed at responding to up-to-date information regarding supply disruptions, production challenges, demand fluctuations and order statuses. In line with the importance of communication, it was one of

the factors that emerged most frequently in the literature review, described for example by Scholten & Schilder (2015).

Looking at the first effects of the pandemic in terms of timing, interviewee 1 said that there was no clear difference between foreign and domestic suppliers thus the effects started to appear at roughly the same time for suppliers. However, interviewee 2 adds that more challenges were reported by foreign suppliers than by domestic suppliers. Still, interviewees could not identify whether there was a quantitative difference between domestic and foreign suppliers as the pandemic progressed and more and more suppliers around the world reported about supply challenges. When asked about the interviewees' attitudes towards suppliers' reports of problems, the response was as follows:

Interviewee 2:

"It soon became clear that the problems were not limited to individual cases but would affect a wider group of suppliers. The level of requirements toward suppliers automatically dropped because it was clear that (suppliers') influence was limited toward disruptions."

Later, the interviewees' companies also reacted to this and the level of the performance metric, a service level required from suppliers was lowered to reflect the current business environment. The service level measures the ratio of products ordered to products delivered.

Interviewees saw that foreign suppliers were particularly disturbed by bottlenecks caused by freight transport and by the challenges that suppliers face in producing products. Domestic suppliers did not avoid this problem either, although they were less affected according to the interviewees. The problems were reflected through supplier contacts related for example to delays in the delivery of raw materials and packaging materials. This kind of disruptions prevented supplier's production operate at the required level. Interviewee 1 commented as follows:

Interviewee 1:

"For one domestic supplier, production and deliveries of several products came to a complete halt during the peak season due to a supply disruption in the packaging material used for the products."

The supplier's well-established packaging materials supplier's own production was down due to delays in the supply of raw materials for packaging materials. This illustrates how disruptions move through the supply chain from one tier to the next tier.

5.3.1 Promoting factors

When looking at the factors that promote cooperation, one activity stands out particularly strongly among the interviewees: communication. Interviewee 1 explains that, even without crisis, the nature of the work involves active communication with suppliers:

Interviewee 1:

"If buying or replenishment activities takes up one half of the working day, the other half is spent dealing things with suppliers."

Interviewee 2 adds that the importance of communication only increased during the pandemic and the increase in communication was natural. The interview also revealed that, in general, so-called normal exceptions such as late orders, quantity changes or campaigns always require extra communication with the supplier. The most significant change during the pandemic was the number of disruptions increased and, for example information on the recovery of the availability situation was unclear, i.e. general ignorance increased.

The interview revealed that it is important to be up to date with the current situation and that they need to be informed as early as possible about any disruptions. In this way, corrective and preventive measures are more likely to have an impact. Interviewees reported that the importance of up-to-date information was stressed by a letter to suppliers, which emphasized

communication on the potential impact of the pandemic on the supplier's business and thus on the purchasing company's operations.

Interviewee 1 describes differences in the way suppliers operate, which can be used to define the level of cooperation. The emphasis is on the flow of information and how information is shared. Suppliers with a high level of cooperation are proactive, precise, self-imposed and active communicators. According to the interviewee, all these characteristics make the planner's work easier and faster. For example, when a supplier becomes aware of an impending availability problem for a product, he informs the planner well in advance of the impending challenge before the problem has become a reality. The supplier estimates how long the challenge will continue and informs the planner of corrective or preventive options. These may include providing a replacement product for a limited period of time or purchasing the supplier's remaining inventory to cover the time beyond the availability challenge. During an availability challenge, the supplier will provide proactive and regular updates on the situation as it develops. The supplier's proactivity was highlighted during the pandemic, when disruption was widespread, and no clear visibility of the future was available. Proactive suppliers were active in communicating about products at risk of supply disruption and offering alternative solutions to minimize the impact of disruption.

The interview also highlighted the importance of the content of the messages, as the product codes used must be correct, the quantities must be consistent and the information itself must be clearly visible. Interviewee 2 specifies by saying that they and suppliers have their own product codes, which have limited usability in each other's systems. Therefore, the use of GTINs is more practical for both parties. Moreover, when it comes to quantities, suppliers prefer to use store units, while the interviewees' company uses pieces. According to interviewee 1, the importance of commonality is highlighted in the delivery issue forms used by suppliers to report availability problems. The form is prescriptive and simple in order to provide planners necessary information and to make it as easy as possible for the supplier to fill in. According to interviewee 1, the use of the form and the correct way of filling it in became more important during the pandemic, when as an increasing number of suppliers experienced disruptions.

Interviewees have a clear view of which suppliers achieve a good level of cooperation and which do not. Interviewees describe that there are certain expectations of suppliers with a good level of cooperation and that it would be exceptional if their performance in meeting the good cooperation standard would change to worse. Interviewee 1 describes his actions with suppliers during the pandemic as follows:

Interviewee 1:

"When things seemed to be in a mess because of the COVID, these so-called good suppliers were a great help in the day-to-day operations. They were actively communicating so I had up-to-date information. I've worked with many of them for a long time, so I knew they were doing a good job."

The comment highlights trust and long-term cooperation. The literature review also identified trust as a factor that contributes to performance in times of crisis. Van der Walt et al. (2021) find that trust increases the sharing of risk information during a disruption and as noted earlier, information sharing itself is an important factor in promoting cooperation. These findings suggest that trust is one of the basic building blocks of cooperation, on which resilience to a crisis is built, and without trust the cooperative relationship does not exist. Without trust, the parties may find it difficult to engage in the relationship and information sharing may be limited. Information sharing can be seen as a threat that can be unfairly exploited by the other party. A crisis situation may also reveal the vulnerability of the company, which in the absence of trust, may not dare to disclose to the other party, even though openness could be mutually beneficial. As it can imagine, trust does not happen overnight but requires long-term work on both sides of the relationship. This is also reflected in the interviewees' responses, where a long-term relationship correlates positively with the level of cooperation. In uncertain times, long-lasting relational relationships should therefore be fostered for the expression of trust and commitment, which have positive effects on the level of cooperation (Bag et al. 2023 & Wanke et al. 2022).

According to Botes et al. (2017), information sharing increases flexibility through timely and high-quality data. Interviewees also identified supplier's flexibility as one of the factors that promoted cooperation and helped act during the pandemic. However, they assessed that

the exceptional situation of the pandemic created conditions for flexibility and cooperation. During the pandemic, there were many sudden changes, for example in the supply and availability of products, which meant that planners and suppliers had to be flexible simply because of the circumstances in order to cope with these exceptional circumstances. Therefore, solutions that deviated from the normal were explored together with suppliers. Solutions such as changes in order-delivery schedules, additional orders that deviated from the normal order-delivery schedule and higher than normal order volumes to ensure availability were ways to ensure availability and integrity of the flow of goods. Interviewee 1 also recalls that flexibility was also in the interest of suppliers, as it is also in their interest to sell and deliver products.

Interviewee 1 highlighted a feature that was not found in the literature. According to the interviewee, the ability of the supplier to question the actions of the planner, i.e. the so-called critical thinking, promotes cooperation between the parties. During the pandemic, the ability of the supplier to question the planner's actions helped to uncover anomalies that affected the flow of goods. For example, the planner's decision not to order products could be questioned by the supplier, citing the need to ensure availability during uncertain times or the stock balance report. Sometimes the questioning of the supplier led to the identification of an incorrect decision by the planner or errors in the data, such as under-ordering due to human error. This therefore helped the parties to move forward. During the pandemic, the importance of this was underlined by the fact that the desk was full of exceptional cases, for example related to exceptional stock levels of products due to availability challenges. Challenging the planner's actions is an expression of the openness of the relationship, which is also supported by the shared product stock balance report. In the literature, Van der Walt et al. (2021) presented openness as increasing the sharing of information between firms during a disruption, which was also reflected in the interviewees' actions as described above. According to Grötch et al. (2013), openness is one factor that promotes cooperation, which stems from relational governance. The mutual trust and commitment enabled by relational governance and the open communication they created was enabling the planner's actions to be challenged by the supplier.

5.3.2 Disturbing factors

When interviewed about the factors that disturbed the cooperation between planners and suppliers during the pandemic, the most prominent were those related to communication and information sharing. In the literature, Daghars et al. (2022) discussed these partly, as the authors argue that the large size of the purchasing company slows down the internal flow of information, which weakens communication to the supplier and thus undermines cooperation. On the similar topic, but from a different perspective, Van der Walt et al. (2021) linked information sharing problems to opportunistic behavior and information sharing with outsiders. According to Wissuwa et al. (2022), delays in sharing information related to incidents and lack of information related to incidents undermine the cooperative relationship.

According to interviewees, the reactivity of suppliers in sharing information was one of the main obstacles in cooperation. This refers to information sharing that arrives too late to the planner. For example, information about missing products from orders, information about delayed deliveries or, in the worst case, information that the whole order will not be delivered, arrived too late, preventing the planner from taking corrective action to minimize negative impacts. In the worst cases, the information is only shared by the supplier on the day of delivery. In some cases, the supplier did not share the information at all, but the planner himself, as an active player, inquired about late orders or products. In these cases, it is already too late to take corrective action and stock balances are likely to go to zero. During the pandemic, the impact of supplier communication and information sharing was highlighted as the operating environment was also affected by many other disruptive factors. This is supported by the views of Wissuwa et al. (2022).

Interviewee 2 also shared a situation where a supplier reported incomplete information related to product availability challenges. The supplier was not able to estimate the length of the supply disruption for the products with availability problems at all, which made it impossible for the planner to estimate the severity of the disruption, the effectiveness of corrective measures or to forecast the demand for the products. The planner says that a conservative or even rough estimate of the length of the supply disruption helps to predict future periods and improve visibility. This also helps the supplier and therefore the cooperation, as the purchase forecasts from the planner and therefore replenishment orders

are consistent and aligned with each other, which helps the supplier to make its own forecasts and plan production. During the pandemic, this type of activity became much more common. Suppliers lost visibility of their own suppliers and supply chains and were unable to estimate the length of their supply disruptions. Some suppliers gave an estimate of the date when products would be available for ordering again, but as the day approached, the supplier moved the date forward. In the worst cases, this went on for several weeks. This caused frustration among planners and distrust of the supplier. The extended delivery delays also led to the complete removal of products from the assortment, which was maintained as long as the supplier was able to commit to stable deliveries.

According to interviewees, there were more challenges in cooperation with foreign suppliers than with domestic suppliers. The effects of the pandemic hit many other countries harder than Finland, and this was also reflected in the suppliers. Many foreign suppliers' workers were sent home, and factories were closed down completely. As a result, no products were available at all, or the planners could not contact their contact persons at all, and the flow of information came to a complete standstill. Some of the suppliers had no visibility into the future, for example of available staff and therefore future production, which of course also made the work of the planners more difficult. The challenges of freight transport also played their part. COVID-19 shutdowns at ports, container shortages and problems with shipping schedules, combined with the truck logistics required to move goods between warehouses and ports and stressed the cooperation between planner and supplier. Agreeing on schedules and practicalities for the manufacture and delivery of products were seen as challenges by the interviewees in an exceptional situation. These are supported by the literature of Van Der Walt et al. (2021), who argue that a disruption or crisis itself can threaten the cooperative relationship even if the parties take mitigation measures.

Interviewee 1 mentioned about a supplier and their system project that wrecked cooperation during the pandemic. Before the project, cooperation was smoothly. Regular cooperative meetings, open two-way communication and accurate and up-to-date information sharing were the characteristics of the supplier. As a result of the system project, the information provided by the supplier was incorrect or full of gaps. There was also less information sharing and general communication from the supplier, which led to a weakening of the conditions for cooperation with the supplier. At the same time, the supplier suffered from an

explosion in the sales of its products and major delivery challenges due to production and freight problems. The interviewee's trust in the supplier weakened because of these events and trust was replaced by a critical attitude towards the information provided by the supplier, leading to a reduced level of cooperation. This is in line with Wang et al. (2014) and Van Der Walt et al. (2021), who argue that weakened trust during a crisis leads to a weakening of the relationship. With inaccurate information and supply problems, the interviewee's main job of ensuring availability became impossible.

6. DISCUSSION AND CONCLUSIONS

This final chapter will sum up the results of the empirical research and further research opportunities are presented. The aim of this thesis was to identify promoting and disturbing factors of cooperation between a company in the grocery retail industry and its suppliers during the COVID-19 pandemic. Through the factors identified, the aim is to understand which factors drive the dynamics of buyer-supplier cooperation during a global crisis by identifying factors that the buyer company should foster and reduce. The sub-questions of the thesis are discussed first and the main research question of the thesis last.

6.1 Research Questions

The first sub research question was "*What factors promote cooperation during a global crisis?*". Based on the previous literature and interviews, communication and information sharing are seen as the most important factors that improve cooperation during a crisis. The importance of communication and information sharing evolve from the nature of the industry that is called conveniently Fast-Moving Consumer Goods (FMCG). The nature of grocery retail sector or FMCG is fast paced, with short lead times, high supplier and product volumes, products have short shelf-lives and demand face high fluctuations on a daily and weekly basis. As a result, situations such as changes in orders and deliveries require a rapid response. These factors mean that the buyer and supplier need to be kept up to date with the current situation and to enable this, there needs to be active communication and information sharing between them. The importance of these were highlighted during the crisis in interviewee's company when the pandemic spread risk and uncertainty along the supply chain.

The changes in the market environment caused by the pandemic, the increased number of exceptions and the need for parties to work through changing situations and exceptions meant an increased need for information exchange, which was reflected in an increase in communication and information sharing. This is made easier if there has already been a two-way communication between the parties, with active information sharing. In this case, the ways and practices of communication are familiar, and resources are not spent on getting to know each other or learning new practices. This was shown in the interviews, where it was

mentioned that communication and information sharing between the buyer and suppliers already existed before the pandemic. Existing practices contributed operations during the crisis and continued to operate despite the increasing number of problems in the operating environment.

The existence of the ways of communicating and sharing information does not mean that they were default values in the relationship. Their existence communicates trust, commitment and openness between the parties, which require persistence to develop. They are therefore characteristic of long-term relational relationships. This was also highlighted in the literature for example by Bag et al. (2023) and Wanke et al. (2022) who argued for long-term relational relationships. In the interview results, long-term relationships emerged indirectly, where the interviewee stated that long-term suppliers were a great help during the crisis and that trust in their work was high. Taking this into account, it is credible that the cooperation between buyer and supplier is the result of a long-term joint effort. The parties have come to know each other, to know each other's know-how, each other's standards and thus the activity has developed into a good cooperation where open communication, trust and information sharing are present. This is also supported by the finding that communication and information sharing between buyer and supplier already existed, i.e. the characteristics of cooperation existed before the pandemic.

As shown above, the nature and characteristics of the industry affect the communication and information sharing between the parties. Bearing this in mind, the interviews revealed some rather unsurprising factors that contributed cooperation. Interviewees appreciated the supplier's initiative, punctuality, anticipation, up-to-date information and general activity in communication and information sharing, which drove the cooperation forward and helped in working in the middle of the pandemic. When considering the characteristics of good communication and information sharing, each of the above factors can be counted. In addition, given the features of the nature of the industry outlined earlier, the findings are presumptive. To survive in a fast-paced environment, actors must be able to act in accordance with the characteristics valued by the interviewees. On the other hand, the findings on the use of the delivery issue form were surprising. Considering the prevailed circumstances during a pandemic, the benefits of correctly informing about supply disruptions are understandable. The significant increase in the number of disruptions and

challenges during the pandemic meant an increase in workload for planners, in which case the standardized handling of disruptions speeds up the process and frees up time for other value-added tasks. What is surprising is that the results show that correct information provision is not a default for all suppliers and practices are not standardized, even though these seem to have a significant impact on the smoothness of operations. It remains to be open whether training on the subject has been provided to suppliers and whether the importance of informing correctly has been emphasized enough to them. Sanctions for not using practices can also be one of the opportunities for influence, which would help to standardize the handling of incidents.

When asked about the differences in cooperation between domestic and foreign suppliers, it came up that relations with domestic suppliers were perceived to be closer. An interesting finding was that the shorter lead time of domestic suppliers is one of the factors influencing the amount of contact. A shorter lead time means a higher frequency of deliveries and therefore closer communication. Related to the same topic, the number of products and demand were also seen to have an impact on the amount of contact. Suppliers with only a few products or only low-selling products in their assortment receive orders less often from the company of the interviewees, which negatively affects the number of contacts and communication. Thinking about it the other way around, the situation is the opposite for suppliers with wide assortment selection and/or high-selling products. Although the interview does not directly reveal that the number of products and lead time had a positive effect on the level of cooperation during the pandemic, it is reasonable to assume so. Closer contact can be expected to have developed the features of cooperation outlined previously and thus the relationship between the parties in general. This also makes it easier to carry out various cooperation activities such as marketing campaigns and joint development projects with familiar actors. On the other hand, it should also be noted that suppliers with shorter lead times and large product ranges are likely to have caused significantly more problems for the interviewees' firms during the pandemic, as product availability problems can be expected to be positively correlated with the number of products. In such cases, challenges and problems can create tensions between the parties and thus undermine the level of cooperation. However, this is partially rejected in the interview, as it was found that foreign suppliers faced more challenges than domestic suppliers, which also had effects on communication. In the other hand, this can be explained by the frequency of deliveries. The

longer time between deliveries from foreign suppliers emphasizes the importance of individual deliveries, as the next delivery may not arrive for months. This makes corrective actions such as additional refill orders or delivering replacement products ineffective because due to the long lead time, it is not possible to make quick corrective movements.

Cultural factors did not come up as factors that promote or disturb cooperation, but in this context they should also be considered. Those operating in the same geographical area share the same local market, language, circumstances and current issues, which contribute mutual understanding and feeling of togetherness and thus create the conditions for functional cooperation. Finland's relatively small size and the oligopolistic competitive situation in the grocery retail industry also contribute to the fact that the market environment is close and close relationships are maintained between central distributors and domestic suppliers. Another thing to consider is the preference of suppliers. Both of Finland's largest grocery groups have a website dedicated to suppliers, which states that companies treat suppliers equally. How does this work in practice if the number of products and lead time affect the amount of contact and therefore, presumably, also the cooperation activities and the level of cooperation.

As discussed earlier in this thesis, the spread of the pandemic, the exceptional circumstances and through this the adoption of new practices required exceptional adaptability and flexibility. The results of the interview showed that the circumstances created the conditions for flexibility, which encouraged the parties to cooperation. The pandemic acted as a so-called push factor that forced the parties to flexible solutions. In this case, flexibility reflects the ability of the parties to adapt to the changed operating environment. This can be considered through a SWOT analysis, where the pandemic acts as an external threat. As the pandemic was an external factor, the parties could not control it themselves, in which case the correct questions have been how the company can use its own strengths to minimize the effects of the pandemic and how to minimize the company's weaknesses so that the effects of the threat can be prevented or reduced. Adaptation and flexibility that appeared in the interviewees' company for example in the form of changes in order-delivery schedule are solutions to respond to the changed operating environment. It also answers the first question, where an agile and flexible supply chain or a diverse logistics network were strengths that could be leveraged to minimize the impact of the pandemic. Leveraging strengths and

adapting to the environment also occurred more widely in the grocery retail industry, as companies found ways to take advantage of change and turn it to their advantage. One big and visible change was for example, the explosive growth of online grocery and food shopping, which was accelerated by the pandemic's movement restrictions and contact avoidance. On the suppliers' side, there was a reaction to changes in consumers' spending habits. The popularity of home cooking grew, and it emerged various trends, such as pizza making. A wide range of pizza accessories became available, which was not seen to the same extent in normal grocery stores before. Another example is the expansion of airlines into the grocery business. Airline company started delivering food portions familiar from flights to grocery stores while normal passenger traffic was practically at a standstill. This shows how suppliers knew how to take advantage of the change and did their best to react and adapt to the changed business environment. Adaptability and adaptability were also demonstrated by the transformation of breweries into hand sanitizer suppliers, which expanded the companies into a completely new product group. These are perfect examples of the fact that it is always worth trying and finding new opportunities, even if you have to go through adversity.

The second sub research question was "*What factors disturb cooperation during a global crisis?*". Looking at the results of the interviews, it is clear that the opposite factors from those that promote cooperation were disturbing cooperation. The interview revealed problems, particularly in relation to information coming from the supplier, which had a negative impact on the level of cooperation between the buyer and the supplier. The problems focused on the slowness of information sharing, the inaccuracy of information and the lack of information. The problems highlight previously mentioned industrial requirements for the flow of information. Cycles and lead times are often short, and decisions are taken quickly, requiring up-to-date information to support them in a timely manner. Failure to do so leads to non-validated decisions and actions which can result financial losses. The grocery sector is characterized by minimum safety stocks, meaning that for many products it is vital to have replenishment orders in line with the planned order-delivery rhythm. This is known as MRP planning or planning cycle. When disruptions occur in a cycle, for example a product or a whole order is not delivered to the logistic center, there is a risk of stockout. Stores also have their own stocks, but if it is a long lead time product and the supplier has not shared the information, it is impossible for the planner to react to the disruption. The interviews also revealed problems in estimating and sharing information on

availability disruptions. This may be due to wider production problems, whereby the supply disruption is prolonged to the point where the product is out of stock in the logistic center and in the stores. This can also lead to reflective effects such as customer dissatisfaction or a shift in demand to a substitute product, resulting in an unexpected increase in sales, putting pressure on the supply chain for that specific product. It is therefore obvious that problems in information sharing weaken the level of cooperation, whether it is a question of operations during a crisis or a normal operating environment.

The interview also revealed the problems of cooperation caused by the supplier's system project, where previously exemplary supplier changed radically as a result of the project. This refers to a failed or challenging system implementation, which increased the supplier's internal complexity. The same factor was also identified by Wissuwa et al. (2022), who found that supplier complexity increases the disruption experienced by the buyer. In the interviewee's case, incorrect information provided by the supplier and supplier's delivery challenges at the same time led to a lack of trust and decrease in the level of cooperation. It was not clear from the interview how the supplier communicated the problems, but the reduction in information sharing and general communication mentioned in the interview indicates that it was not happening at a sufficient level. The importance of up-to-date information has also been discussed in this thesis, so even if the news is bad, it is important to keep the other party in a cooperative relationship informed about the situation. Decrease in information sharing also signals the supplier's lack of confidence in their own company's operations. The data extracted from a new system may be so corrupt that the supplier has realized this and therefore has not shared the information with the interviewee. The background information on the supplier's project is not available, but the timing of the implementation was not convenient. During the pandemic, a switch to remote working was made at short notice, which may have a significant impact on the success of implementation project. For example, there may have been gaps in the remote working mode for system validation, user acceptance testing or end-user training. Especially as the practicalities and culture of remote working were still unknown for the most people in the first half of the pandemic.

Previous sub research questions answers provide an answer to the main research question of this thesis, which is "*What factors drive the dynamics of buyer-supplier cooperation during*

a global crisis?". The purpose of this question is to reveal the most significant drivers that emerged in sub research question responses. The results suggest that communication and information sharing are key factors in determining the dynamics of buyer-supplier relations during a global crisis. When these factors are carried out in accordance with the cooperation relationship, i.e. when a supplier actively, proactively and spontaneously shares accurate and up-to-date information, these promote cooperation and should be nurtured. When carried out in a way that is not in line with the cooperation relationship, i.e. when the sharing of information is slow, inaccurate and incomplete, they disturb cooperation and should therefore be avoided. However, this needs to be considered in more depth by looking at the matters behind the cooperative relationship.

Looking at the literature related to the subject and examining what emerged in the interview, it becomes clear that the field of cooperation consists of factors and activities that are all directly or indirectly interconnected, whether it is the operation of a crisis time or a normal market environment. The factors create the possibility for cooperative activities to take place, i.e. they act as the building blocks of cooperation. When thinking about these factors and activities, it can be seen that they feed off each other and they are strongly interlinked. This answers the main research question of this thesis, that the dynamics of cooperation between buyer and supplier during a global crisis are driven by factors and activities. The essential factors that should be promoted are trust, long-term relationship and commitment between the parties. It is impossible to identify a single enabler of cooperation, as none of these factors work alone and any of them may be the product of another factor. However, a long-term relationship is in a key position, as it requires trust and commitment from the parties to be established. At the same time a long-term relationship enables the creation of trust and is an indication of commitment. On the other hand, a long-term relationship can exist even if there is no trust and commitment between the parties. It therefore also needs to be supported by activities in order to establish a cooperative relationship.

The literature and empirical evidence suggest that communication and information sharing are among the activities that promote cooperation during a crisis. These activities reflect behaviors that are consistent with a cooperative relationship and contribute to functioning during a crisis. It should be noted that these activities complement each other and without one activity, the other cannot exist. In some cases, they can also be used as synonyms for

each other. Information sharing cannot exist without communication. Communication can occur, for example, in the way we communicate. In writing through e-mails or verbally through a virtual call are examples of ways of communicating through which information sharing occurs. The form of communication can be considered whether it is formal or informal. In sharing information, it can be taken into account how sensitive information is shared or whether the information shared is only superficial. In a long-term cooperative relationship where there is deep trust between the parties, communication can take an informal form, where critical information is actively shared between the parties. Sharing critical sensitive information is not self-evident as it enables for opportunistic behavior, which was also identified in the literature as one of the factors disturbing cooperation. However, the trust built through a long-term relationship with the other party creates openness, which encourages open communication and information sharing. As can be seen here, factors and activities are linked to each other, which together enable a cooperative relationship.

As already stated earlier in this thesis, the interviewees' company operates as a buyer in an oligopolistic grocery industry in Finland, where there are many different players on the supplier side and only a few big players on the buyer side. Combining this fact with what emerged in the empirical section, the following types of cooperative relationship can be identified for the interviewees' company. Of the types of cooperation previously presented in the theory section, Cox et al. (2003) adversarial cooperative relationship (buyer dominance) and Tangpong et al. (2015) captive-supplier/buyer-dominant and buyer-led cooperation are relationship types that can be connected to the company of the interviewees. What they all have in common is that they are dominant relationships by the buyer, based on the greater power of the buyer. In the case of the interviewees company, the high market power is due to the oligopolistic market and the high relative purchasing volume, which is significant for the business of the supplier firms. The supplier companies' business can only and exclusively be based on providing products to the Finnish grocery sector, in which case there are at most only a few sources of turnover. The scarcity of potential buyers means that there are no alternative buyers for the suppliers and there are several possible suppliers for buyers, thus increasing the market power of the buying side. The view of the buyer company's dominance is supported by the empirical section, which highlights the measures

taken by the suppliers to promote cooperation and pays less attention to the buyer company's efforts to promote the cooperation.

However, based on the results of the interview, there is relationalism between interviewees' company and suppliers, and therefore the adversarial cooperative relationship can be dropped as this relationship type takes into account only the power balance of the parties. The captive-supplier/buyer-dominant relationship also lacks relationalism and is therefore not suitable for a buyer company. In the captive-supplier/buyer-dominant relationship, the supplier is economically very dependent on the buyer and the buyer seeks to benefit from its dominant power at the expense of the supplier (Tangpong et al. 2015). It is easy to understand that the interviewees' company is trying to prevent this kind of relationship from happening, as Finnish Competition and Consumer Authority would intervene in the unfair use of market power by a dominant company. An interesting perspective would be to hear the suppliers' views on whether they feel they are in this kind of relationship. The elements of relationalism that emerged in the interview indicate that both parties are making contributions to the relationship. For example, cooperative meetings held with suppliers, where successes and areas for improvement were discussed, i.e. actions that move the parties' own activities and the relationship between them forward, are an expression of relationalism. They are also opportunities to maintain an existing relationship. Also, communication and information sharing played an important role in promoting cooperation and reflect the presence of relationalism between the parties. The interviewees' company being a major player in the market and the occurrences of relationalism indicate a buyer-led cooperative relationship between the company and its suppliers. Given the existing imbalance of market power, buyer-led cooperation is the most favorable cooperation model for the current market environment. Despite the imbalance of power, it is in the interest of both parties to seek mutual benefits and thus the relationships are long-term and reliable in nature. Theory also supports this, as Kumar (2005) argues that the market situation drives buyers and suppliers into a cooperative relationship, with a mutual desire to continue doing business with each other. According to Kumar (2005), this is explained by the trust and commitment between actors, i.e. relational factors.

Taking into account the characteristics and constraints of the Finnish grocery industry and the potential opportunities, the suppliers of the interviewees company could be considered

to be better off pursuing a strategic/bilateral partnership, where both parties are highly interdependent and the parties aim for a win-win situation. This would most likely mean lower profits for the buyer and higher profits for the supplier when the market power is balanced. However, due to the current imbalance of power in the market, this is an unlikely scenario in which the buyer would not have an interest due to the reduction of profits. As kind of impression of strategic/bilateral partnership in the current market is so-called private label suppliers, which deliver grocery retail chains own brand products, whereby a buyer-specific product is only delivered to one specific buyer. However, there is no uniqueness in grocery products, the same products can be found from several different suppliers and the same suppliers may deliver the same private label product to different grocery retail chain under the brand of that grocery retail chain. The lack of uniqueness also makes it easy to change suppliers, as there are several suppliers of the same product on the market. Generalizing it can be said that the specific investments in customized products for the buyer are limited to buyer-specific packaging graphics.

Considering the material in the thesis, the difference between the literature and the interview can be seen. The issues mentioned in the literature focus on factors such as trust, commitment and a long-term relationship, i.e. things that enable a cooperative relationship. However, in the interview the emphasis was on behavior or activity, with a primary focus on information sharing. This differentiation is inherent thus interviewees work in operational roles, so they emphasize a more practical outlook. On the other hand, the literature used in this thesis is more theoretical and generic, so it focused more on the broader entities that underlie behaviors. The interviewees' cooperation with suppliers is limited to operational matters, so the actual strategic cooperation at the executive level is outside the scope of this thesis. Because of this, the results are limited in terms of the overall picture. It is also noteworthy that there is literature on the cooperation between buyer and supplier but a small number material available on the crisis period. There have been no global, world-shaking crises, so the lack of material can be explained by this. An interesting comparison could include crises related to the global economic crisis or the impact of war.

6.2 Further Research Opportunities

This thesis is limited to the cooperation between buyer and supplier during a global crisis only from the perspective of the buyer, so expanding further research would be necessary to include the supplier's perspective. There are certainly differences of opinion between the parties, so this would provide an interesting point of comparison. Now that more time has passed since the pandemic, there is a wider range of statistics and studies available on how the pandemic affected companies' business and business relationships. Using this timely data can provide deeper answers around this theme. Finally, an interesting area for further research arises from the factors and activities of cooperation. How do the factors of cooperation lead to cooperative activities and behaviors. For example, is trust more important factor than commitment that leads to more open information sharing or is it perhaps relationship-specific which is the most important factor between parties, enabling and promoting cooperation during a global crisis.

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APPENDICES

Appendix 1. Interview questions

- 1) Tell your general information: your role in the company, tasks, previous experience, etc.

- 2) How would you describe your engagement with suppliers before the COVID-19 pandemic?
What kind of cooperation activities did you have with suppliers?
What were the differences between domestic and foreign suppliers?

- 3) What factors influence cooperation with suppliers?

- 4) What impact did the COVID-19 pandemic have on your engagement with suppliers?
What were the differences in impact between domestic and foreign suppliers?

- 5) What factors promote cooperation with suppliers?
How did COVID-19 affected to the factors that promote cooperation?
What kind of cooperative activities with suppliers took place during the COVID-19 pandemic?

- 6) What factors disturb cooperation with suppliers?
How did COVID-19 affected to the factors that disturb cooperation?