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Supplier Relationship Management: Building Trust and Collaboration in the Global Supply Chain

[Subject]

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ABSTRACT:
The globalised world has brought both benefits and challenges, making it important to invest in collaboration and trust. The aim of this study is to understand the importance of trust, identify potential challenges and identify the key factors in building trust and collaboration in the global supply chain.

The study is a literature review that was conducted using thematic and synthetic analysis to find answers to the research questions. The study has used a wide range of sources to answer the questions. Most of the sources are related to supplier relationship management or areas related to global collaboration.

The findings highlighted particularly human factors but also factors such as structural and technological factors. Understanding and overcoming the challenges of collaboration and trust in the global supply chain requires work but significantly improves the quality of collaboration. In the study, elements related to information sharing emerged as the most important key factors.

KEYWORDS: supplier relationship management (SRM), trust in supply chains, collaborative supply chain management, global supply chain networks, supplier relationship building strategies

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TIIVISTELMÄ:
Kansainvälistynyt maailma on tuonut mukanaan niin hyötyjä kuin haasteitakin, jolloin yhteistyöhön ja luottamukseen panostaminen on merkityksellistä. Tutkimuksen tarkoituksena on ymmärtää luottamuksen merkitys, löytää mahdolliset haasteet ja selvittää tärkeimmät tekijät luottamuksen ja yhteistyön rakentamisessa globaalissa toimitusketjussa.

Kyseessä on kirjallisuuskatsaus, joka toteutettiin temaattisella sekä synteettisellä analyysillä vastauksien löytämiseksi tutkimuskysymyksiin. Tutkimuksessa on käytetty monipuolisesti lähteitä, joiden perusteella kysymyksiin vastataan. Useimmat lähteet liittyvät toimittajasuhteiden hallintaan tai globaaliin yhteistyöhön liittyviin alueisiin.

Havainnoissa korostuivat erityisesti inhimilliset, mutta myös esimerkiksi rakenteelliset ja teknologiset tekijät. Globaalissa toimitusketjussa ilmenevien yhteistyöhön ja luottamukseen liittyvien haasteiden ymmärtäminen ja niiden voittaminen edellyttää työtä, mutta parantaa merkittävästi yhteistyön laatua. Tutkimuksessa informaation jakamiseen liittyvät elementit nousivat tärkeimmiksi avaintekijöiksi.

AVAINSANAT: supplier relationship management (SRM), trust in supply chains, collaborative supply chain management, global supply chain networks, supplier relationship building strategies

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1 Introduction

Managing global supply chains involves complex factors that can cause difficulties for different companies, however, a global supply chain can provide an opportunity for a competitive advantage, for example by improving problem management through collaborative learning (Drake, 2012, p. 2). When working with a foreign business partner, trust must be established because of supply chain collaboration plans as well as sharing demand information (Drake, 2012, p. 26). Drake also writes that understanding cultural norms and customs makes it easier to build trust, but it takes a few years and often involves conflicts and risks.

Close relationships between buyers and suppliers can help ensure high-quality materials, speed up the introduction of new technologies and promote access to new markets (Lee, 2009, p. 1). According to Lee, companies build long-term and mutually beneficial partnerships with their key suppliers. This encourages suppliers to invest in specific skills or technologies that support their partner's needs. In a survey by Industry Week and IBM (2005), more than 62 percent of respondents agreed that collaboration with suppliers is the most effective strategy to reduce costs and increase profitability. Hughes' (2008) exhibit below shows how significant it is to build collaborative relationships.

Attributes of *least* collaborative relationships	Attributes of *most* collaborative relationships
■ Low level of trust; significant fear of opportunistic behavior by partner.	■ High level of trust; confidence that a company's actions will be fair and take partner interests into account.
■ Relatively little information (about plans, priorities, capabilities, etc.) is shared.	■ High degree of transparency about plans, priorities, capabilities, etc.
■ Focus (as evidenced by metrics, decision making, etc.) is on maximizing short-term, unilateral value.	■ Focus is on maximizing long-term value, and ensuring success of partner.
■ Differences (in goals, expertise, strategies, etc.) produce friction and undermine trust.	■ Differences are respected and leveraged as a source of innovation and value creation.
■ Conflicts are resolved on the basis of who has most leverage at any given point in time.	■ Conflicts are resolved "on the merits"; partners search out (or create) and apply objective criteria aimed at producing fair and reasonable outcomes.

Figure 1 Comparison of Least and Most Collaborative Relationships (Hughes, 2008)

There are attributes of the least and most collaborative relationships shown separately in the Figure 1. The "least" features are essentially the opposite of the "most" list. According to attributes of most collaborative relationships, the features are mutually beneficial for both parties: stronger trust, transparency, focus on maximising value, exploiting complementary differences and solving problems on real merits, not according to personal prejudices. These attributes build trust and collaboration in the global supply chain. Attributes of least collaborative relationships lack these features or are otherwise detrimental to collaboration.

This research explores trust and collaboration between suppliers in the global supply chain and the best practices and tools to build and maintain them. To find the most useful and workable options for this issue is the main objective of the study. The focus is on the global environment, i.e. only locally or nationally operating supply chains are excluded from the research. Mostly, it is the complexity of the environment and structure that distinguishes the global supply chain from the domestic one (Skjøtt-Larsen et al., 2007, p. 399). The book mentions that the complexity of the environment includes a variety of factors, such as political and currency risks, cultural and geographical differences, differences in legal systems and in infrastructure, and structural complexity. In this context structural complexity refers to the number and variety of different business areas, functions, organisational structures, markets and products that a company has to manage.

The subject is discussed especially from the point of view of supplier relationship management and cultural as well as psychological factors. Business and technological perspectives are also brought up to some extent.

1.1 Theoretical framework

The theoretical framework is the starting point for the research, and all the data and analyses presented in the study are developed based on it (Grant & Osanloo, 2014, p. 12). The authors specify that it provides the basis and support structure for the

research's justification, problem definition, objectives, significance and research questions. The basis for this study is supply chain management, trust and collaboration.

Supply chain management (SCM) refers to the management of processes and activities related to the movement of products and services from the supplier to the end customer including all intermediaries (Johnson et al., 2001, p.794). SCM is dependent on trust which can be defined as the willingness of a party to depend on the actions of another party based on the expectation that the other party will perform a particular action that is relevant to the trustor, without the trustor having an ability to control or direct the actions of that party (Mayer et al., 1995, p. 709). The article mentions the central idea of the integrative model of organizational trust, which is that trust is built on three key elements: ability, benevolence and integrity.

Collaboration, as another important factor, is described as a process in which independent parties interact through formal and informal negotiations and together form the rules and structures that govern their relationships and the ways of acting or making decisions on the issues that have brought them together (Thomson & Perry, 2006, p. 20). According to Thomson and Perry's model of collaboration, public managers should look inside the "black box" of collaborative processes. Within it is a multifaceted entity, which is seen as consisting of five variable dimensions: governance, administration, organizational autonomy, mutuality, and norms.

1.2 Background of the study

The subject of this research has already been widely studied from different perspectives and, particularly in the context of globalisation, there are even more factors that affect supply chain trust and collaboration.

Collaboration in supply chains has undergone many changes making it more complex. Pope (2011) specifies that global supply chains are not a new phenomenon, they are just more extensive and pervasive today. He states that globalisation is much more

widespread today than it was more than 100 years ago, and there are many more players, both companies and countries. The book also mentions a virtual supply chain which is a group of companies that are independent but operate as if they were one company, and this began to emerge in the 1990s. Virtual integration is a way for partners to share information and learn from each other. There is still a challenge, but an important factor for organisational learning, tacit knowledge, which refers to understanding, skills, abilities and experience (Qiao & Wang, 2021, p. 2). Although tacit knowledge cannot be directly digitised, its sharing can be facilitated through close interaction supported by information technology (Wang et al., 2006, p. 8). Qiao & Wang state that the quality of supply chain relationships has a significant impact on the sharing of tacit information, so the transfer of tacit knowledge requires trust and commitment between companies, and most of this knowledge is passed on through communication and collaboration.

As the competitive environment becomes more competitive, companies face challenges such as short product life cycles, supply chain disruptions and natural and man-made disasters (Banomyong, 2018). Building trust and collaboration in the global supply chain is an important topic because meeting these challenges, according to Banomyong, requires close collaboration with both supply chain partners and other stakeholders, so that companies can develop more efficient and flexible business models. Also, trust is at the heart of enabling collaboration, as it demonstrates the importance of social relationships in a global partnership (Panahifar, 2018, p. 362). However, there are various factors that can cause a lack of trust in the global supply chain.

1.3 Research questions and objectives

The objective of the thesis is to examine and analyse trust- and collaboration-related factors in the global supply chain to achieve the aim of the thesis. There are a few research questions to be answered:

1. What role does trust play in supply chain collaboration?

2. What challenges do companies face when building long-term trust-based partnerships with their suppliers?
3. What are the key factors that improve trust and collaboration from the perspective of supplier relationships?

1.4 Research methods

1.4.1 Research design and data collection

The study is based on a literature review, so information on the topic will be searched in different databases, such as EBSCO, ScienceDirect, ProQuest and Emerald, using key words appropriate to the topic. Keywords will be used, such as "trust in supply chain", "supplier relationship management" and "globality" and they are used in different combinations by using Boolean operators. By browsing and reading the appropriate scientific sources, data supporting the research topic is extracted.

Machi & McEvoy (2022) describe a literature review as a document that develops a topic for a thesis by combining existing knowledge on the subject area. It gathers and structures the knowledge related to the research question, forming the basis for logical argumentation and the construction of the thesis. The authors list steps to a successful literature review: selecting and defining a topic, developing the tools of argumentation, searching, surveying and critiquing the literature and writing the review. A literature review differs from, for example, an empirical study in that it analyses previous research, while an empirical study collects new data. There are already many sources on the topic of the thesis from different perspectives, so a literature review is an appropriate method and brings together useful information.

1.4.2 Selection criteria

The selection criteria are scientific, peer-reviewed, English-language sources, preferably published from the 2000s onwards, relevant subject selected and with titles that support the research questions. For example, opinion pieces or non-scientific sources are

excluded. A total of 39 articles were selected for the literature review after conducting literature searches across various academic databases using keywords related to trust and collaboration in supply chain and supply chain management. Table 1 below contains a summary of the search process:

Table 1 Search results

Database	Keywords and other criteria used to search literature	Number of articles found
EBSCO	Trust-building AND "Supply Chain Management" Language: English	5
ProQuest	Global AND "Supply Chain Management"	403
Emerald	"Communicating Supply Chain" AND Transparency	15
ScienceDirect	"Supply Chain" AND "Trust and Distrust" AND Collaboration Subject Area: Business, Management and Accounting	31

Table 1 shows how many sources were found for some search terms in the different databases. Through ProQuest, a lot of results came up because the search terms are

simple. In other databases, a more specific title was used for the search, as well as a more specific delimitation. From year 2000 onwards and the English-language delimiters sometimes seemed unnecessary, as there were very few articles outside these. The Appendix for the list of articles review contains which sources were used in the thesis and on which topic.

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1.4.3 Data analysis

The analysis of the data uses thematic analysis, which aims to identify and structure key themes related to the research topic. Synthetic analysis will also be used, bringing together data from different sources to form a complete picture.

Thematic analysis is used to find, understand and analyse the patterns of meaning, or recurring themes, in qualitative data (Clarke & Braun, 2017, p. 297). In a systematic approach, there are six steps for thematic analysis: exploring the material, identifying keywords, selecting codes (highlighting relevant parts), developing themes (grouping of codes), structuring meanings through analysis of keywords, codes and themes, and developing a conceptual model (Naeem et al., 2023). One challenge can be that the conversion of codes into themes is not always straightforward, which can produce inaccurate or fragmented themes.

1.5 Reliability and validity

Noble & Smith (2025) describe reliability as a consistency in the way the analysis is carried out and an awareness of possible biases in the researcher and methodology that may affect the results, and validity as the accuracy with which the findings match the actual data. These can be achieved through careful planning, appropriate methodology and consistency at different stages of the research, which are also considered in this literature review. Also, ensuring that the research process is logical and clear helps to achieve reliability and validity.

To ensure reliability, the study uses selection criteria such as peer-reviewed, English-language and scientific publications. The literature review is conducted systematically to ensure that it is coherent and well designed. A comprehensive search strategy is used to achieve validity. Sources will be searched from different databases using different keywords to obtain a wide range of data to answer the research questions.

2 Results and Findings from Literature Review

2.1 Supplier Relationship Management (SRM) and the Impact of Trust on Efficiency and Performance

Supplier relationship management is described as an approach in which buyers and suppliers work together, using each other's resources and building alliances to strengthen their competitive position in the market (Amoako-Gyampah et al., 2019, p. 160). The article also mentions that at the heart of SRM is the intentional management of relationships between buyers and suppliers. This will ensure that at least the quality and quantity of supplies required are correct and they will be delivered as scheduled. It is also stated that other important aspects of SRM include commitment to product design and material selection, technology investment, innovation, knowledge sharing and long-term partnership arrangements, and as the competition in the global supply chain environment intensifies, these collaborative practices are crucial to achieving a competitive advantage.

2.1.1 Supplier segmentation

O'Brien (2014, p. 48) highlights that there are three pillars of SRM which are "what", "whom" and "how", i.e. what is needed from the organisation's supply base, with whom to build a partnership and how to implement the measures. As the graph below shows, not all suppliers are of equal value to the company. Strategic, important and transactional suppliers are arranged at different levels in the triangle. Customers' need for faster delivery has led buyers and suppliers to integrate their operations more closely and buying companies have succeeded in this by maintaining different kind of relationships with suppliers depending on the criticality of the products (Hudnurkar et al., 2016, p. 623).

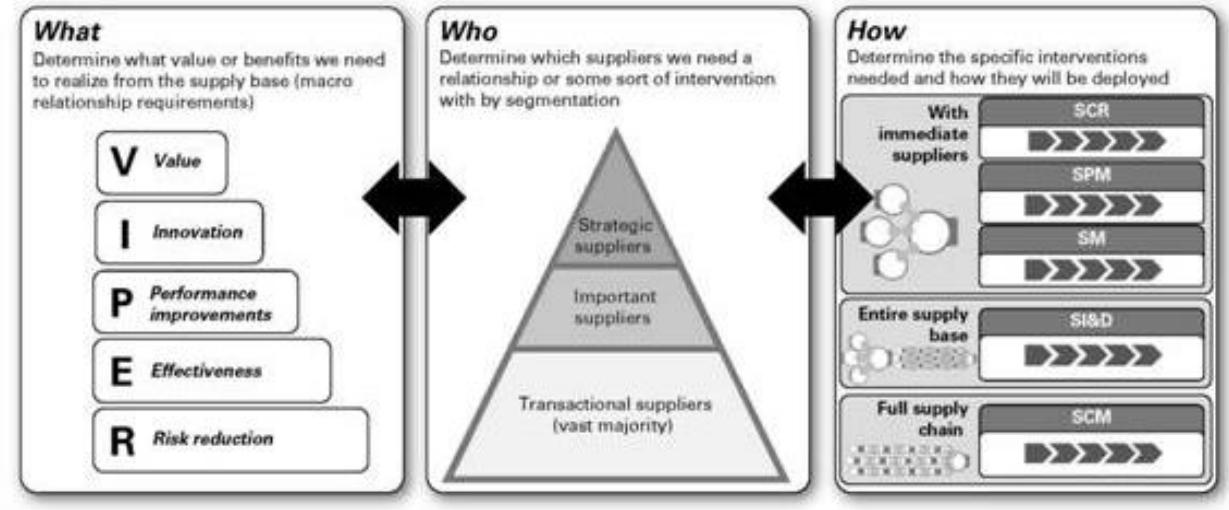

Figure 2 The three pillars of SRM (O'Brien, 2014, p. 49)

2.1.2 The importance of trust and the role of collaboration in supply chains

As mentioned earlier, trust is defined as the willingness of a party to depend on the actions of some other party based on the expectation of them performing a particular action that is relevant to the trustor, without the trustor having an ability to control or direct the actions of another party (Mayer et al., 1995, p. 709). The article further discusses that a clear understanding of trust and its determinants can help build cohesion and collaboration, offering other ways of building trust than just through similarity between people. Trust-based supply chain relationships include open information exchange, collaborative skills development, joint strategy planning and problem solving between partners (Collier & Sarkis, 2021, p. 3430).

In the last few years, trust has weakened in many industries in global supply chains, despite the consensus among CEOs and executives that maintaining and strengthening trust in supply chain relationships is a key to supply chain success (Yavaprabhas et al., 2023, p. 49–88).

O'Brien (2014, p. 16) presents the "5 Cs", which describe what companies need from the supply base: clarity, confidence, closeness, contribution and collaboration. According to

the model, the role of collaboration is reflected in the fact that certain suppliers can make a company better through collaboration.

In supply chain collaboration, different parties can be involved in joint decision-making, for example in demand forecasting and order fulfilment (Simatupang & Sridharan, 2005, p. 260). It is also stated that they use common performance indicators to assess the performance of both individual actors and the supply chain as a whole, and in addition, information is shared in a way that benefits all parties. The basic idea is that all members of the supply chain are able to meet customer needs efficiently and at lower cost. Figure 3 describes a simple structure of a collaborative supply chain.

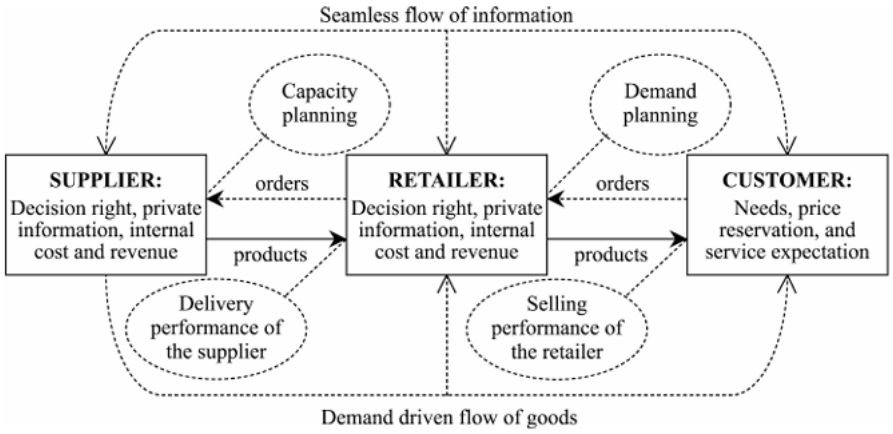

Figure 3 A simple structure of a collaborative supply chain (Simatupang & Sridharan, 2005, p. 260)

2.1.3 SRM and globality

As supply chains have become large and complex in a globalized world, close collaboration with supply chain partners is essential and it has positive effects on performance (Arora et al., 2021, p.4151). The article discusses that the level of collaboration between supply chain partners affects supply chain efficiency, which in turn improves productivity and profitability. It also increases trust, mutual respect, credibility and commitment between partners.

2.2 Challenges in Building Long-Term Partnerships

Challenges in supplier relationships include lack of trust between the parties, diverging objectives and priorities, and a lack of communication channels and structures between partners in the supply chain (Forslund & Jonsson, (2009), p. 79). In addition to these challenges, this chapter also examines other challenges.

2.2.1 The Commitment of Personnel

One reason for the decline or failure in collaboration and trust may be the departure of those who played a key role in maintaining the relationship, i.e. if certain supplier and buyer representatives are no longer dealing with each other, the problem is, will the partnership between companies last after this? (Padgett et al., 2020, p. 22). It has also been noted that the buyer's commitment to the supplier is influenced by how committed the buyer perceives the supplier to be (Prahinski & Benton, 2004, p. 42).

2.2.2 Reasons for lack of trust in supply chains

Many factors affect the decrease in trust in supplier relations, even though many companies promise, for example, honesty and fairness (Laeequddin & Sardana, 2009, Case overview). According to the book, people are often not a reason for distrust, but knowledge of people and thoughts of risks can often cause lack of trust in other companies. The low level of trust may also be due to the nature of tailor-made contracts in the sector, where contractual relationships are short-term, and teams are formed and disbanded according to projects (Challender et al., 2019, p. 29). In such temporary arrangements, there is little scope for relationship building at organisational or individual level.

2.2.3 Different objectives

Forslund and Jonsson (2009) discuss that the partners' objectives may differ significantly because of different competitive conditions, economic situations and financial

environments. However, the convergence of organisational objectives is seen as key, as common objectives allow collaboration to be tailored to partners' goals, which in turn strengthens their commitment (Vangen & Huxham, 2012, p. 732).

2.2.4 Problems with communication in a global world

According to a study by Verčič et al. (2015), increasing awareness of different cultures and languages can lead to a situation where core values take a back seat, making communication more complex to manage. Another identified challenge is that often many employees and an even larger proportion of customers and other stakeholders do not speak English.

Another major challenge is the difference in time zones around the world making it difficult to coordinate communication and schedules (Skjøtt-Larsen et al., 2007, p. 411). However, the authors state that the time-zone differences can be useful for programming and design, as teams in different parts of the world can work in shifts, allowing a project to run 24 hours a day which improves global collaboration in product development.

2.2.5 Cultural differences in the global supply chain

In today's globalized economy, it is essential for businesses to understand the differences between cultures (Ribbink & Grimm, 2014, p. 114). The article discusses that this is particularly true when it comes to the interaction between buyers and sellers, and when companies are doing a lot of business with international customers and suppliers and realize that successful negotiations require taking into account different cultural differences. Ribbink & Grimm suggest that this has an impact both on how people behave and how they interpret different situations. Furthermore, cultural differences affect dealing with conversations and situations, which can lead to misunderstandings between parties, and such challenges can lead to extended delivery times, missed

deadlines and poor product quality, creating friction and undermining trust in the collaboration (Durach et al., 2017, p. 850).

As a proposed solution, Jia & Lamming (2013) suggest that cultural adaptation can mitigate the negative effects of cultural differences in supply chain relationships. They argue that cultural adaptation is the process of assimilating into a foreign culture and gaining the acceptance of its members by adapting one's behaviour to match their customs and norms. The article mentions three levels of cultural adaptation: understanding, adjusting, and learning.

2.3 The Role of Open Communication and Conflict Resolution in Supply Chain Partnerships

As with friendships, for example, supplier relationships need to respect boundaries too, in other words, how to behave towards each other (O'Brien, 2014, p. 244). For collaboration to succeed, customers and suppliers need to see themselves as partners, be open with each other and commit to creating value and supporting each other's success (Hughes, 2008, p. 23).

2.3.1 Creating trust in the early stages and deepening trust over time

To achieve collaborative trust, three trust-building factors need to be considered: allowing time to develop, delivering a steady stream of positive results and motivating the necessary relative investment (Fawcett et al., 2012, p. 169).

Fawcett et al. (2012) list four stages of trust which are limited, transactional, relational and collaborative trust. According to authors, the primary objective of limited trust is to minimise short-term costs, while ensuring that quality remains at a predefined level, without heavily investing in trust-building or transparency. Stage 2 relationships (transactional trust) are well-functioning and reciprocal and have developed through successful transactions and positive results. Compared to the stage 2, stage 3 (relational

trust) has a higher value creation capacity and managers have a vision of trust and collaboration as a strategic tool. Lastly, stage 4 relationships (collaborative trust) are based on a shared understanding, where the parties see the resources and skills of supply chain partners as part of the expansion of their own business.

2.3.2 The link between trust and contract

A contract is an agreement between two or more parties and with a supplier it is an important part of the supplier relationship management process, ensuring that we get what we need and want, and protecting us from unexpected situations (O'Brien, 2014, p. 220). TCE and contract theory emphasise that contract is the cornerstone of trust because it reduces the space and incentives for opportunism (Woolthuis et al., 2005, p. 817). The writers state that there is a positive link between the contract and trust, because it is essential for the parties to act reliably, so the contract serves as a basis for trust. But they also discuss about another interpretation that there is a negative correlation between trust and contract: trust, which is an essential part of the basis of the relationship, reduces or eliminates the need for formal control procedures or agreements. Han et al. (2021) state that the use of very detailed legal agreements can undermine long-term and close relationships between supplier and manufacturer, as they can signal mutual distrust or caution. This in turn may prevent the parties from sharing information and resources openly.

2.3.3 Transparency in supply chain

Transparency is an important part of supply chain management: companies proactively disclose information to their stakeholders about products and processes that partners might not otherwise have access to, and this openness reflects the perception that trust between organizations and their stakeholders is being strengthened (Duan et al., 2022, p. 69). However, businesses and suppliers fear that excessive disclosure could weaken their competitive advantage or make them vulnerable to criticism (Wang et al., 2024, p.

1541). The authors also highlight that the challenge may be that not all relevant information, such as upstream practices, may not be collected or may be inaccurate.

2.3.4 International Communication Management

Communication is a key part of most international business: sharing information, building and strengthening relationships, negotiating agreements and building and maintaining opportunities for collaboration transactions (Szkudlarek et al., 2020, p. 1).

2.3.4.1 The use of Information Technology in the global supply chain

The global system includes networks, communication tools and software (Skjøtt-Larsen et al., 2007, p. 410). Advances in information technology have led to information sharing becoming a key feature of supply chain collaboration, and while information sharing itself can improve performance, chain members also use it to improve their own processes to become more efficient (Simatupang & Sridharan, 2005, p. 259). IT allows partners to coordinate the supply chain effectively at two levels: by working together operationally and by participating in joint process planning and management (Wang et al., 2006, p. 7).

2.3.4.2 Overcoming Cultural Barriers in International Communication

Improving intercultural communication requires several measures to be taken (Prince et al., 2007, p. 31). According to the book, it is important to be prepared to recognise cultural differences, to pay attention to non-verbal communication, to speak and write clearly, considering different cultural perspectives, to understand the meaning of names and titles, to use humour carefully, to show respect for different cultures and to commit to lifelong learning about different cultures.

2.3.5 Dealing with conflicts between business partners

Conflicts are common in interorganizational relationships, as the parties are inherently interdependent (Mohr & Spekman, 1994, p. 139). Wang et al. (2005) analyse the Thomas-Kilmann's conflict management model in their article. The model includes five styles of handling conflicts: avoiding, accommodating, collaboration, competing and compromising, and culture often influences how an individual acts in a conflict. When conflict arises in a business relationship, it is important to take steps to minimise the negative effects and maximise the positive outcomes (Ratajczak-Mrozek et al., 2019, p. 242). The article suggests that the formal conflict handling methods are defining common interests and goals, implementing measures that guarantee benefits for all partners, or promoting collaboration that encourages partners to work together in their own interests. As regards informal conflict handling, it is suggested that measures include building trust, commitment to conflict resolution and close interaction between partners.

2.4 The Importance of Data Security

2.4.1 Statistics of cyber attacks

According to Statista (2024), the impact of supply chain cyber attacks on customers varied considerably between years 2019 and 2024. In recent years, the number of cases has clearly decreased.

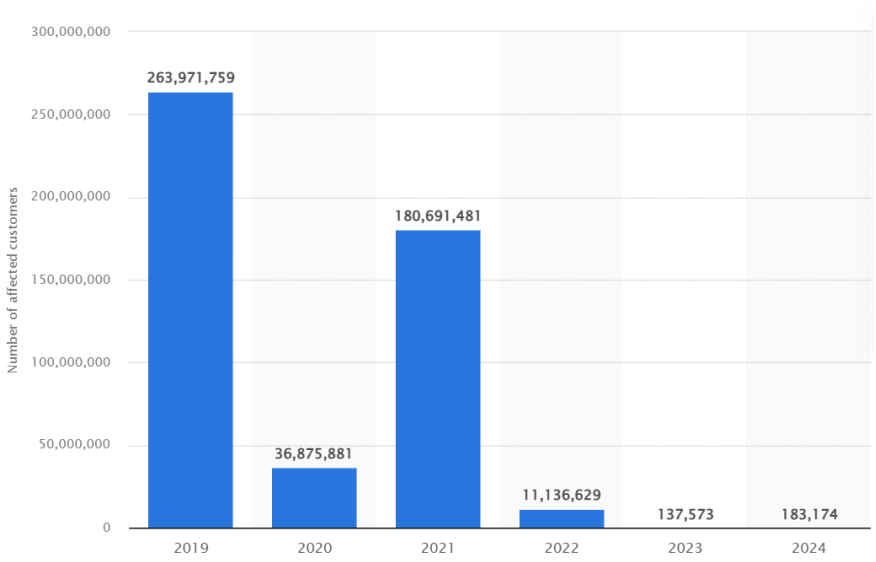

Figure 4 Annual number of customers impacted by supply chain cyberattacks worldwide from 2019 to 2024 (Statista, 2024)

2.4.2 Data security and supply chains

An important challenge in collaborations is ensuring that the information sharing system between partners is secured (Panahifar, 2028, p. 373). Collier & Sarkis (2021) mention that trust has been examined from the perspective of information security, especially how access to restricted data or systems is granted. They state that traditional boundaries change and lose their clarity, the vulnerability of the system increases, providing more opportunities for cyber threats to attack. It is also challenging to monitor the activities of network users, including business partners and contractors, who may be well-intentioned but may unknowingly expose the system to attacks, the authors highlight.

2.5 Key Factors for Improving Trust and Collaboration in the Global Supply Chain

Globalization and supply chain management (SCM) are inextricably linked, as globalization opens access to new customers and sources of supply, but to take

advantage of it requires an understanding of different markets, partners, risks and rules worldwide (Vidrova, 2020, p. 3).

Many important factors in building trust and collaboration in the global supply chain have been mentioned earlier. As described in Figure 5 below, the key factors can be concluded to be information sharing, understanding cultures, commitment, common objectives, patience, transparency, communication, learning and data security. So, by meeting these conditions, trust and collaboration can be seen to improve.

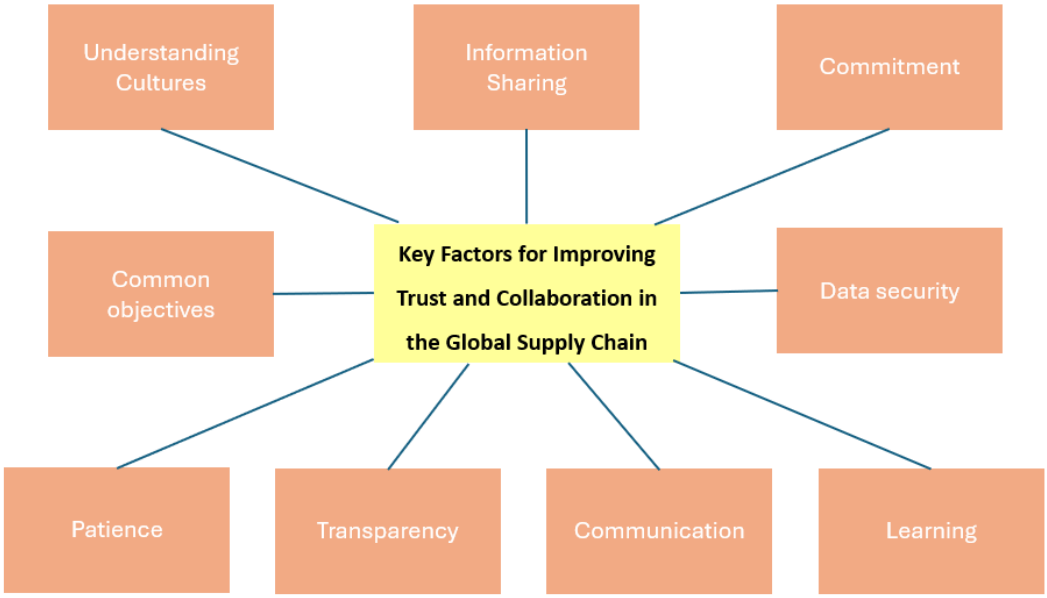

Figure 5 Key Factors for Improving Trust and Collaboration in the Global Supply Chain

3 Discussion on Results and Findings

3.1 Answers to the research questions

By analysing the findings and results of the study, answers to the research questions can be deduced.

3.1.1 What role does trust play in supply chain collaboration?

The first research question was “What role does trust play in supply chain collaboration?” According to the findings, it can be concluded that trust plays an important role in helping to build cohesion and collaboration, but building trust takes effort from all parties involved. The study looked at the causes of lack of trust, which highlights lack of information, poor communication, perceptions of risks (such as financial and data security risks) and staff turnover. So, it can be stated that building trust requires investment in these areas.

3.1.2 What challenges do companies face when building long-term trust-based partnerships with their suppliers?

Answers to the question “What challenges do companies face when building long-term trust-based partnerships with their suppliers? “have been found to be: poor commitment, staff turnover, lack of trust, different objectives, poor communication, cultural and linguistic challenges and different time zones. Global collaboration has many benefits for companies, but these challenges can sometimes cause damage.

3.1.3 What are the key factors that improve trust and collaboration from the perspective of supplier relationships?

While the previous question deals with challenges, the last research question "What are the key factors that improve trust and collaboration from the perspective of supplier relationships?" examines that how challenges can be overcome. The key factors were

found to be information sharing, understanding cultures, commitment, common objectives, patience, transparency, communication, learning and data security. It is therefore important to share relevant and necessary information with partners in an open and transparent way. Commitment to collaboration improves the commitment of the other party and shared objectives make collaboration easier. Trust can take time to develop, so patience is needed and investing in communication plays an important role. Language barriers can be challenging, but understanding and learning from different cultures greatly improves the quality of global collaboration. The last factor, ensuring data security improves trust in partners and can reduce fears of risks.

4 Conclusion

The research shows that there are several challenges in building trust and collaboration in the global supply chain, and they are influenced by a wide range of versatile factors. Creating and building trust is possible, but it can require time, action and thinking. Because trust and collaboration are strongly interlinked, the factors that support their development often support both at the same time.

The identified key factors play an important role in building trust and collaboration in the global supply chain. Those working on supply chain relationships should therefore implement these elements: information sharing, understanding cultures, commitment, common objectives, patience, transparency, communication, learning and data security. The findings of the study can help develop supply chain relationships to become more effective and collaborative. It is important to share relevant information with partners in an open and transparent way, taking into account data security, and ensure the security of other parties. There should be commitment and adequate communication, for example to clarify common objectives and ensure continuous learning. Different cultures can be learned, understood and adapted. However, building trust can take time, so patience is essential.

However, the literature review did not address all aspects, such as the importance of sustainable development. In addition, some of the results may be context-specific and therefore not applicable to all sectors.

The findings can provide a valuable basis for practical work or further research. The appropriate sources found for the research topic provided comprehensive answers to the research questions from different perspectives. There are several studies on the subject, but as technology plays an increasing role in a globalised supply chain, future research could seek more answers to the impact of digital systems and AI on collaboration on a practical level. There could also be more publications on the ethical issues and challenges of global collaboration.

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Appendices

Appendix 1. List of articles reviewed according to theme

Author and year	Article title	Related theme
Amoako-Gyampah et al. (2019)	Supplier relationship management and firm performance in developing economies: A moderated mediation analysis of flexibility capability and ownership structure	Supplier Relationship Management
Arora et al. (2021)	Global value chains' disaggregation through supply chain collaboration, market turbulence, and performance outcomes	Global Collaboration in Supply Chains
Banomyong (2018)	Collaboration in supply chain management: A resilience perspective	Trust and Collaboration in the Global Supply Chain
Challender et al. (2019)	Building collaborative trust in construction procurement strategies	Reasons for Lack of Trust in Supply Chains
Collier & Sarkis (2021)	The zero trust supply chain: Managing supply chain risk in the absence of trust	Trust in Supply Chain Relationships
Drake (2012)	Global supply chain management	Trust and Collaboration in the Global Supply Chain

Duan et al. (2022)	Communicating supply chain sustainability: Transparency and framing effects	Transparency in Supply Chain
Durach et al. (2017)	Disruption causes and disruption management in supply chains with Chinese suppliers: Managing cultural differences	Cultural Differences in the Global Supply Chain
Fawcett et al. (2012)	Supply chain trust: The catalyst for collaborative innovation	Trust in Supply Chain Relationships
Forslund & Jonsson (2009)	Obstacles to supply chain integration of the performance management process in buyer-supplier dyads: The buyers' perspective	Challenges in Supply Chain Relationships, Objectives in Supply Chain Relationships
Han et al. (2021)	The trade-off between trust and distrust in supply chain collaboration	the Link Between Trust and Contract
Hudnurkar et al. (2016)	Multi-criteria decision framework for supplier classification in collaborative supply chains: Buyer’s perspective	Supplier Segmentation
Hughes (2018)	From vendor to partner: Why and how leading companies collaborate	Supplier Relationship Management

	with suppliers for competitive advantage	
IndustryWeek (2005)	IW Value Chain Survey: A Map of the World	Global Collaboration in Supply Chains
Jia & Lamming (2013)	Cultural adaptation in Chinese-Western supply chain partnerships	Cultural Differences in the Global Supply Chain
Lee (2019)	A fuzzy supplier selection model with the consideration of benefits, opportunities, costs, and risks	Supplier Relationship Management
Mayer et al. (1995)	An integrative model of organizational trust	Trust in Supply Chain Relationships
Mohr & Spekman (1994)	Characteristics of partnership success: Partnership attributes, communication behavior, and conflict resolution techniques	Conflicts in partnerships
O'Brien (2014)	Supplier relationship management: Unlocking the hidden value in your supply base	Supplier Relationship Management, Supplier Segmentation, the Link Between Trust and Contract
Padgett et al. (2020)	Buyer dependence in B2B relationships: The role of supplier investments, commitment form, and trust	The Commitment of Personnel in Supplier Relationships

Panahifar et al. (2018)	Supply chain collaboration and firm's performance: The critical role of information sharing and trust	Trust in Supply Chain Relationships, Data Security in Supply Chains
Pope (2011)	Supply-chain survival in the age of globalization	Global Collaboration in Supply Chains
Qiao & Wang (2021)	The effect of relational capital on organizational performance in supply chain: The mediating role of explicit and tacit knowledge sharing	Tacit Knowledge in Supply Chain Relationships
Ratajczak-Mrozek et al. (2019)	Conflict handling in small firms' foreign business relationships	Conflicts in partnerships
Ribbink & Grimm (2014)	The impact of cultural differences on buyer–supplier negotiations: An experimental study	Cultural Differences in the Global Supply Chain
Prahinski & Benton (2004)	Supplier evaluations: Communication strategies to improve supplier performance	The Commitment of Personnel in Supplier Relationships
Prince et al. (2007)	An ideas into action guidebook: Communicating across cultures	Cultural Differences in the Global Supply Chain

Simatupang & Sridharan (2005)	An integrative framework for supply chain collaboration	Global Collaboration in Supply Chains
Skjøtt-Larsen et al. (2007)	Managing the global supply chain (3rd ed.)	Global Collaboration in Supply Chains
Szkudlarek et al. (2020)	Communication and culture in international business – Moving the field forward	International Communication Management
Thomson & Perry (2006)	Collaboration processes: Inside the black box	Collaboration Between Companies
Vangen & Huxham (2012)	The tangled web: Unraveling the principle of common goals in collaborations	Objectives in Supply Chain Relationships
Verčič et al. (2015)	Global public relations and communication management: A European perspective	Cultural Differences in the Global Supply Chain
Vidrova (2020)	Supply chain management in the aspect of globalization	Global Collaboration in Supply Chains
Wang et al. (2006)	A virtual integration theory of improved supply-chain performance	Tacit Knowledge in Supply Chain Relationships, Information Technology in Supply Chain Relationships
Wang et al. (2005)	Conflict handling styles in international joint ventures: A cross-cultural	Conflicts in partnerships

	and cross-national comparison	
Wang et al. (2024)	The impact of supply chain strategy on supply chain transparency over the firm lifecycle: Evidence from China	Information Sharing in Supply Chain Relationships
Woolthuis et al. (2005)	Trust, contract and relationship development	the Link Between Trust and Contract
Yavaprabhas et al. (2023)	Blockchain as the “trust-building machine” for supply chain management	Trust in Supply Chain Relationships