Buyer-Supplier Partnerships within IT Purchasing

A case study at Volvo Group

Master's thesis in Quality and Operations Management

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SUMMARY

The role of the purchasing division has changed over time, moving from an administrative function to a strategic one. How a buyer manages its suppliers can greatly impact the performance of the company. Supplier management have moved from putting the suppliers at an arm's length distance to interacting closer with selected suppliers. Volvo Digital & IT are looking to develop how they work with their suppliers, and especially with partnerships. To investigate the topic of partnerships within IT services, a thesis based on semi-structured interviews and observations were carried out at Volvo Group and with some of their strategic suppliers. The results shows that the current way of working can be beneficial in a partnership relationship, however there are some areas where changes could be made. Improved internal alignment, increased risk-sharing, and a precise definition of what a partnership is, are areas of improvement.

Keywords: Buyer-supplier relationships, Partnerships, Strategic partnerships, Performance-based contracting, Supplier risk management, IT services

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Abbreviations

AP – Automotive Purchasing

CSM – Customer Success Manager

GTP – Group Trucks Purchasing

KAM – Key Account Manager

KPI – Key Performance Indicator

PBC – Performance-Based Contracting

ROI – Return on Investment

SD&I – Services, Digital & Investments

SLA – Service Level Agreement

SPOC – Single Point of Contact

TCO- Total Cost of Ownership

VM – Vendor Manager

Contents

1. Introduction

In this chapter a brief background to the thesis will be provided, both from the perspective of Volvo Group and relevant literature. Thereafter will the aim of the study be presented, followed by the research questions. It should be noted that throughout the paper “Volvo Group” will also be referred to as simply “Volvo”.

1.1 Background

First a presentation of Volvo Group Purchasing will be given and their current way of working and how they categorize their suppliers. A brief literature background will then follow about the strategic role of the purchasing division and its role in supplier management.

1.1.1 Volvo Group’s Background

Volvo Group Purchasing is a global function of the Volvo Group, which performs purchasing activities for all truck brands of the Volvo Group (Volvo Group, 2023). The purchasing function is split into Automotive Purchasing (AP) and Services, Digital & Investments (SD&I)[1]. SD&I is part of Volvo Group Purchasing and handles the optimization of the supplier base for industrial systems and the Group’s Development Service area (Volvo Group, 2023). In 2021, Volvo Group Purchasing spent SEK 143 billion in their purchases, with AP spending SEK 105 billion and SD&I spending SEK 38 billion[1]. Volvo Group Purchasing has in total 24,300 actors in their supply network and the SD&I-division employs around 230 people in 19 different countries and 40 cities[1]. SD&I purchases are divided into four categories: *Services*; *Market Companies and Purchasing Revenue*; *Investment, Packing and Industrial Consumables*; and *Digital and IT*. Digital and IT are responsible for purchases such as business applications for product development, sales and aftermarket, production and logistics, and business administration as well as infrastructure and operations related purchases[1]. Volvo Group previously had a department responsible for the IT infrastructure, but around the year 2014 it was divested, and the competence was outsourced instead, putting more focus on core competencies, while also reducing costs and improving efficiency in the IT landscape[2]. This

[1] Volvo Group. (2022). *Change to stay Ahead*. Unpublished internal company document.

[2] Personal communication, February 14, 2023.

master's thesis will focus on the activities and strategic supplier relationships of the Digital & IT team.

Digital & IT currently use four different groups for categorizing their suppliers: Strategic, Niche, Key and Non-critical. Right now, Volvo's criteria for categorizing a supplier are based on the following parameters: current and future spending, planned horizon of a relationship, alignment with strategic goals of Volvo, and value added to Volvo[3]. The current number of suppliers in the strategic category is around half a dozen, and the strategic, key, and niche suppliers currently make up 80 percent of the total spend[4].

According to one Head of Purchasing at Volvo, there can be potential for partnerships in several of the categories[5]. Volvo are today relying more and more on collaboration with other companies, to create value for their customers[6]. Moving from mainly transactional arrangements towards relationships built on closer collaboration with selected suppliers. Volvo's governance of a certain relationship is guided by which category it belongs to[7]. But if a supplier is deemed suitable for a partnership, the governance required might be different compared to the current recommended procedure. For example, with the current set-up, the governance of a niche-supplier will not involve strategic meetings with executives present[7]. However, if a current niche supplier would be deemed suitable for a partnership, executive meetings might be necessary and beneficial for leveraging the possibilities of a partnership. The introduction of a category called partnerships might therefore bring with it better resource allocation, more tailored towards the actual demand for the relationships in question. However, other criteria than the ones currently used for categorizing suppliers can be suitable to decide if a supplier should be considered for a partnership.

1.1.2 Theoretical notions on development in supply chains and sourcing

Managing and looking after one's supplier relationships is essential to succeed in most industries and creates better opportunities for developing novel business opportunities (Cooper & Ellram, 1993), maybe more today than ever before. Many decades ago, automotive

[3] Personal Communication, February 7, 2023.

[4] Volvo Group. (2021). *IT Supplier Governance*. Unpublished internal company document.

[5] Personal Communication, February 6, 2023.

[6] Personal Communication, January 17, 2023.

[7] Volvo Group. (2015). *IT Supplier Governance Model*. Unpublished internal company document.

companies usually did everything on their own, a good example being Ford's plant Highland Park, but in today's business environment the trend is to focus more on core capabilities and create a strong supply network, making supply chain management and purchasing more strategic, rather than transactional (Adobor & McMullen, 2014; Cooper & Ellram, 1993).

Araujo et al. (2016) describe how the role of the purchasing division and its activities have changed from being purely about administration towards being more strategic. This change in view of the purchasing function has coincided with changes in the way it relates to both suppliers and other functions in the same company. According to Araujo et al. (2016), during the 70s and onward the relationships with suppliers changed from a combative and non-integrative one, into a more collaborative and integrative view on suppliers. Suppliers were now seen as sources of improvement and knowledge that could help the buying company. At the same time, the purchasing function started to take on additional responsibilities to solve problems such as bad quality and high costs, which required them to work closer with other company functions (Araujo, Gadde, & Dubois, 2016).

Sourcing and procurement of services, such as IT, is in some ways different than for physical goods, often demanding more time and resources, especially during comparison and selection of supplier (Wynstra, Rooks, & Snijders, 2018). The type of service also influences the buyer-supplier relationship and its governance (Baptista, Mota, & Santos, 2022). Services are today a substantial part of the world's economy and companies' expenditures on business-to-business services are growing and gaining more importance (Ellram, Tate, & Billington, 2007; Wynstra, Rooks, & Snijders, 2018).

1.2 Aim

This thesis project aims to investigate when it can be beneficial to enter a partnership with a supplier and give input into how this type of relationship can be managed. Along with these two goals of the project it is also necessary to define what a partnership would be for Volvo Digital & IT. Clearly defining the term partnership is important for its future use, and to avoid confusion when used within strategic decisions and daily operations. The project is aimed towards the Volvo Group and the Digital & IT department but will hopefully also be applicable for other companies in similar contexts.

1.3 Specification of issue under investigation

Based on the background given above, there can be a potential benefit for Volvo but also for research to investigate the area of IT partnerships. The following research questions will hopefully balance the need for both specificity and generality, using Volvo Group as a case company to get insight into the conditions for IT partnerships. As mentioned before, Volvo SD&I, and more specifically Digital and IT, have four categories for classifying suppliers: non-critical, key, niche, and strategic. These categories are in large part based on monetary spending. However, there are concerns that there might be differences within these groups that should affect the way the relationship with them should be managed[8]. From the initial discussions, there seems to be different views on which suppliers should be considered as partners, and what this categorization should entail. The first research question therefore becomes:

RQ1: How should partnerships with suppliers at Digital & IT at Volvo Group be defined?

Close to the definition of a partnership, there is a need to investigate the characteristics of suppliers that can be fitting for entering partnerships. Some of the suppliers might be more suitable for close collaboration, while with others it might be better to engage in a more transactional kind of relationship. Therefore, it is necessary to distinguish between relationships and their characteristics to determine which ones are suitable for a partnership. This leads to our second research question:

RQ2: What indicate that a supplier can be suitable for a partnership?

The reason for wanting to categorize different suppliers is often to allocate resources in an efficient way. For example, both Bensaou (1999) and Araujo et al. (2016) highlights different ways of allocating resources through the lens of portfolio theory and supplier interfaces respectively. Right now, the foundational governance model is the same for all strategic suppliers. This might not be a proper way of allocating resources since Volvo might overinvest in some relationships and underinvest in others because of this[8]. This is in line with Bensaou's (1999) thoughts, that it is important to invest the appropriate amount of resources in a relationship, and that both over- and underinvesting should be avoided. According to Gadde & Snehota (2019), frameworks and other management tools can be beneficial in purchasing for

[8] Personal Communication, February 15, 2023.

organizing the assessment of a situation and then translating it into action. It thus becomes important to know how to manage partnership suppliers. This leads to our third research question:

RQ3: How should partnerships with Digital & IT suppliers be managed?

These insights could for example capture the frequency and type of meetings that would be adequate for maximizing the potential of a partnership. The communication channels with partners, the internal organization, and risk management are also topics of interest.

2. Framework

This framework will serve as the knowledge base for the project and will be used to help with developing questions for interviews and to answer the research questions. Also, Volvo has shown interest in exploring what previous research has found to be good practices for partnerships in buyer-supplier relationships. This includes both the selection and management of partnership-type relationships. This means that this framework will serve as a deliverable to Volvo, which they can use to further their understanding of the topic and see other possibilities for improvement.

The framework is divided into the following parts: *Differences in Goods and Service Procurement*, *Purchasing Portfolio Theory*, *Supplier Interfaces and Interaction*, *Managing Partnerships in Supply Chains*, *Power Relation Between Buyer and Supplier*, *Organizational Structure and Strategy*, *Total Cost of Ownership*, *Return on Investment*, and *Technology Roadmapping*. The subchapters highlight different relevant aspects in relation to the topic of buyer-supplier partnerships, found while reviewing the literature. Since the study centers around the purchasing of IT solutions, it is interesting to determine if there is any difference between the procurement of goods and services, and especially IT services. This will determine if there is a need to find specific literature on the topic of IT, and how the more general literature on purchasing can be used. To set the stage of where strategic partnerships can fit into the overall picture of purchasing activities the subject of purchasing portfolio theory was investigated. From this it became apparent that partnerships are one of several viable relationship-types, and that there needs to be certain criteria for when to engage in partnerships. The next step became to see what the different ways of communicating and interacting within relationships are, and when they can be suitable and beneficial. These two chapters contributed to the development of the first research question, which is: “How should partnerships with suppliers at Digital & IT at Volvo Group be defined?” The initial broader focus on different aspects of relationships was then narrowed down to focusing on the management of partnerships specifically. This helped in identifying what practices and principles are beneficial, especially for partnership-type arrangements. From some of the initial interviews, respondents seemed to gravitate towards explaining some phenomena in their work by referring to power balance and organizational structures, which lead to including literature on these topics for further understanding. The chapters on *Purchasing Portfolio Theory, Managing Partnerships in Supply Chains*, and *Power Relation Between Buyer and Supplier* is used in formulating the second research question: “What indicate that a supplier can be suitable for a partnership?”

The last research question: “How should strategic relationships with Digital & IT suppliers be managed?” is related to the chapters on *Supplier Interfaces and Interaction*, *Managing Partnerships in Supply Chain*, *Power Relation Between Buyer and Supplier*, *Organizational Structure and Strategy*, *Total Cost of Ownership*, and *Return on Investment.*

2.1 Differences in Goods and Service Procurement

Several authors have highlighted differences between goods and services, and services can be differentiated from goods by several different characteristics (Moeller, 2010). According to Moeller (2010), what characterizes a service are its intangibility, heterogeneity, inseparability, and perishability. There is also the view that goods are only a vehicle for a customer to receive a service (Vargo & Lusch, 2004). According to Wynstra, Rooks, & Snijders (2018), there are some differences in procuring services compared to goods, at least when it comes to the purchasing of IT. However, Wynstra, Rooks, & Snijders (2018) argues that differences between procuring services compared to goods are not based on something that is fundamentally different about services, but rather that the underlying characteristics have other values for services as a group compared to goods as a group. Wynstra, Rooks, & Snijders (2018, p. 91) describe “…that these differences in transaction costs between transactions involving services and those without or with less service, are almost fully due to differences in volume, complexity, switching costs, buyer uncertainty and the network embeddedness of the transaction.” Their conclusion that there is not any inherent difference in the purchasing of services means that we will be able to use a wide range of purchasing-focused literature, and not only using papers focused on services or goods. Also, in many value offerings it might be hard to differentiate between the service part and the goods part. The differences between procuring services as a group and goods as a group can be seen both before and after the point of the transaction (Wynstra, Rooks, & Snijders, 2018). According to Wynstra, Rooks, & Snijders (2018), services in general require more time and resources compared to goods, both ex ante and ex post from the transaction. Examples of activities that are resource-intensive in the procurement of IT services are the selection and search of suppliers and resolving problems related to the usage of a service.

Wynstra et al. (2006) present a classification of services, based on how the service fits into the buyer’s business processes. They divide it into four different types of services: Component services, Semi-manufactured services, Instrumental services, and Consumption services. Of special interest for this thesis are the Instrumental services, which are services that influence the buying company's processes but are not being delivered to the end-customer, e.g., an ERP system. These kinds of services can demand more or less collaboration and communication between the buyer and supplier, depending on the type of service, how standardized the offering is from the supplier, if it is operated solely by the buyer or if the supplier is involved in the daily operation, etcetera. Characteristic for instrumental services is that they require the supplier to have good understanding of the buyer's situation and processes, but it also requires that the buyer fully understands how the service will fit into their business, which in turn demand the involvement of various stakeholders and sharing of sensitive information (Baptista, Mota, & Santos, 2022). How a relationship with a supplier should be governed and what communication interfaces that should be used is closely related to the kind of service that is supplied (Baptista, Mota, & Santos, 2022; Wynstra, Axelsson, & Van Der Valk, 2006).

2.2 Purchasing Portfolio Theory

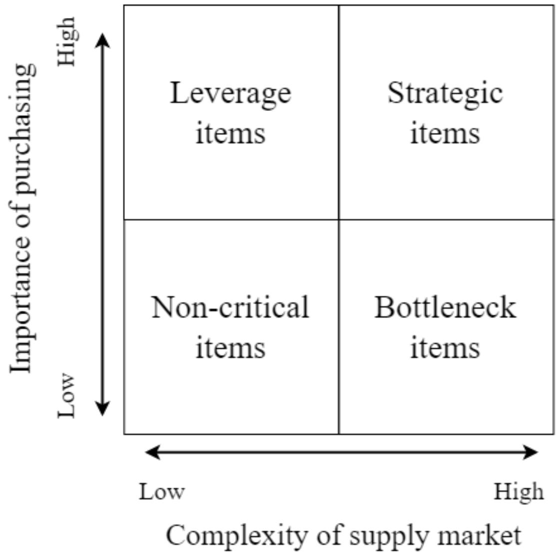
Purchasing portfolio theory highlights different situations and relationships present in supply chains. Two major subjects within purchasing portfolio theory are supplier categorization and correct resource allocation. The chapter is divided into the following parts: Structuring the purchasing portfolio, Differences in relationships within the portfolio, and Setup and management of a purchasing portfolio.

2.2.1 Structuring the Purchasing Portfolio

When working with suppliers, having a perspective that does not only view each relationship in isolation but also how they relate to each other might be beneficial (Wagner & Johnson, 2004). In purchasing, different types of situations can be classified according to the Kraljic Matrix (Caniëls & Gelderman, 2005). According to Kraljic (1983), the strategy that a company should use depends on two factors. These factors are the strategic importance of purchasing in terms of value added and the complexity of the supply market, see Figure 1 for an illustration. When both the strategic importance and the complexity is high, we are in an area that can be called supply management or strategic items (Caniëls & Gelderman, 2005; Kraljic, 1983). This highlights a change in supply chain management, from focusing on only achieving the lowest price from a supplier towards an optimization of the whole supplier portfolio, according to Wagner & Johnson (2004). According to Caniëls & Gelderman (2005), strategic items are an area where forming long-term partnerships can be beneficial. Because of the difference in the strategy deployed depending on the factors mentioned above, we will focus on supplier relationships where close partnerships can be suitable and how they should be managed. This means that other kinds of relationships that can be suitable for other types of suppliers and items will not be included. According to Caniëls & Gelderman (2005), the other three quadrants of the Kraljic-Matrix can be called Leverage Items, Bottleneck Items and Non-critical Items. Their respective strategies are to exploit purchasing power, ensure supply and ensure sufficient processing. While these are important for companies to manage, they will not be the focus of our thesis. By viewing the set of relationships an organization has through a portfolio perspective, the proper allocation of its limited resources can be found (Wagner & Johnson, 2004). Also, according to Wagner & Johnson (2004), the practice of supply portfolio management is commonplace and viewed as an integral part for the success of firms.

Figure 1

The Kraljic Matrix

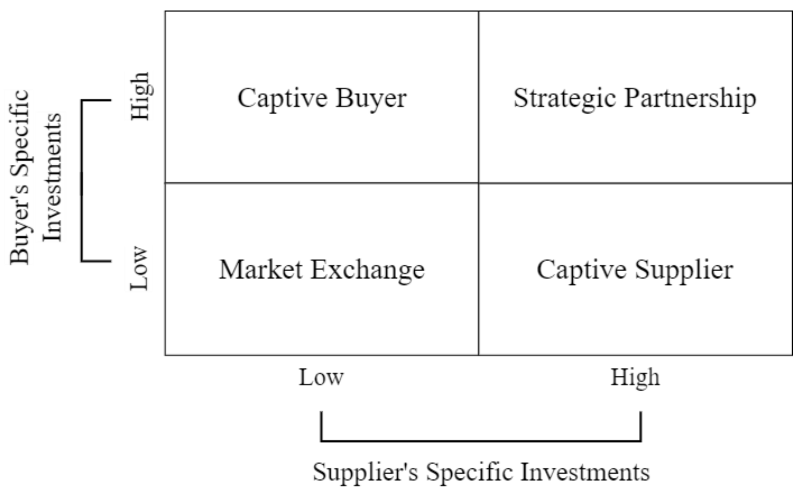


Note. Inspired from Caniëls & Gelderman (2005)

In addition to the Kraljic-matrix, Bensaou (1999) describes the types of relationship between a supplier and a buyer by a different set of measures. The author classifies relationships based on the amount of specific investment by both the supplier and the buyer, illustrated in Figure 2. Specific investments are investments that do not have much or any value if used in another relationship. Four different cells are created in a matrix with the amount of specific investment by the buyer and supplier on their respective axles. When both the buyer and the supplier have high levels of specific investments towards the other party, they are in a strategic partnership. Bensaou (1999), then explains that the success of a relationship depends on another set of factors, which varies between different types of relationship. In all scenarios "…the managerial practices that high performers in each cell use to match the coordination, information, and knowledge exchange requirements presented by the external context..." (Bensaou, 1999, p. 42). It is important that an actor invests the appropriate amount of resources into a relationship, in order for the relationship to be beneficial (Bensaou, 1999). Both over- and underinvesting in a relationship will be detrimental, and either be a waste of resources that could be better used elsewhere or will hinder the realization of the potential inherent in the relationship (Bensaou, 1999). Gadde & Snehota (2019) also argues along these lines, stating that when looking through the lens of the trade-off between cost and benefits, two types of relationships emerge. One type of relationship is the high-involvement relationship, which can potentially yield benefits, but will do so with the requirement of larger investment. The other type of relationship is the low-involvement relationship, which has a lower potential for benefits, but the cost is lower compared to high-involvement relationships.

Figure 2

Supplier categorization according to specific investments



Note. Originally from Bensaou (1999)

2.2.2 Differences in Relationships within the Portfolio

Bensaou (1999) describe how different types of relationships are likely to appear as a result of three different factors. These factors are the product technology, the competitive conditions in the upstream market, and the capabilities of the suppliers available. However, these factors only affect the type of relationship present. The success of the relationship depends on a set of several factors. It can therefore be necessary to differentiate between factors qualifying a supplier for a strategic partnership and factors to be adjusted for the successful governance of the relationship. Bensaou (1999) also argues that the resources put on a relationship should be balanced with the demands of the relationship.

However, some authors have argued that viewing relationships through a purely dyadic lens might lead to missing some important aspects. Dubois & Pedersen (2002) explains that analyzing relationships between two actors based on their inter-firm exchange can result in not seeing the effects other relationships have on the relationship in focus, as well as how the focal relationship affects other relationships. Therefore, taking a network view of the supply chain can be beneficial and lead to a more accurate picture.

2.2.3 Setup and Management of a Purchasing Portfolio

Wagner & Johnson (2004) present a process for setting up and managing a supplier portfolio. They divide this process into three different steps: *planning*, *implementation*, and *monitoring and control*. They explain that the planning step is important for the successful implementation of a portfolio strategy, and that it can be divided into two main parts. These steps are first to decide which suppliers to include in the supplier base and then the optimal strategy for individual supplier relationships (Wagner & Johnson, 2004). For the first step, which suppliers to include in the supplier base, the central point is to evaluate current and future strengths of the suppliers and compare them to the current and future need of the buying company (Wagner & Johnson, 2004). Both cross-functional teams and top management involvement are beneficial in the planning step; the objectives set by top management guide the process (Wagner & Johnson, 2004). Wagner & Johnson (2004) also highlight that supplier roadmaps can assist the buying company in seeing how compatible a supplier is with the organization’s development.

Wagner & Johnson (2004) divide the implementation step into three different parts: *configuration of the supplier base*, *supplier development*, and *integration of suppliers.* For many companies the configuration of the supplier base will include decreasing the number of suppliers that they are working with (Wagner & Johnson, 2004). According to Wagner & Johnson (2004, p. 720), “Rising expectations of suppliers, changing product strategies, and the advent of supplier networks mean that companies now work more intensively with fewer suppliers.” This increased reliance on a few suppliers can lead to increased performance, which can be in the form of increased innovation and suppliers having a more long-term perspective when making decisions. The companies that Wagner & Johnson (2004) investigated used the segmentation of supplier as the first step in the implementation step. Other activities listed as typical for the implementation step are reducing the number of, assessing, and selecting suppliers. Wagner & Johnson (2004) describe how forming partnerships can be a way to safeguard against the risk of relying heavily on a supplier. Wagner & Johnson (2004) note that the type of arrangement that buying firms tend to have with suppliers varies depending on the type of items that are sourced. For standardized items that are not critical to the company, an arm’s length type of relationship is suitable. For more non-standardized items that are central to the strategic goals of the company, more partnership-type relationships are often present.

According to Wagner & Johnson (2004), supplier development can be used when the supplier performance does not match the needs of today or tomorrow. They contrast this activity with termination or acquisition, which they think are more drastic choices and does not always lead to the intended result, as well as not always being possible actions to take. Wagner & Johnson (2004) explain that being process-oriented instead of results-oriented when working with supplier development is more effective for making the intended changes. The reason for this is that the suppliers receive freedom in making their own choices.

Wagner & Johnson (2004) describe integration of a supplier as the merging of supplier and buyer resources and activities. The integration of suppliers can be divided into two steps: “First, in the product development phase, buyers and suppliers jointly create innovative and market-oriented products. Second, in the subsequent manufacturing phase, suppliers are closely incorporated in efforts to continuously enhance effectiveness and efficiency in production and logistics processes.” (Wagner & Johnson, 2004, p. 725). When introducing supplier integration in product development, Wagner & Johnson (2004) argue that early involvement of a supplier can increase its feelings of ownership and responsibility. For the integration to succeed, the purchasing department needs to be actively engaged in product development and the parameters of the collaboration. As examples of benefits with this integration strategy, Wagner & Johnson (2004) list the gain of new competencies, sharing of risks and quicker entry into new markets.

The final step in the framework introduced by Wagner & Johnson (2004) is about strategic supplier portfolio monitoring and control, which should be based on what's been established in the planning step. It is important that the monitoring of the relationships is based on what the goals are, and also include early warnings if things are starting to go in another way than the intended one. These monitoring systems could both measure outputs and measure behaviors. It is also beneficial if the monitoring systems have some flexibility in them that enables managers and other decision makers to deal with unexpected situations. According to Wagner & Johnson (2004) the monitoring and control systems need to both track "positive" and "negative" deviations. While negative deviations can get a lot of attention because this means that something has gone wrong, positive deviations also need to receive attention and their causes understood, as this can be a great learning experience and assist in making the relationship even better.

2.3 Supplier Interfaces and Interaction

Interacting with suppliers occupies resources and valuable time for the buying company, as well as for the supplier. This necessitate using the right interfaces and ways of communicating, for maintaining and developing the relationship in the desired direction. This chapter includes the following parts: Supplier interfaces, Interaction according to the type of service, Network's effect on buyer-supplier relationships.

2.3.1 Supplier Interfaces

The way that buyers interact with suppliers has changed over the years, starting in the 1970s (Araujo, Gadde, & Dubois, 2016). The development has gone from viewing arms-length relationships as the best solution towards seeing collaborative relationships as having potential to be more beneficial. According to Gadde & Snehota (2019), using more extensive relationships requires understanding the changing context and the managerial issues associated with it. Gadde & Snehota (2019) also acknowledge that the potential benefits from closer relationships are widely accepted, and that three aspects need to be considered for realizing these opportunities: the interaction process, network interdependencies, and supplier relationship dynamics. Araujo et al. (2016) present a typology of supplier interfaces with four different categories. The different types of supplier interfaces are called standardized interfaces, specified interfaces, translation interfaces, and interactive interfaces.

Standardized interfaces are situations where the buyer and supplier doesn't have to make any special adjustment for the transaction, and standard products or commodities are exchanged (Araujo, Gadde, & Dubois, 2016). The buying company are also able to easily switch suppliers. For this type of interface simple and cost-efficient transactions are the goal (Araujo, Gadde, & Dubois, 2016). According to Araujo et al. (2016), in specified interfaces the suppliers are used as a production resource, making components according to specification sent by the buyer. When the buyer gives functional metrics and prescriptions for the ordered product or service, but the supplier is free to use its resources the way they best see fit to fulfill the orders, we have a translation interface (Araujo, Gadde, & Dubois, 2016). According to Araujo et al. (2016), this interface can give rise to increased possibilities for economies of scale and scope compared to specified interfaces. Interactive interfaces are about close-collaboration and putting resources aside for the relationship, for potential gains in productivity and effort (Araujo, Gadde, & Dubois, 2016).

Araujo et al. (2016) highlight that the development and maintenance of translation and interactive interfaces are very resources intensive. To be successful with these kinds of close-collaboration type interfaces, organizations need to be selective and restrictive in the number of suppliers they're engaging with in this kind of way. This is especially true for the potential of learning by partaking in a closer relationship (Araujo, Gadde, & Dubois, 2016). However, in a study about marketing of services, Baptista et al. (2022) noted that customers tend to rely on and involve suppliers in production and implementation to a greater degree as trust and mutual knowledge was developed. Ryu et al. (2009) argues that trust develops by successful interaction on an operational level over the long-term. There might therefore be a time aspect to when interfaces that rely more on a supplier can be deemed appropriate. Also, the resource intensiveness of closer relationships means that an organization needs to be able to use all types of interfaces, since the relationships with different suppliers will have different requirements. This means that both lower- and higher-involvement relationships need to be used for proper allocation of constrained resources (Araujo, Gadde, & Dubois, 2016). Araujo et al. (2016) describe how increased specialization and technological complexity means that companies must increasingly rely on suppliers, which further necessitates skills and knowledge in how these relationships should be managed. Also, they argue that a more dynamic view of products is warranted. Araujo et al. (2016) argue that products should be viewed in a more dynamic perspective as the result of buyer-supplier interactions, and not as only something static involved in an exchange.

Araujo et al. (2016) describe how the use of interfaces can depend on the company's technology strategy, which they divide into three different considerations. The first issue is whether the organization should make and develop something themselves or rely on outside sources. The second issue is whether the company strives to be a technology leader or a technology follower. The third consideration is about how much of the development should be the result of joint-development efforts. If a company decides to outsource the development or production of a component, they will have to engage with them in some way. The proper interface to apply depends on the second and third issue. Araujo et al. (2016) explain how the use of a standardized or specific interface does not automatically comply with either technology leadership or followship. They are both more passive, although the specific interface entails some more activity, since it requires knowledge about the supplier's production resources (Araujo, Gadde, & Dubois, 2016).

When a company pursues a technology follower strategy, a translational interface is usually a good fit (Araujo, Gadde, & Dubois, 2016). In that situation the buying company uses the supplier's knowledge and innovations to fulfill their own functional demands (Araujo, Gadde, & Dubois, 2016). This means that they are using already existing knowledge from the supplier. According to Araujo et al. (2016), there is an exchange of knowledge from the supplier to the buyer and some integration. If a company wants to take on a technology leadership role, an interactive interface is suitable (Araujo, Gadde, & Dubois, 2016). Araujo et al. (2016) points out automotive OEMs as a class of companies that sometimes collaborate with suppliers to invent new technology, and by that take a leadership position. For the buying company to maintain its leadership position, it is important that the supplier's knowledge is integrated into the buying company (Araujo, Gadde, & Dubois, 2016).

Araujo et al. (2016) argues that cross-functional teams and internal integration are pre-requisites for successful external integration and relationships with mutual exchanges. This is because integration with another organizational entity requires knowledge in different fields, and this knowledge is held by different persons and present in different functions. For example, when working in a specification or translation interfaces, integration with other functions is needed for purchasing to be able to develop and give the correct guidelines to suppliers, and for functional interfaces this might also extend into cross-organizational teams (Araujo, Gadde, & Dubois, 2016). In interactive interfaces cross-corporate teams are also beneficial, and there can be benefits in trying to foster collaboration among suppliers to leverage the knowledge and resources of the entire network of suppliers (Araujo, Gadde, & Dubois, 2016).

2.3.2 Interaction According to the Type of Service

Van Der Valk et al. (2009) describe four different types of service exchange relationships, based on the type of service that is in focus. The four types of services are: component services, semi-manufactured services, instrumental services, and consumption services. Component services are delivered to the end customer from the buyer without any transformation taking place, while the semi-manufactured services are partly transformed before being delivered to the end-customer (Van Der Valk, Wynstra, & Axelsson, 2009). Both component and semi-manufactured services are meant to be delivered to an end-customer, while instrumental and consumption services are meant for internal use for the buyer. Because of our focus on services to be consumed internally by Volvo, instrumental and consumption services will be more of a focus. Instrumental services affect the company's primary processes, and consumption services affect non-primary processes (Van Der Valk, Wynstra, & Axelsson, 2009).

Van Der Valk et al. (2009) further elaborate by stating that the key objectives for instrumental and consumption services are to get the desired change in the buying company's resources and delivering process that supports an organization's primary tasks, respectively. Van Der Valk et al. (2009) state the following factors as important for successful relationships regarding instrumental services: that business development representatives from the buyer side and product specialists from the supplier side are involved in the interaction, that suppliers are knowledgeable in business and process development, that buyers are knowledgeable in implementation and good at translating internal customer demands, that there is an adequate information exchange regarding the service's effect on primary process, and that adaptions for handling sensitive information are taking place. For IT services, product specialists can be software developers and hardware engineers. For consumption services, Van Der Valk et al. (2009) state the following factors as important: that internal customers of the buyer and product specialist from the supplier are having a lot of input, that the buyer does a great job of transacting internal customer demands, and finding ways of lessening the administrative workload is an important topic of communication. Van Der Valk et al. (2009) also note that for both instrumental and consumption services the marketing department at the supplier side are involved, however this is the case of all different types of services. Van Der Valk et al. (2009) highlight the importance for the buying company to translate the internal customer demands when buying instrumental and consumption services. This is in line with Araujo et al. (2016), who argue that internal integration and communication are paramount when a purchasing situation relies more on the supplier's own innovation and knowledge, to present them with accurate and required information. One important aspect of benefiting from closer relationships with suppliers can therefore be to have ample internal coordination, so that the supplier has the necessary information to fulfill the true customer demand. This relies on the principle of viewing the relationship as mutual, presented by Gadde & Snehota (2019) as not having one party controlling the interaction, which some literature suggests, but instead focusing on joint integration. They describe that this joint coordination is paramount for exploiting the supplier's resources, and will lead to less constrained communication, more learning, and the freedom for the suppliers to leverage their resources in the best way.

Further elaborating on the topic of interaction in supplier-buyer relationships, Gadde & Snehota (2019) state that for an actor who wants more out of a relationships extensive interaction is necessary, and there should be transparency around crucial information. For the external communication to be successful, it is also important to have ample internal communication and inter-firm relationships (Gadde & Snehota, 2019). An open discussion climate is also highlighted as important. The authors furthermore note that there is uncertainty around deeper relationships since the benefits and costs cannot be accurately mapped from the outset.

2.3.3 Network's Effect on Buyer-Supplier Relationships

Moving on from only focusing on the dyadic aspects of a relationship, Gadde & Snehota (2019) explain that the relationship will be dependent on what is happening in the network of the two parties. Interactive processes affecting the focal relationship can both be between one of the parties and a third-party, or between two actors without any direct linkage between the two parties in the focal relationship. According to Araujo et al. (2016), there are two types of learning that can take place within a relationship: direct learning and indirect learning. Direct learning is knowledge that is created and exchanged between the two actors in the focal relationships, while indirect learning is knowledge that is created in a relationship between one of the actors and a third party. Gadde & Snehota (2019) argue that both types of learning are important, and that the indirect learning that a supplier has available can be an important factor for the success of the focal relationship. Indirect learning constitutes a lot of the skills and knowledge that supplier's offerings are based on. Requesting solutions that does not require a lot of customization can be a way to leverage the indirect learning that the supplier has gathered, however it is still beneficial to exert effort to become a preferred buyer (Gadde & Snehota, 2019). Having a network viewpoint also entails a better understanding of the possibilities in combining the resources of different suppliers in an integrative way for achieving larger benefits then when purely focusing on dyadic relationships (Gadde & Snehota, 2019). Analyzing relationships as a triad and taking a third-party actor into account can expand the ability to see how the network as a whole can contribute to the buyer's business (Gadde & Snehota, 2019).

According to Gadde & Snehota (2019), the performance of a relationship is most dependent on the dynamics in the network and interaction pattern of the two parties. Examples of dynamics are changes in the demand of the buyer or changes in the supplier's resources (Gadde & Snehota, 2019). The authors describe that dealing with change is important and that success in handling change often comes down to being integrated with the other party. They also highlight the importance of management taking initiatives for this integration to take place, as it is often formal in the beginning but becomes increasingly informal as the relationship goes on.

2.4 Managing Partnerships in Supply Chains

Partnerships in various forms have a long history in industrial settings. In this chapter certain aspects of managing such partnerships will be described, with a focus on experiences from the automotive industry. The chapter constitutes of the following parts: Trust, commitment, and their emergence, Partnerships within the automotive industry, Principles for partnership management from Japanese automotive companies, Success factors and the risk of deterioration, Ways to mitigate the risk of relationship deterioration.

2.4.1 Trust, Commitment, and their Emergence

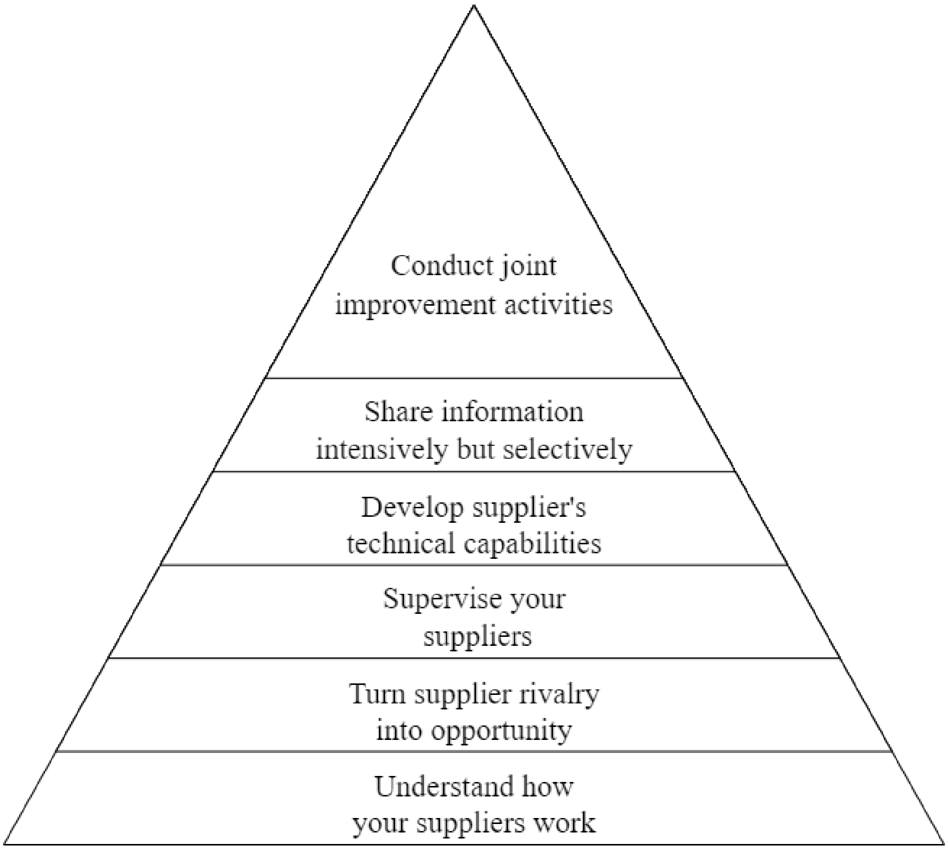
Ryu et al. (2009) present a viewpoint where partnerships are defined as a commitment to one another from both of the parties in a relationship. This view is similar but different to the one presented by Bensaou (1999), both explain the importance of mutuality for the relationship to be a partnership. However, Bensaou (1999) is more explicit in that this mutuality should be manifested in specific investments, while Ryu et al. (2009) are vaguer in what the commitment should entail. Ryu et al. (2009) describe commitment as changing behavior to fulfill the needs of the other party. They also cite Mohr & Spekman (1994), that describe key success factors for a partnership, which are commitment, trust, and collaboration behavioral process. In their paper, Mohr & Spekman (1994) describe these factors more thoroughly, calling them commitment, coordination, and trust; communication quality and participation; and the conflict resolution technique of joint problem solving. Ryu et al. (2009) describe a framework for strategic partnership, which use the factors commitment, trust, and collaboration as mediating variables, to explain how strategic and operational factors affect the supply chain partnership performance. Strategic and operational level factors can influence the performance of a partnership in different ways (Ryu, So, & Koo, 2009). Strategic factors influence commitment, while operational factors influence trust (Ryu, So, & Koo, 2009). According to Ryu et al. (2009) the reason for this is that commitment is the result of short-term strategic decisions by top management, while trust is the product of long-term relationships which take place at the operational level. The trust variable can then in turn influence commitment, so even operational level factors have an indirect effect on commitment (Ryu, So, & Koo, 2009). Commitment and trust then together influence collaboration, which is the variable which directly affects supply chain performance. Ryu et al. (2009) highlight the importance of both a collaboration strategy and organizational compatibility.

2.4.2 Partnerships within the Automotive Industry

Supplier-buyer relationships characterized as partnerships have long been part of the daily business for some actors in the automotive industry. For example, Liker & Choi (2004), describe how Toyota and Honda managed their partnership-level relations differently compared to their American counterparts. This contributed to better long-term innovation as well as cost reductions (Liker & Choi, 2004). According to Bensaou (1999), partnerships within automotive was no more common in Japanese companies compared to American companies. This indicates that not all supply chain relations necessarily have to be partnerships, and it points to the importance of correct governance to really benefit from a partnership. Liker & Choi (2004) describe a situation where many companies have a very combative attitude towards their suppliers, something which can hinder the possibilities to leverage a closer relation. However, Liker & Choi (2004) explain that this does not mean that a laissez-faire attitude towards suppliers is always the best option, but rather the careful and steadfast guidance to help the supplier become better. For managing partnerships, Liker & Choi (2004) highlight six main principles: Understand how your suppliers work, Turn supplier rivalry into opportunity, Supervise your suppliers, Develop supplier’s technical capabilities, Share information intensively but selectively, and Conduct joint improvement activities. These elements are structured in a hierarchy, above listed from the bottom to the top, and each previous element lays the foundation for the next one. The hierarchy is illustrated in Figure 3. To really get maximum benefit, Liker & Choi (2004) emphasize the importance of all elements being present, not just one or two.

Figure 3

The supplier-partnering hierarchy



Note. Originally from Liker & Choi (2004)

2.4.3 Principles for Partnership Management from Japanese Automotive Companies

Understanding how suppliers work lays the foundation for the partnership. Liker & Choi (2004) describe how Toyota before entering a partnership often have engineers or other staff present at the potential supplier in order to assess the suitability of the supplier and potential for things to improve if qualified for a partnership. Also, all managers are expected to study their suppliers extensively. This principle is closely connected to the term Gemba, which highlights the importance of being at the actual location. Gemba is also a term that highlights the importance of seeing something with your own eyes, and not relying on secondhand information, to fully understand a problem or situation (Liker, 2004).

The next step is to turn supplier rivalry into opportunity. Liker & Choi (2004) describe how the Japanese companies used as examples often have two to three suppliers for each component, while the typical American company have many more. The suppliers for Toyota and Honda still must compete, however the setting is a bit different. The difference is that American companies often make suppliers compete and then only do business with the one winner (Liker & Choi, 2004). The Japanese companies also create competition, but always include their present suppliers in the delivery of the new component. Liker & Choi (2004) gives the example of Toyota and one of its suppliers of seats, Johnson Controls. To add competition, Toyota and Johnson created a joint venture, which competed for orders with the original manufacturer. By doing this they had introduced an element of competition, while still making their current supplier a winner because of their ownership of their competitor.

After this step in the Supplier-Partnering Hierarchy, the principle of supervising your suppliers follows. Liker & Choi (2004) describe how many American companies think that the trust and importance Japanese companies put on their suppliers means that they take a hands-off approach and leave them alone to perform the work. Nothing could be further from the truth; they get very involved in the operations of their suppliers and expect them to engage with the same commitment. One example of this is Honda’s practice of sending reports to be filled out by the suppliers every month, while many of their competitors only send reports like this annually or bi-annually (Liker & Choi, 2004). Also, if problems arise in the suppliers’ operations, they receive help from the buyer company, both in the form of engineers to help with the search of the cause and attention from managers (Liker & Choi, 2004). It is in these conversations that the suppliers are expected to be well informed about the problem, even managers who might not be used to discussing at this level of detail.

Developing compatible technical abilities follows as the next level in the hierarchy. Liker & Choi (2004) explains how suppliers can be seen as an important source of innovation, and not merely an actor that should focus on cost-cutting above all else. The authors explain how the Japanese companies used as example barely have suppliers in low-wage countries, and contrast this to American companies which use lower-wage suppliers much more frequently. But cutting costs with the means of low wages is not enough when suppliers can be part of the innovation puzzle. For instance, Toyota and Honda have guest engineer programs, where suppliers’ engineers spend a couple of years at the buyer company to learn more about their process and way of developing products (Liker & Choi, 2004). Another example is helping suppliers with setting up the proper data collection systems (Liker & Choi, 2004).

Next on our list is to share information intensively but selectively with suppliers. Liker & Choi (2004) use Chrysler as an example of a company who thought that sharing a lot of information by itself would create a fruitful partnership. Japanese companies on the other hand believe in great communication, but that the shared information should have a purpose. According to Liker & Choi (2004, p. 9), "The two Japanese companies know that sharing a lot of information with everyone ensures that no one will have the right information when it's needed." This principle extends to top-management meetings, of which there only is one every year. This meeting is reserved for strategic issues only and involves the alignment of the strategic direction of buyer and supplier.

The last and final principle in the hierarchy is to conduct joint improvement activities (Liker & Choi, 2004). Toyota and Honda are both known for helping their suppliers improve their operations, which will lead to improvements in e.g., quality and costs. Liker & Choi (2004) explain that part of the cost-savings will go to the buyer company, but that the supplier also takes a share of the cost-savings. It also benefits the supplier in their other relationships. One practical implementation of this principle is that Honda has engineers stationed at their suppliers during a 13 weeklong developmental program, and that the engineers keep in touch with the suppliers long after the program is finished (Liker & Choi, 2004). Another one is that suppliers of Toyota will learn the method of the Toyota Productions system (Liker & Choi, 2004). These initiatives have led suppliers to become even better, which benefits both parties in the partnership.

2.4.4 Success Factors and the Risk of Deterioration

There are also other views on partnership, which acknowledge that they can be highly beneficial, but also pose risks for the involved parties. Anderson & Jap (2005) describe that the same factors that can make a partnership successful can also lead to its deterioration if not managed properly. The factors for success according to Anderson & Jap (2005) are, immediate benefits, strong interpersonal relationships, and unique processes and adaptations. They also highlight that close relationships and good relationships are not necessarily the same thing. As an example, they cite figures explaining that 30-50% of all joint ventures fail. In general terms, they argue that the characteristics put in place for the relationship to succeed can be the weak link which ultimately leads it to failure. Anderson & Jap (2005) describe a case where one of the parties invested a lot of resources into the relation to benefit the other party. This created a high level of trust in the other party, which could later be used to not follow the agreement, because the built-up trust meant that they were not controlled as rigorously by their counterpart.

Anderson & Jap (2005) describe three different factors that are important for success but can also deteriorate the relationship if not handled properly. They are *Immediate Benefits*, *Strong Interpersonal Relationships*, and *Unique Processes and Adaptions.* Anderson & Jap (2005) describe how the trade-off between short-term and long-term benefits is something that needs to be balanced in a partnership. Having too much of a short-term focus can lead the partners to exploit each other for quick gains, while a long-term focus where benefits are not realized with some regularity can lead to decreased motivation to engage in the partnership. Therefore, this balance must be monitored and considered throughout the relationship. When it comes to strong interpersonal relationships, Anderson & Jap (2005, s. 78) note that "Strong relationships create flexibility and a responsiveness that benefits the alliance". However, these strong relationships can also make it possible for one party to cheat the other one and cut corners in the activities of the relationship. They describe how the feeling of trust towards the other party can lead to being exploited and taken advantage of. Anderson & Jap (2005) uses the case of certain fund managers in the financial industry as an example of this, were the trust led to increased efficiency for the fund managers in handling their clients' finances, which some took advantage of to cheat their clients. Anderson & Jap (2005) explain that unique processes and adaptations are necessary for a partnership to be more fruitful compared to a "regular" relationship. The positive side of this is that partners will be able to experience more benefits by working together, but the lock-in this creates can give rise to missing opportunities elsewhere that would be even better. Anderson & Jap (2005) argue that this can lead to decreased rates of innovation. The authors describe a trade-off between being too flexible and being too rigid. According to Anderson & Jap (2005, s. 79), "If the relationship is too rigid,… …, the members are stifled; if the relationship is too flexible, the members may not achieve all the potential benefit that exists among them." The flexibility component of a relationship makes it possible for the counterparts to respond to change in its environment, while the rigidity makes parties have "skin in the game" and act though a lens of what is best for the relationship.

2.4.5 Ways to Mitigate the Risk of Relationship Deterioration

Anderson & Jap (2005) then give several ways to counteract the potential for things to go wrong in a partnership. These are *Evaluate Older Relationships*, *Focus on Profitability*, *Develop Backups*, *Take Mutual Hostages*, *Establish Common Goals*, and *Avoid the Spiral of Suspicion.*

Anderson & Jap (2005) argue that continually evaluating already established relationships is an important factor in keeping the initial goals and benefits for the relationship at the forefront. They highlight the risk of becoming complacent in the relationship, and that constant evaluation can keep this from happening. Anderson & Jap (2005) recommend that the focus of a relationship should be on profitability, and not only on revenue. They think that the profitability for each customer should be calculated, and that this can, for example, reduce the occurrence of customers demanding too low prices in exchange for their loyalty. Developing backups is important, and the key is to not let the relationships rest on the interpersonal connection between a few individuals. Instead, organizations should try to spread out the responsibility and involvement of the relationship on multiple actors. According to Anderson & Jap (2005, s. 80), "While this may appear inefficient and redundant, it can serve as a worthwhile safeguard." By focusing on the potential losses, companies can find the reason and motivation for engaging multiple individuals in a relationship; the responsibility of a relationship and its course should always be shared by a team of individuals. Taking mutual hostages describes the positive effect that specific investments can have on loyalty and incentive to work together (Anderson & Jap, 2005). Anderson & Jap (2005) describe mutual hostages as dedicated investments that are hard to use or cannot be used at all in other relationships. They also highlight the word "mutual" as investments must be made from both sides for the principle to work. To cite Anderson & Jap (2005, s. 80), "By developing mutual hostages, the partners create what economists call 'self-enforcing contracts' because each party loses an incentive to cheat the other and instead gains a powerful motive to stay in the relationship and make the most of it." It is also important to strike a balance between keeping tabs on the relationship and trusting the other party. With the principle of avoiding the spiral of suspicion, Anderson & Jap (2005) highlight that behavior guided by mistrust can spiral into behaviors that are not conducive to a beneficial partnership. As a practical example they described the case of General Motors and one of their suppliers. The supplier was the single source of car bodies, and General Motors argued that they were using this situation to charge higher prices, while the supplier argued that the prices were based on their costs as per the contract. Accusations and denial of misconduct exchanged hands back and forth for some time, until General Motors acquired the supplier, only to find out it had never exploited the situation to begin with.

They also describe two factors for handling problems arising in a partnership, which are *Capitalize on Your Personnel* and *Recovering from Wounds.* Anderson & Jap (2005) describes how problems do not necessarily hurt good relationships, if they are solved and handled constructively. By capitalizing on your personnel, and more specifically using other staff than those usually involved in the relationship, you have people without the baggage of the problems bringing in new perspectives and energy. Individual salespeople can also have a large impact in repairing a relationship and regaining the positive perspective of the other part (Anderson & Jap, 2005). Also, problems in a partnership might mean that they need to be reconfigured or that a partnership might not be necessary, and that a more distant and transactional relationship will be more appropriate. According to Anderson & Jap (2005, s. 81), ways of reconfiguring a relationship can be done by "…restarting the partnership, redefining the scope and responsibilities, investing or changing personnel." However, they explain the importance of cutting ties with the other party if things are clearly not working and the two organizations are not compatible. They conclude by stating that relationships require attention and investment, as well as safeguards to make sure that the very things required to make the partnership fruitful do not cause deterioration.

2.5 Power Relation Between Buyer and Supplier

In any relationship there will be a certain power balance between the parties, and this balance can influence how the relationship will look like. There is also the risk of opportunism in any buyer-supplier relationship, however there are ways to mitigate the risk of these issues damaging the relationship. The chapter starts with Power bases and gaining interest with suppliers, followed by Opportunism and performance-based contracting.

2.5.1 Power Bases and Gaining Interest with Suppliers

Brito & Miguel (2017) use six different power bases, evenly divided into the two categories mediated (reward, coercion, and legal legitimate) and nonmediated (expert, referent, and legitimate), to describe different power relations. Reward and coercion refer to the fact that the stronger partner can reward the weaker partner when it acts the desired way and punish if it does not. Legal legitimate is when the stronger partner has judiciary rights to influence the weaker partner. For the nonmediated bases, expert is the situation where the weaker partner seeks expertise and knowledge that the stronger possesses, while referent is when the weaker wants to be identified with the stronger partner. Lastly, legitimate is the situation where the weaker partner believes that the stronger one has natural or legal right to take the leading role. The noncoercive bases (reward and the nonmediated) are affecting the relationship and the performance of it in a positive way, while the other ones (coercive) have the opposite effect (Brito & Miguel, 2017; Gelderman, Semeijn, & De Zoete, 2008).

The case companies in the article by Brito & Miguel (2017) were from the food & bewerage and personal care & cosmetics industries, with interviews with buyers that always were the stronger partner, and suppliers of primarily goods, not services. These details should be kept in mind when disucussing the content of their paper. The authors noticed that the buyers emphasised control mechanisms and kept suppliers at an arms-length distance, while the suppliers focused more on trust and commitment, trying to build long and close relationships. Opportunism, withholding information, unclear communication, and buerucratic procedures is damaging for the relationship and rasies suspision between the partners (Brito & Miguel, 2017).

Using multiple suppliers is a strategy for both mitigating the risks with only relying on one and getting the best price, raising competition between suppliers, using strategic suppliers was only done when the buyers had to, since it invloved more risk and demanded more effort from the buying organization (Brito & Miguel, 2017). For the suppliers, the buyers strategy of avoiding closer collaboration and hard negotiation was accepted, since they wanted the sale, but it was not seen as something positive for the longevity of the relationship (Brito & Miguel, 2017).

Christiansen & Maltz (2002) studied three Danish companies that managed to become what they call "interesting customers", despite not offering the biggest volumes for their suppliers. The authors highlight three aspects that are important in order to create a strong relationship with a powerful supplier: "(1) Realization by the buyer that something other than volume has to be in place to make the relationship attractive in the long term. (2) Commitment to innovation and mutual knowledge transfer between buyer and supplier. (3) Recognition that purchasing is the appropriate function to institute, structure and manage the long-term relationship with key suppliers." (Christiansen & Maltz, 2002, p. 179). Leverage core competencies & strengthen the supplier's strategic position, knowledge acquisition, and penetrate new markets & increase sales with the help of the customer are some of the benefits for the supplier seen in the study and that can be of relevance for this thesis. The role and competence of the purchasing function is emphasized and plays a key role in establishing connections within the company and towards the supplier, supplier selection, and ensuring a long-term focus and commitment with the supplier (Christiansen & Maltz, 2002). The focus for the three companies was on risk sharing and knowledge transfer, not on negotiation.

2.5.2 Opportunism and Performance-Based Contracting

In any relationship there is a risk of opportunism by one or several of the partners in said relationship according to Caniëls & Gelderman (2010) who studied the effect on opportunism of administrative control (legal contracts), power, and relational norms, in buyer-supplier relationships. For describing opportunism, the authors use the definition of Williamson (1975, p. 6) “self interest seeking with guile”, which can range from small violations of contractual agreements to stealing. What Caniëls & Gelderman (2010) found was that relational norms had the best safeguarding effect towards opportunism, the dimensions of relational norms that were studied were flexibility, solidarity, and information exchange, with flexibility and solidarity having the largest effect. Power also protected from opportunism, but only if the stronger party did not use the power in a coercive and opportunistic way (Caniëls & Gelderman, 2010). A stronger party missusing their power would often lead to opportunistic behaviour in the weaker party aswell. The study shows that there can be well functioning and collaborative relationships despite power assymetry between the parties, but only if the power position is not exploited. Caniëls & Gelderman (2010) also showed that the amount of opportunism in a relationship is matched by the parties, if one show more opportunism the other will follow, and different levels of opportunism can be regardeed as “normal” in different relationships.

Selviaridis & Wynstra (2015) look upon the topic of performance-based contracting (PBC) in their paper, and risk sharing is one of the incentives behind using this approach. In its simplest form, PBC is a contractual approach where a part of or the full payment to the supplier is tied to performance. PBC put a bigger emphasis on outputs and outcomes, rather than inputs and activities, allowing better alignment of goals and incentives (Selviaridis & Wynstra, 2015). As mentioned above, increased risk, but also potential reward, for the supplier is another benefit of PBC. PBC also emphasizes co-production and closer collaboration for achieving the desired outcomes, together in the buyer-supplier relationship (Selviaridis & Wynstra, 2015). The authors also note that data collection and measurability must be taken into consideration when using performance-based contracting.

2.6 Organizational Structure and Strategy

Akın Ateş et al. (2018) describe how different structures within organizations can lead to differences in performance. They list cost performance and innovation performance as two identified and common strategic objectives of purchasing. Cost performance is about decreasing the unit price and total cost of ownership, improving efficiency, and increasing asset utilization (Akın Ateş, van Raaij, & Wynstra, 2018). An innovation strategy concerns itself with improving quality, specifications and functionality, introduction rates and timing of new products and services (Akın Ateş, van Raaij, & Wynstra, 2018). Akın Ateş et al. (2018) also describe the variables of formalization, centralization, and cross-functionality. According to Akın Ateş et al. (2018, s. 70), "Formalization is defined as the degree to which an organization emphasizes following rules and procedures", "Centralization is defined as the degree to which decision making authority and power are concentrated at the top as opposed to delegating these to lower level management", and "cross-functionality is defined as the gathering of people from different functions of an organization for effective delivery of a common organizational objective." They concluded that for innovation performance, a structure with low formalization, low centralization and high cross-functionality is beneficial. For cost performance an organizational structure with high formalization, high centralization and low cross-functionality is suitable. Akın Ateş et al. (2018) argues that the same organization can use both strategies for different segments of their purchasing activities, using the cost performance strategy for low-risk items and an innovation strategy for items with key functionalities in the final offer towards customers. Akın Ateş et al. (2018) argues that the association that can be seen between a structure that fits strategy and good purchasing performance, is due to efficiency and aligned processes, or vice versa, a misfit leads to inefficiencies and misaligned processes.

2.7 Total Cost of Ownership

Total Cost of Ownership (TCO) is a cost management and purchasing tool used to better understand the different costs when buying goods or services from a supplier (Ellram & Siferd, 1998; Ellram, 1995). Wagner & Johnson (2004) argues that the use of the TCO concept can be highly beneficial for the purchasing function, and that this can help the company keep its costs down. TCO models are not meant to fully reflect reality, as this will make them far too complex, but to provide a better foundation for decision making, not solely focusing on the purchase price, but also other costs, such as sourcing and maintenance costs. It should be mentioned that there are other similar approaches, but TCO is the most well-established in literature and practice, and that there are a vast number of different ways TCO models are built (Ellram, 1995). There are of course some aspects of TCO that militate against its use, there are often a lack of data, leading to greater uncertainty in the model, and costs are often situation specific, demanding more expertise and knowledge from the people using the TCO tool (Ellram, 1995). However, the benefits of the TCO approach are many, some of which are the following Ellram (1995, pp. 7-8):

- Consistency in evaluating suppliers
- Clarifies expectations for both parties
- Data for negotiations
- Better understanding of the supplier's issues and costs
- Highlights potential cost savings

Ellram (1995) also note the importance and potential of using a TCO model for both selection and evaluation of existing suppliers. This will allow the buyer to compare the expended TCO with the current development of the supplier-buyer relationship, but also identify improvement areas.

A TCO model used for cloud computing services is put forth in the article by Walterbusch et al. (2012). They identify the different stages of the service, from initiation to operation and finally a potential dissolution, accompanied by the various types of costs during the stages. With often low material costs and high flexibility in these types of purchases, there are sometimes a lack of analysis prior to decision making, potentially resulting in hidden problems and unwanted lock-ins (Walterbusch, Martens, & Teuteberg, 2012), something that a TCO model can mitigate by systematically identifying important cost items.

2.8 Return on Investment

Expressing the value of an investment in monetary terms is often desired, and even required to get the initial investment or secure the continuation of a project (Van Solingen, 2004). According to Wagner & Johnson (2004), measuring the rate of return by a certain supplier or other alternative financial measures can assist in supplier portfolio management. Van Solingen (2004) suggest a pragmatic and practical approach for calculating ROI and argue that estimating benefits can be no more difficult than estimating costs, although this is not the general perception. He explains that the usual estimation of cost, approaching the cost's real value, can be used for estimating the value of the benefits and that using the help of the stakeholders for quantifying the value is a fruitful method. As Kaplan (1986) states, and quoted by Van Solingen (2004):

> Although intangible benefits may be difficult to quantify, there is no reason to value them at zero in a capital expenditure analysis. Zero is, after all, no less arbitrary than any other number. Conservative accountants who assign zero values to many intangible benefits prefer being precisely wrong to being vaguely right. Managers need not follow their example.

Dividing benefits into direct and indirect ones can help to show how the investment or project supports other strategic goals and for both categories it might be that a part of the total benefit should be allocated to the current case, say 25 percent (Van Solingen, 2004). In the cases presented by Van Solingen (2004) they asked the stakeholders to quantify the savings by either giving a range between a minimum and maximum value, or an imaginary purchase value if they had the possibility to buy the benefit in isolation. Next, they used the lowest values given by the stakeholders for the different benefits, giving a minimum ROI and not overestimate the benefits. Lastly, the author recommended reviewing the project and the ROI analysis regularly to aid communication and understanding of the associated costs and benefits.

2.9 Technology Roadmapping

Technology roadmapping is a tool used for supporting technology management within companies, exploring linkages, dependencies, and gaps, in relation to the organization and its technological resources, and the market (Phaal, Farrukh, & Probert, 2004). The layout of the technology roadmap is very flexible and often adjusted for companies and specific purposes, the graphical layout also aids communication and provides clarity. Although it is not an issue within the scope of this thesis, it should be noted that developing the roadmap can be a complex task, encompassing many interactions, and several companies state that keeping it updated is difficult (Phaal, Farrukh, & Probert, 2004). For this thesis, one factor that could justify a partnership with a supplier would be if their technology could be, now or in the future, valuable for Volvo and fill a gap in the technology roadmap.

3. Methodology

The following chapter will describe the methodology used for this thesis work. The first part covers the research strategy and design. Then the overall data collection and the primary method of semi-structured interviews are presented, and finally societal and ethical considerations are discussed.

3.1 Research Strategy and Design

According to Bell et al. (2019), there are three main ways in which the research process relates to theory. These are deductive, inductive, and abductive. A deductive process is described as testing hypothesis developed by existing theories, and then revising these theories based on the findings (Bell, Bryman, & Harley, 2019). Bell et al. (2019) describe an inductive approach as a process where the findings and observations will build the theory. There is also abductive reasoning, which according to Bell et al. (2019) is proposed by some researchers as a way to mitigate the weaknesses of the two previously mentioned approaches. Compared to inductive and deductive ways of carrying out research, the abductive approach is going back and forth between empirical findings and literature (Bell, Bryman, & Harley, 2019). Bell et al. (2019) highlights that these different categorizations of research are not clear-cut and set in stone but should rather be seen as tendencies in approaches to scientific projects. In this project, the researchers started by reading literature that seemed relevant for the topic in parallel with performing pilot interviews. Based on the combination of theory and initial empirical findings, another set of question for further interviews were developed that more specifically addressed areas of interest and concern. The researchers categorized this way of working as more of an inductive approach, since the literature was not used to develop clear hypotheses to be tested, but rather to gain an initial impression of the topic and as a source to be used for the discussion and recommendations. However, as theory was used as part of the base for developing further questions, a small part of deductive reasoning can be distinguished.

According to Bell et al. (2019), research strategies can be divided into qualitative and quantitative ones. This distinction is not exhaustive and there are many more ways, however this is a common way to distinguish between research strategies. Because we did not have clearly defined hypothesis or opportunities to gather large-N data, a quantitative study was unsuitable. We wanted to be able to explore the topic, and therefore choose qualitative interviewing, focusing on the interviewee’s experiences and acquired knowledge. However, some of the conclusions of the literature were based on quantitative studies.

Bell et al. (2019) mention several different research designs, which are the experimental design, cross-sectional design, longitudinal design, case study design, and the comparative design. Bell et al. (2019) describe how a case study is about researching a bounded entity, or in some instances different bounded entities for comparison between them. A case study can be used for a multitude of reasons, for example to falsifying a hypothesis, reveal something novel, or investigating everyday situations (Bell, Bryman, & Harley, 2019). This master’s thesis was carried out as a case study, focusing specifically on the case company and its supplier relationships. This was necessary to have a manageable scope of the project and making sure that the conclusions drawn are valid for the researched context of interest.

3.2 Data Collection

One group of employees interviewed were the vendor managers. They are the main contact point from Volvo IT Purchasing’s side towards the strategic suppliers. The main responsibility of the vendor managers is to, in broad terms, manage the relationship and make sure that it aligns with what Volvo need, and more specifically, arrange meetings with the supplier and stakeholders, contract negotiations, handle high level escalations, among other things.

The information and data collected helped with aligning the recommendations with what is already established within Volvo and fill potential gaps in their current way of working. It was also critical to understand how the people working with these issues today are currently working, in order to not develop recommendations that is out of scope and becomes useless for the people intended to use it. Digital and IT has acquired a lot of knowledge over the years and provided us with key insights into how to assess and manage IT suppliers. The literature provided us with plenty of recommendations, but to create the most value it had to be transformed into specific solutions for Volvo.

3.2.1 Semi-structured interviews

The interviews during this project were conducted with both employees of Volvo and with employees of their current strategic suppliers. Because these relationships are dyadic in nature and some literature highlights that buyer-supplier relationships are affected by both parties e.g., Bensaou (1999), garnering both viewpoints were important. One particular group of Volvo employees that were interviewed are the vendor managers, which have one or two strategic suppliers assigned each and a vital role in the buyer-supplier relationships at Volvo Digital & IT.

A semi-structure format was used for the interviews. According to Bell et al. (2019) semi-structured interviews can be viewed as being in the middle of a spectrum, with the unstructured interview in one end, and the structured interview-type in the other. Bell et al. (2019) describe that during a semi-structured interview an interview guide with questions is used, and most of the questions in the guide are asked to the interviewee. However, during the interview the interviewer is free to ask follow-up questions and pursue topics of interest that come up as a result of the respondent's answers (Bell, Bryman, & Harley, 2019). Since the topic had many intricacies, being able to explore each individual participants viewpoint was valuable in helping the researchers develop well-rounded recommendations. Because of the available literature on the topic, the researchers had the ability to write questions beforehand that could be used as a base in exploring the topic.

3.2.1.1 Semi-structured Pilot interviews

To get an initial grasp on what the work of the vendor managers looks like, semi-structured pilot interviews were conducted with them and other people who are knowledgeable about partnerships within Volvo. According to Bell et al. (2019) it is common to perform several interviews during qualitative research. The pilot interviews were held during the planning period, and the interviewees was interviewed in a slightly more structured way once the project scope was more accurately defined. The themes of the interviews revolved around their work tasks, challenges in their work, and their view on partnerships and how they are managed. The vendor managers' view on the current state of the relationships with strategic suppliers was also investigated. During these interviews we also put forward requests to see specific governance models for different suppliers. The questions that were prepared for the pilot interviews are found in appendix I. Five interviews with a total of six people were held and the duration of each interview was around 35-45 minutes.

3.2.1.2 Semi-structured Project interviews

Based on the information we gathered in the pilot interviews and the literature included under the framework-section, a set of questions around areas of interest were developed. The three main areas where partnerships in general, the specific relationship(s) between the supplier(s) and Volvo that the interviewee is involved in, and the role of the supplier or Volvo in partnerships in general. The questions under the theme partnerships in general centers around investigating factors that can impact how partnerships are developed and managed, and whether the end result will be successful. Questions on the specific relationship with Volvo or suppliers was asked to identify areas for improvement, and who are interacting in and influencing the relationship. There was also an interest to see how the interviewee viewed its own organization in partnerships within IT, without focus on any certain relationships, hence why it became one of the question-categories. In this category there was a lot of focus on questions regarding the value proposition that is presented during a buying process, and how the results of implementing an IT solution are followed up. The authors became interested in this after reading research papers on the topic and discussing the topic with our supervisors at Volvo.

One question that was asked during both the pilot and project interviews to our interviewees was how they would define a partnership. This question was developed in discussion with our supervisor at Chalmers and worked so well during the pilot-round of interviews that we kept it for the project interviews. The benefit we could see from this question was that it enabled the respondent to, in a very free and unstructured way, describe a partnership, and this description often led to them explaining the conditions for a successful partnership from their point of view. Because of this we opted to place the question as the first one in the project interviews, as we thought it would be a great opening question and make the respondent start reflecting right away. In total, eight interviews with nine different people were held. Two of the interviewees were with suppliers of Volvo Group. The authors' ambition was to interview additional supplier representatives; however, this was not possible.

3.2.2 Participant observation

During the project, the authors had the opportunity to participate and observe meetings concerning relationships with strategic suppliers. This part of the project was what Bell et al. (2019) describes as micro-ethnography. Bell et al. (2019) explains that in micro-ethnography, one part of an organization's culture is investigated. In our case this was the relationships with the strategic suppliers and the culture around those meetings. The aim to achieve with this method was to find patterns of behavior that might not have been explicitly stated in the interviews, and to study the content of the meetings. This could further the understanding of the topic in general and give rise to insights to be discussed during further interviews. According to Bell et al. (2019) researcher involvement in the observed work can be categorized as passive or active. However, these two categories exist on a continuum, where researchers can be more passive or more active. In this project, the researchers remained fairly passive during observations. This aided in keeping an outside perspective and were most feasible since the researchers were not part of the daily operations during the project. Notes were written down immediately upon observation, and no audio recording was used since it could interrupt the flow of conversations and invite hesitance of participants of the meeting. In total, three meetings were observed and participated in.

3.2.3 Literature review

Two main ways of performing a literature review is the systematic review and the narrative review (Bell, Bryman, & Harley, 2019). According to Bell et al. (2019), the systematic review involves specifying a clear question and a rigorous execution of the method. However, the narrative review enables the researcher to include a wider variety of studies without having a very specific research question, and thus develop an initial understanding of a topic. Bell et al. (2019) explain how the narrative review can be more suitable when using more of an inductive rather than deductive approach. It is because it can be harder to pre-define the parameters and concepts of the research projects in an inductive setting, as well as the approach requiring more flexibility in regard to the scope of the research area. As explained, this research project was carried out in a more inductive than deductive way. Therefore, the literature review that was conducted as part of the research project was of a more narrative character. Although a large part of the work related to the literature review took part in the early stages of the thesis, new articles were included throughout the project as new topics of interest arose.

Articles that would be suitable for the review were found in several different ways. Our supervisor at Chalmers, who has previous experience in the topic of relationships within supply chains, recommended some articles that could be of value to the thesis. From these articles new sources were found that could further contribute with knowledge. The authors also searched databases such as Google Scholar with keywords such as: Partnership, Supply Chain, IT, Services, ROI, Calculation, TCO, Relationships, and Portfolio Theory. As a first examination of potential articles to be included in the framework, the abstracts were read. If considered of interest, the whole articles were examined and included if the findings and topic were applicable to the thesis.

3.3 Societal and ethical considerations

Ethics are important in business research both from the viewpoint of protecting the individuals involved and the reputation of business research as a whole (Bell, Bryman, & Harley, 2019). Bell et al. (2019) highlight ethical considerations as something that should be maintained throughout the research project, as new situations arise. Ethics are not merely a checklist to review at the start of a project but should be an integral part of good research practice. According to Bell et al. (2019), there are four main ethical principles that researchers need to be mindful of. These ethical principles are Avoidance of Harm, Informed Consent, Privacy, and Preventing Deception. In addition to these main principles Bell et al. (2019) describe four other ethical and legal considerations, which are Data Management, Copyright, Reciprocity and Trust, and Affiliation and conflicts of interest.

Bell et al. (2019) describe the importance of avoiding harm for participants and the researcher. Examples of harm can be physical harm, stress, and harm to career prospects (Bell, Bryman, & Harley, 2019). However, they mention that in some newer schools of thought the researcher should also be mindful of and minimize instances of harm to non-participants in the research project. In this thesis project, stress and harm to career prospects were two possible harmful consequences of taking part. These possible harms are related to the interviews and meeting observations that were conducted. To avoid this, the researchers needed to make sure that participants felt well informed and comfortable with the goal of the research, and that issues around anonymity were resolved. Anonymity was secured by not using names of the interviewees or the associated suppliers. This ties in with the principle of informed consent. Informed consent means informing participants to the highest possible degree to make it possible for them to make a conscious decision to be part of the project (Bell, Bryman, & Harley, 2019). Bell et al. (2019) specifically mention that participants need to be informed if observation and recording techniques are to be used. Since both interviews and observations took place, this specific example is very relevant. The authors made sure that all participants in a meeting was informed about what the researcher was about and what the purpose was, and the same for the interviews performed. We asked each participant for permission before starting to record and auto-transcribe an interview, which every one of the interviewees agreed to.

4. Results

The results section is divided into Volvo's perspective and the suppliers' perspectives on each topic. In the chapter about Volvo's perspective, their current governance model is presented. This part is included to give a picture of how the current relationships with the strategic suppliers are managed. Then for both Volvo and the suppliers, the results from the interviews are divided into the following themes: Defining a partnership, Organizational Factors and Trust, Relationship Management and Governance Model, Specific Relationships with Suppliers, and Value Proposition Presentation and Follow-up.

4.1 Volvo Group's perspective

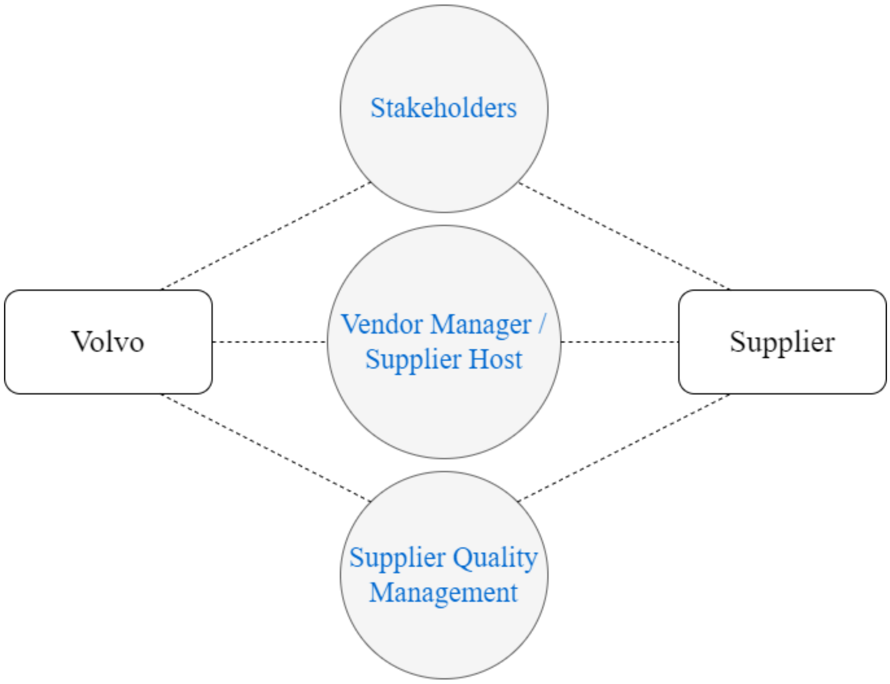
Most of the results in this part comes from the vendor managers and supplier hosts, who play a pivotal role in the strategic supplier relationships within Digital & IT. The current supplier categorization and governance model used by Volvo Group is first presented, followed by the rest of the results structured in the way described above.

4.1.1 Volvo Group's current IT supplier categorization and governance model

There are four main parties in the Volvo Group IT governance model besides Volvo themselves: Stakeholders, Vendor Manager/Supplier Host, Supplier, and SQM (Supplier Quality Management). The parties are illustrated in Figure 4. Stakeholders are people representing the business side, directly impacted by the performance of the IT Supplier. SQM takes on a more objective role and performs audits, risk analyses, and evaluates the supplier's performance. The VM, or Supplier Host, plays a central role in the relationship, implementing the governance model and being the main contact point for the supplier, among other things. For "Strategic" suppliers, and in some cases "Key" suppliers, they also have a sponsor, representing the Volvo Group towards the supplier's executive team, promotes and take business decisions for the group, and is the highest escalation level in the governance model.

Figure 4

The main parties involved in the governance model by Volvo



The categorization of IT Suppliers is based on the following six criteria:

- Dependency – Is the supplier easily replaced? (Cost of switching)
- Current spend level
- Future intended spend level
- Alignment – Is the supplier aligned with Volvo's strategic goals?
- Scope – In terms of geography, function, and capacity of the supplier
- Value – Does Volvo derive additional value from using this supplier?

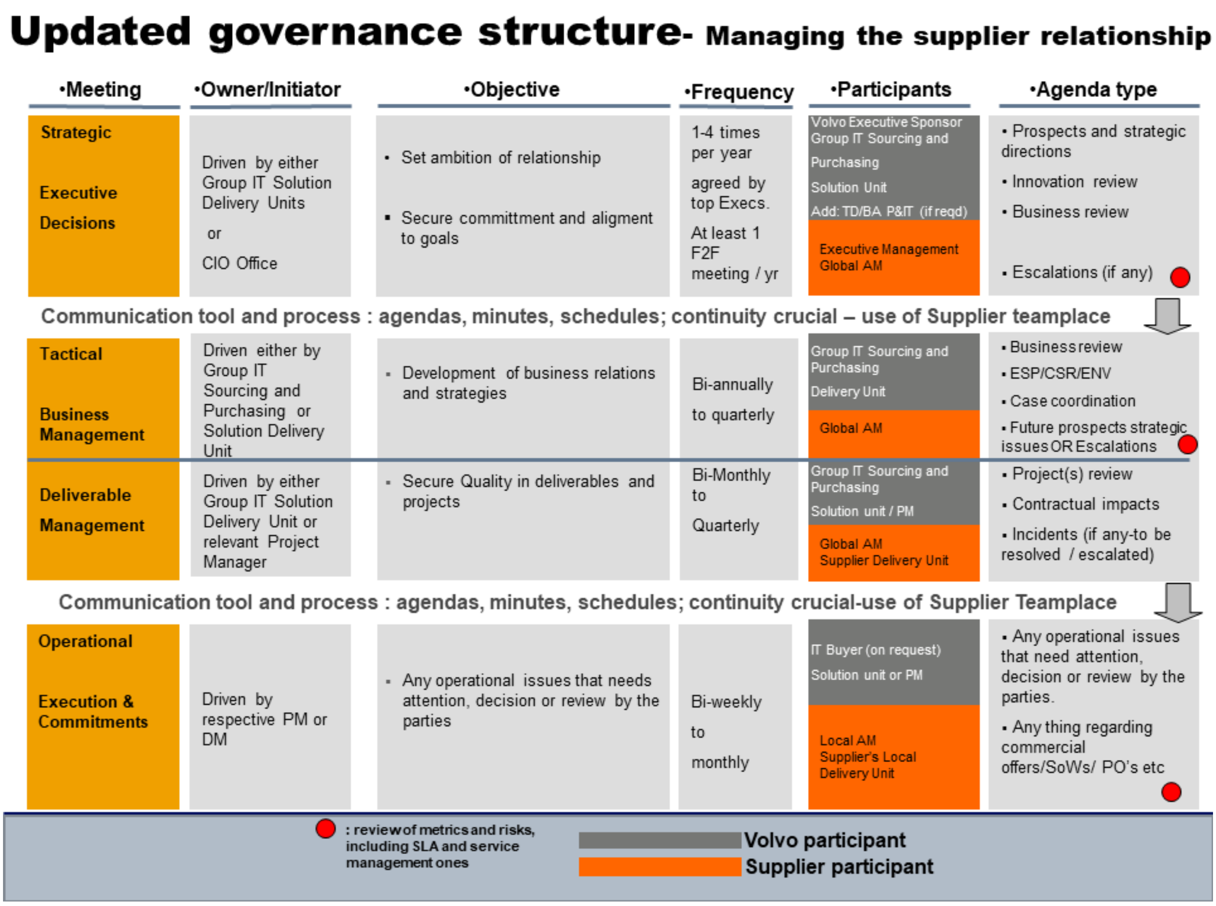
Based on these criteria the supplier is then placed in one of the four supplier categories, ranging from higher to lower priority: Strategic, Key, Niche, and Non-critical. If Volvo, in relation to the supplier, is highly dependent, has a large future and current spend, is well aligned on strategic goals, the added value is high, and the scope of the supplier is important, the supplier will be categorized as a strategic supplier. They use guiding criteria and suggested values for spend, cost of switching, and time periods, but these criteria and values are not "hard truths", consensus about the right category must be reached together between the different stakeholder within Volvo.

The governance model is, after the categorization, mainly focused on what kind of meetings that should be conducted with the supplier, also, how often, what participants to include, objectives, and agendas for the different meetings, are given recommendations about. There are three kinds of meetings: strategic, tactical, and operational, each with their own objective and structure. The different meeting types are described in more detail in Figure 5.

The general recommendation is to only have the strategic meetings with the Strategic suppliers, with Key suppliers it is recommended to conduct all but the strategic meetings, with Niche suppliers the tactical Business Management meetings can be held, but with a more convenient and less formal set-up. Lastly, for Non-critical suppliers they recommend an informal and convenient set-up, and only the Deliverable Management and operational meetings.

Figure 5

The overall IT governance model within Volvo Group



A relatively new tool within the Volvo Group is the Partnership Assessment Tool. The tool is mainly focused on comparing different supplier alternatives when seeking a partner for a new case, but it can also be used for single supplier assessment. The suppliers are assessed using eight different criteria clusters, with value proposition, strategy, culture, and innovation being some of the criteria. Each cluster is assessed by giving a score on different criteria within each cluster, providing an overall score for the individual clusters. There is also the possibility to adjust which criteria to include and the relative importance of the different criteria and clusters, depending on the case at hand.

4.1.2 Defining a Partnership

When interviewing the people at Volvo about how they would define a partnership, there was a lot of similarities in the answers. Many of the answers centered around the sharing of risk and having a win-win kind of relationships, with mutual investments. There should be risks and rewards for both parties, and a balance over time. However, one VM describes how the monetary amount Volvo spent on a certain supplier warranted a closer relationship. The VM's viewpoint is that the previous relationship had not been close enough considered the spending involved in the relationship. Another VM also describes that partnerships require something else compared to important suppliers. The VM describes how the governance might have to be different between them, and that a supplier can be important without it necessitating a partnership. One employee within the area of partnerships explains the same thing, that in a partnership there should be some kind of mutual dependance, and if not, the supplier might be important but not a partner. And finally, one VM says that the spend can imply a certain supplier classification (e.g., strategic), but that alone is not enough for it to be a partnership.

Several interviewees also describe trust as a key component for a partnership. One VM states that having unclarity regarding prices and trying to re-negotiate them can be seen as a behavior obstructing trust. This focus on prices and fairness is also highlighted as important from Volvo's side. It is described how it is important to make sure that the supplier earns money from what they are selling, that their margin is healthy. However, this does not mean that keeping costs down is not of interest to Volvo, but that there must be a balance. Trust is described as a necessary foundation to be transparent and create a situation of win-win and value for both parties. Partnerships can also change over time, new people, new projects, etcetera, and this requires effort from both sides to nourish the relationship.

When asked if a certain relationship with a supplier could be considered a partnership, one VM says that it depends on which part of the relationship that is in question. For certain parts, they have a joint venture like set-up, where they collaborate a lot regarding development. The VM feel like this was a partnership. However, in other areas they have a more transactional relationship, and in these cases the VM feel that it is not really a partnership, albeit an important supplier. Similar answers are given for defining a partnership, where emphasis is put on partnering on specific projects and sharing the cost of development.

4.1.3 Organizational Factors and Trust

One VM explains how cultural differences are important to keep in mind, and that differences can lead to problems when trying to collaborate in a closer fashion. Cultural differences can lead to misaligned perceptions of the relationship, and even such simple things as geographical time differences can be obstructive for the relationship. The VM also explains that decisions in purchasing tend to be based only on hard facts and aspects, but that more soft aspects can be as valuable to consider when making decisions. This is one area where improvements can be made and is especially important to include when engaging in more partnership-like relationships.

One issue when trying to collaborate more closely with a supplier is that they can lack a role that can work as the bridge between the entire supplier-organization and Volvo. One reason for this can be that they are very product-centered, having specific resources allocated for each product they are selling, but not working in a more integrated fashion. Another reason that was highlighted is the fact that many of the suppliers have products and services across many areas and departments within Volvo and this makes it difficult to be aware of everything that is going on in the relationship and exchange between the parties.

Another problem can be that the sheer size differences between Volvo and the supplier can hinder effective collaboration. This can become a problem of involving executives from the suppliers in the relationship if they do not acknowledge Volvo as an important enough customer. But it is also mentioned that smaller suppliers can sometimes lack the long-term focus of bigger suppliers, as the smaller ones focus more on one quarter at a time and might even expect to be bought by a bigger company within a few years. The importance of executive buy-in and commitment is a recurring subject during the interviews. One VM says that a partnership requires commitment from the top to be successful and the people in more senior positions must understand what it entails and how one should act in a partnership. It does not matter how much the people further down want the partnership to work, if the commitment is not there from the top it will not succeed, partly because the fact that as a case gains importance it also moves up in the organization for decision making. The VM states that many relationships have ended up in the more traditional transactional type of relationship because of this. Another VM also mentions that executive buy-in becomes more important as the size of the case grows.

They explain that executive buy-in is important for defining which type of relationship Volvo is going to have with a supplier. One VM feel that the question of a partnership was something that needed to be decided and committed on by the respective parties' executive boards or similar. Another one describes a situation where there were different views on how a supplier should be handled within the company. These different views stemmed from the fact that the internal communication regarding the status of the supplier has not been fully clear and has led to staff making their own interpretations. One example of an action that contributed to feelings of commitment was filmed dialogues between executives in both companies involved in the relationship. One of the VM describes that there was one company that several people thought could be suitable for a partnership were Volvo's inability to clearly define what they wanted out of the relationship stood in the way of developing a closer relationship. Also, another aspect that increased the need for clarity in managing this supplier was the fact that their products and services are involved in multiple parts of Volvo. Another VM feel that a certain relationship would never be fit for a partnership, describing how there might always exist a better solution elsewhere. For this VM it does not make sense to lock Volvo into using certain solutions because of an already existing relationship.

Sharing risks can be difficult to attain when working with suppliers of IT solutions. One respondent compares it to a situation where you co-develop a generator for a truck, in which both parties are dependent on the success of the project. The VM argues that when purchasing IT solutions you are more stuck with a certain option. Some suppliers focus very much on offering "off-the-shelf" solutions. This can for example manifest as a situation where you have a lot of collaboration regarding technology and how to implement it, but negotiations around price happens after this planning, putting Volvo in a situation where they are locked into a certain alternative.

The employees at Volvo highlight various aspects of how purchasing IT solutions can be different compared to buying parts for manufacturing. One of these is that when deciding to go with a certain application, this application will often be used for ten years, or even longer. Another one is that the switching costs of changing an IT supplier are higher compared to physical goods. One VM describes how this is different for Digital and IT compared to for example AP, which can more easily switch suppliers because they buy more physical-component types of products, and a change there does not have the same implications on the organization's ways of working.

When asked to define a partnership, several of the VMs mentions mutual risk as important for a successful partnership. Some describe the sharing of risk as a challenge, where Volvo takes on almost all the financial risk in a relationship, which is not conducive for moving towards a closer relationship. One VM highlights a case in which a closer relationship or partnership could be beneficial, however the other party was unwilling to invest in things like support for the product purchased. The VM also says that transparency and "skin in the game" were lacking from the supplier in the relationship. One situation that is described is one where the respondent felt that from a technological perspective they had a partnership with a certain supplier, but not for a commercial or risk-taking perspective. In the relationship with one supplier Volvo and the supplier both helped each other during tougher times, even though they were not formally obliged to do so, and this strengthened the relationship. The opposite happened when Volvo asked several suppliers to lower their prices during the financial crisis of 2008 and one of the strategic suppliers refused to do so and was the only one to refuse, it set the relationship between Volvo and the supplier in a negative direction and created an internal resistance at Volvo towards that supplier.

4.1.4 Relationship Management and Governance Structure

As one VM says, the way the suppliers are handled varies, but the overall governance structure from Volvo, with operational, tactical, and strategic meetings is something all use, but with slight variations. For one supplier they have the governance structure included in the contract. One supplier delivers IT solutions/applications for several different business areas within Volvo and within these they also have their own governance pyramids, with meetings and contact points between the appropriate people at Volvo and the supplier. One thing that is evident is that strategic meetings are more important for relationships with the closer and more prioritized suppliers. It is also clear that the current structure of the three layers is seen as working well and is common praxis in the industry. Different VMs seem to relate to their suppliers in different ways, some focus on relationship-building while other have more of a transaction focus and try to keep an arms-length relationship.

With the suppliers they have so called "forums" where more specific projects and topics can be discussed and developed, here the vendor managers can help with finding the right person to start a new forum or fill competence gaps in existing ones. With the big suppliers it is not possible to take part in all forums as the vendor manager, they need other stakeholders from within Volvo to drive the agenda, but it is the vendor manager's responsibility to orchestrate the big picture and push escalations.

Managing and keeping track of all points of contact between Volvo and the supplier is something that the VMs finds difficult at times. Having a single point of contact (SPOC), usually the VM, is one approach used to make sure things are handled correctly and in a systematic way. One points to the drawback of having multiple buyers from Volvo towards the same supplier when trying to negotiate on the price, instead they consolidate the purchases, and a better price can then be negotiated for the bundle. Two other VMs sees themselves as the orchestrators of the relationship and try to make sure that the right people meet each other for new projects. Several of the VMs says that it is not possible for them to attend all meetings between the supplier and Volvo, that would be too time-consuming, and focus should instead be put on the bigger picture. One VM says, however, that it would be good to be in the same meeting as the supplier's Customer Account Manager (CAM), to have the same information going into meetings with the CAM. A common task for all VMs is to handle escalations, and when necessary, raise them higher up in the governance structure. One interviewee also highlights the importance of making sure that issues are brought to the attention of the supplier's development team. Doing so will provide Volvo with a better answer and root cause analysis, as well as developing the service from the supplier.

To manage the supplier and to get the desired outcome they have learned to use the responsible team at the supplier and let them push from within the supplier, penalties are also used to make sure that the supplier delivers what they have promised. Another VM says that when Volvo have multiple projects and initiatives active with the same supplier, they can use it to their advantage when one project is struggling, using the influence of the other projects and knowledge of the whole relationship to push it forwards. Being clear about and communicating the internal processes for sourcing and decision making from both sides is also beneficial for both parties, supplier and customer. It reduces misunderstandings and creates smoother collaboration. Two VMs also mentions that the relationship will benefit from awarding the supplier when they outperform themselves or go above and beyond for Volvo, not only to penalize when they do the opposite.

Internal alignment within Volvo is both seen as something important and at the same time difficult to achieve. Closely related topics are also effective communication and information sharing, both of which contribute to internal alignment. Several VMs say that identifying cases for which a current supplier could be interested in and including them in the sourcing case is important for the relationship and should more or less be given for a strategic and/or partnered supplier. However, this is not always an easy task. Firstly, it is challenging for the VMs to be fully informed of all the cases and projects within Volvo Group. Secondly, most of the suppliers have such broad portfolios and can therefore be relevant within many different areas and sourcing cases. When asked if the strategic suppliers do not demand more, being an important supplier, the VMs say that they cannot give a case any way they like, it must go through the sourcing process. They also highlight that the current suppliers, especially the bigger ones, already have an edge against the others in a new sourcing case since they have contacts within Volvo and are familiar with the processes of Volvo.

One VM says that the information flow between the different layers in the governance structure (operational, tactical, and strategic) can be a challenge, especially the top to bottom flow. They create routines and processes for escalations and so forth, but if the people involved in the meetings and relationship do not understand the governance structure it will not work in the end, despite these efforts. One VM says that they must move all the way from the executive level down to the operational to get the full picture of the relationship and know what to bring to the table for discussion with the supplier. Another VM says that more meetings should be conducted internally in order to create alignment, and it should not be assumed that all discussions regarding a specific partnership should be done with the partner. Again, top level alignment and commitment is needed. In some cases, it might be necessary to replace specific individuals in the relationship, because of differences in management style that might not fit the relationship, which can be difficult to do if it is a person on the customer side of the relationship, according to one interviewee. Another issue brought up is the fact that no service is the same as another. In contrast to the buyers at AP who can be very specific in their requests, for example when it comes to geometrical size and material, IT services and solutions can seldomly be specified as detailed. The VM uses the example of CRM systems, none of the five biggest CRM systems available on the market has the same functionality as another, and this will of course create the possibility to find something that will be customized to fit Volvo, but it will also create disturbances and conflicting opinions of what is needed and best to select. On top of that, there might be various extensions and integrations with other services and solutions, adding to the complexity.

Alignment is not only important internally, but also in the relationship with the supplier. As one VM says, it is not enough that one party sees the relationship as a partnership, both must agree that they will work together towards the same goal in a partnership. Having strong internal alignment going into meetings with the supplier will make sure that it is clear from Volvo's side what the desired outcome is and avoid confusion with the supplier, according to one VM. They argue that strong coherence between all stakeholders, just as a good governance structure, is essential for a strong relationship. Two of the VMs also mention technological roadmaps as a tool to better align with suppliers. It is seen as an important topic to address not only in the initial phases, but also throughout the relationship during the higher-level meetings.

Although alignment and coherence across the relationship is important, there must be some sort of division of meetings and focus to get more "sharpness" in the meetings, as one says. To get the required depth in the meetings they are divided into relevant divisions: finance, HR, Volvo Construction equipment, operations and so forth. The VM acknowledge that this separation might create disconnection between the different parts within the relationship, but that is handled by monthly internal meetings where everything is aggregated and synchronized, both horizontally and vertically.

4.1.5 Specific Relationship with Suppliers

The main contact point for the VM is the customer account manager at the supplier, and one interviewee describe that there is often a customer success manager who interacts more with Group IT and the business units. The VMs are most present at the tactical level in the governance structure and meetings, but it is also necessary to at least gather knowledge from the operational level, and often they are also present in the strategic meetings to provide input from the lower levels. One VM says that it is important to have transparency, in both directions, about the internal processes regarding sourcing and decision making towards the other party. It builds trust, but also reduces misconceptions and time spent on non-value adding activities. The VM appreciates one supplier's honesty about what is up for negotiation and what is not, allowing the VM to focus on the right things. There are also suppliers that are not as transparent, one example given was that one supplier first wanted Volvo to put forth how big of a commitment they would make towards the supplier and then they would say how much discount it would imply. But Volvo wanted to know the discount for the different levels of commitment to be able to decide how much they wanted to procure, consequently putting the negotiation in a deadlock.

One VM says that it might be better to change the vendor manager for a supplier after some time, maybe three to five years, since it is easy to get comfortable in the role and that it creates a sort of tunnel vision. Although a long relationship will provide benefits in some areas, such as good knowledge of how to get things moving at the supplier side and personal connections, it can also be damaging since you create a sort of personal lock in effect.

One supplier changed their approach for one of their software programs, going from free to use to suddenly charging for it. The market, not only Volvo, had used the free technology and created a dependency to it. Volvo had developed solutions and applications around the technology and suddenly they had to decide if they should keep using it and pay for it or look at other possibilities. The VM says that changes like these are some of the most challenging ones in buyer-supplier relationships, it is easy to create new connections if people in the relationship gets replaced, but changes in the preconditions and terms of the relationship can be very problematic.

Several of the suppliers have a long history with Volvo, and consequently Volvo is more or less dependent on and experiencing a lock-in effect with the suppliers. The interviewees acknowledge the potential risks of this, but also that it also has some benefits. One VM describes the long relationship and knowledge about each other's competencies as the enabler for a current development project, a project possibly not taking place if they did not have the history together as buyer and supplier.

4.1.6 Value Proposition and Follow-up

The vendor managers describe the difficulties in putting a realistic monetary value on the IT services that they procure for Volvo Group, but also how to ensure that what is promised from the supplier is also delivered. For one supplier Volvo has an entire team dedicated to making sure that the various service level agreements are met by the supplier, but also that monetary penalties are given when the SLA is not met. The supplier is also rewarded when they perform better than the SLA. The same system is not in place for another supplier. That specific supplier is described to be the one that produce the numbers for the cost savings that Volvo will benefit from when buying a system or service from them, but little or no work is put into checking whether these numbers are realistic, or the promised improvements associated with the cost savings are achieved after the implementation. The VM acknowledges that Volvo must improve in this area. Another employee, working with partnerships, mentions that there is a risk of missing the big picture and win-win when focusing too much on the financial figures.

One VM says that a setup where the supplier gets a share of Volvo's revenue as payment, and therefore would be motivated to and help raise the productivity, would be kind of a "utopian" setup and truly a partnership with shared risk and reward. The VM later returns to the subject and discusses the option of tying ten percent, for example, of the cost to the promises that the supplier gives in the start of the project, then follow up on these promises a year later and if they have delivered as promised they get the rest of the payment, otherwise they do not. Another VM says that it is not uncommon to tie a part of the payment to certain deliverables, but that it is important that both parties agree on the terms, to avoid conflict later.

There are some differences when it comes to negotiation, both internally at Volvo and how the suppliers operate towards Volvo. One supplier is described to try to charge as much as possible, and when put up against other alternatives suddenly can lower their prices substantially. One VM is clear with that they always put the supplier up against other alternatives and nothing is awarded for free just because they are a strategic and important supplier, an approach the VM believes is not used by all other VMs. However, no interviewee stated anything else than that exposing suppliers to competition and choosing between several options is the best approach. Another big supplier has a set price list and offerings, and with this supplier Volvo simply try to negotiate the price. One VM also describes how Volvo can more easily adjust the content and delivery of services than for goods and get a more tailor-made solution.

One VM says that a supplier that does not pitch and sell any real value or does not deliver what they promise will not remain as a supplier in the long run. They will not have anything to build on and will eventually be replaced. Another VM says that they must be attentive during new sourcing cases for suppliers that try to win a negotiation solely on price, just to get a foot in at Volvo. Focusing only on price can be a significant risk in the long run. Continuing the topic of price, one VM says that in a partnership they must be able to rely on the supplier to make their calculations the way it is agreed upon between Volvo and the supplier. If they find any deviation or opportunistic behavior the partnership will be harmed, and damage will be delt to the trust that has been built up between them.

Regarding following up on the value supposed to be delivered from the supplier, several state that this is an area that can be improved. Volvo is not particularly good at asking for follow-ups, and the suppliers seem to be content with continuing as usual. As one VM says "*There's a lot of Power Point before, but not so much afterwards…*" pointing to the fact that what is promised during the negotiation is not circled back to afterwards. The VM continues to say that it is however not as easy as for physical products, since the value from an IT service is often quite intangible and dispersed throughout the organization.

Regarding calculating ROI and TCO, one of the respondents highlighted three categories as essential for a cost-calculation related to Digital and IT services: Infrastructure, Manpower, and Licenses. Manpower can also be further divided into internal and external. Also, another respondent thought that it is important to take benefits into consideration even if they are not easily calculated. It is also important to be specific in what the benefits will be, even if this might lead to more difficulties in calculating them.

4.2 The suppliers' perspectives

Here follows the presentation of the results from the interviews with suppliers, structured in the same way as the chapter about Volvo's perspective.

4.2.1 Defining a Partnership

All suppliers think that a partnership centers around something more than purely focusing on the transactions taking place right now. One supplier argues that an optimal partnership is based on a mutual understanding of the other company's processes. This understanding should include the current core business and where the organization is heading, but also how escalations are made and what input the other organization needs to perform their work. This perspective is also given by the other supplier interviewed, who states that it is important to be well-read on what the other parties need to solve their problems. This will help in visualizing how the skills and solutions of the supplier can help the buyer in solving their issues and fulfilling their goals. It is important that these potential benefits are presented in a way that is specific and relevant to the customer in question, and not just a generic list of possible benefits. One supplier highlights the need for information and maintaining a long-term perspective. Regarding maintaining a long-term view, it is important to find the proper balance between the short-term and long-term view. This is to make sure that both parties are satisfied with the exchange of the relationship. Both suppliers mention the importance of achieving win-win situations, and that this is the core of partnership-type relationships.

One supplier describes that while the relationship is between a buyer and a supplier, both parties need to look beyond individual transactions and make sure that the relationship really benefits both parties in the long run. It is also often beneficial for the relationship if both parties share as much information as possible. The supplier acknowledges that transparency during negotiations can improve the outcome. The other supplier also calls attention to this by stating that a relationship based on giving and taking is key to a partnership.

One supplier argues for the importance of having a clearly established governance model, with a relationship that is closer than the typical buyer-supplier relationships. This supplier also explains that in order to have a beneficial partnership they need to be based on both parties being engaged, without one side making all the adjustments. The supplier also points to the pure size of a company potentially being a challenge since many different people are involved.

4.2.2 Organizational Factors and Trust

One supplier thinks that it is important to be well informed and knowledgeable about both the buyer and supplier challenges, initiatives, and culture. This is because by matching these factors in the relationship, the supplier has the possibility to improve the situation for their customer. Also, it is described how customers sometimes need help in realizing what the supplier can contribute with, and that this includes both hard goals, as well as soft goals, such as sustainability. It is important to keep in mind the mutual goals of the relationship and develop a plan for how to achieve them. Also, the importance of transparency is highlighted, and being open and honest with what is in one's control, and clearly defining the playing field. This can help with developing a mutual plan and having defined hinderances for its achievement.

One supplier says that the size of an organization can obstruct an effective partnership, because a big organization is often comprised of many smaller companies and divisions. This can lead to differences in how a supplier is seen by the different parts of an organization. Some parts of the company have a history and lots of exchange with the supplier, while others are not as knowledgeable about and keen on using the supplier. The respondent thinks it would be beneficial if it were very clear for all parts of the company that it is a strategic supplier. This still means that they need to compete for contracts, but they should not be overlooked when products and services within their area of expertise are procured.

When it comes to building trust, one supplier argues that there is no one way to build trust, but that it rather needs to be dealt with on a case-by-case basis. However, the supplier again highlights the importance of having a relationship built on give-and-take and understanding the other party. There is also the suggestion of having a sponsor at Volvo that can help the supplier in getting into discussions with parts of Volvo where there has not been much previous exchange. This sponsor can ease the process of getting acquainted and help the supplier visualize how it can assist, while at the same time also explaining what challenges there can be in working with the supplier.

4.2.3 Relationship Management and Governance Structure

When it comes to relationship management, one supplier argues that planning together with the customer is paramount, and that this can help in allocating the limited amount of the supplier's resources towards initiatives where they will have the greatest impact. A proper time horizon for this type of planning can be a rolling twelve months. However, loose presentations and discussion regarding the buyer's long-term plans can be beneficial, while keeping in mind that the visualized direction can change. Also having a continuous dialogue can also help with achieving this. This dialogue needs to be open from both sides and can include both the supplier saying they are not the right choice for this issue, as well as the buyer stating that the supplier is not a candidate for this deal. Having open discussions will help to save time and resources for both the buyer and the supplier. Here it is also mentioned that the supplier has great interest in helping the customer succeed, for example to able to later use the customer as a reference.

One supplier points out that it is important to divide the daily operations and the strategic activities in meetings regarding the relationship. Strategic activities should include planning for all different business areas, where it is important to establish what is working and what is not working, and where they are heading in the future. In accordance with current practices, having separate levels in the governance models and making sure that meetings are held with the different levels of the two organizations are important for coordinating activities at these different levels. Also, having established forums and ways of interacting is important.

One supplier thinks that a good governance model should have three different levels, which can be described as operational, tactical, and strategic. At the operational level, all daily business is handled, and this can be on a weekly or even daily basis. It is important that people on both sides know who to reach out to if problems arise. For the tactical meetings, a frequency of monthly or quarterly meetings is sufficient. However, these types of meetings should be conducted at least quarterly according to the supplier. This type of meeting is set up to share new knowledge and discuss areas for future improvement. Key aspects of the operational levels are on the agenda for these types of meetings, and how projects are progressing. Strategic meetings should be held at least one time each year, and preferably two times per year. Strategic meetings are held in order to align the interests of the buyer and the supplier and to make sure that they are heading in the same direction. Strategic meetings offer a chance for the supplier to learn from executives at the buyer where they are going as a company in the future and identify areas where the supplier can help them realize these plans and visions. Lessons from other customers that can be helpful are also presented. Discussing these matters is much more difficult in tactical or operational meetings because you need to speak to people who are responsible for the overall development of the company.

The governance model can look pretty similar for both strategic partners and suppliers not categorized as partners, if there still is high spend from the customer. However, for smaller customers that might use a lot of different solutions than the ones the supplier can offer, the governance model might look different. One example can be that there will not be much interaction at a strategic level, and this is due to the lesser possibility of making an impact at that high of a level within the organization. One main point that the supplier argues is that the closer Volvo works with a supplier, the easier it will be for both parties to see what the supplier can contribute with.

4.2.4 Specific Relationship with Volvo

At one of the suppliers, everything that is in production at a customer is handled by the customer success organization within the company. A customer success manager act as a coordinator, for example making sure that contracts are followed, if there are any open requests, and if there is a need for education. This manager then directs resources towards solutions under implementation where a need has been identified. Then there is a key account manager type role, that is responsible for the overall relationship. The role interacts with different levels, however not directly with project-related matters. Also, the customer success manager is reporting to the key account manager how things are going, and the key account manager can assist in solving issues that arises. There are also experts from different fields, examples of areas of expertise can be sales, marketing, and commerce. The key account manager and the lead buyer at Volvo does a lot of the planning and takes a lot of decisions for the relationship and then both sides bring people who are experts on Volvo's present needs. If someone at a higher level within Volvo wants to arrange a meeting regarding developing a better understanding of what the supplier can contribute with, there are industry experts that can assist in giving the Volvo employee a view of the different possibilities.

One of the suppliers mentions that the number of people involved in the relationship from both the buyer and the supplier can be a challenge. This is not only in relation to Volvo, but large customers generally. As an example of a practice to counteract this, is to make sure that areas of responsibility are clearly defined at the operational level for both parties. When dealing with a large customer, where lots of different initiatives are ongoing at the same time, it can become a challenge to make sure that every issue is spotted and dealt with. Despite these challenges, the supplier highlights that not everything can be governed centrally, but that decisions needs to be taken closer to the issue in some cases. It is also important to be transparent and able to tell customers when a supplier does not think that a certain solution will be a good fit. This is a way to use one's expert knowledge to benefit the relationship long-term. Here the importance of having good internal relationships with management are highlighted, to be able to say no to a customer's proposal, to benefit the relationship long-term and not pursue short term gains.

When describing who are interacting with Volvo on the operational level, one supplier describes how a customer success manager, and a key account manager type role handles a lot of the coordination for the relationships. The customer success manager main goals are to help the customer squeeze out as much value as possible from their investment. The CSM works continuously with the users, integration experts and process leaders at the customer, giving advice and suggestions on how to improve the implementation of the solution. When a situation calls for it, this person can also call upon experts in different fields to assist Volvo. Sometimes the supplier needs to be proactive and start the dialogue regarding improvements and sometimes the buyer will reach out. Often this depend on whether the involved person have worked with the supplier in the past and is acquainted with their consulting-organization. On the tactical level, it is often the managers of the people involved on the operational level that are participating. These managers have often been highly involved in choosing the supplier as the provider of a certain solution. Matters that are discussed include checking if the investment is delivering the promised results, is there areas of improvement, do we leverage the data in the system in the best way possible, and what does the overall situation and relationship look like. On the strategic level, the supplier is interacting with the CEO or Vice Presidents at Volvo.

Which people that are participating on a strategic meeting can vary, and often depend on the topic of discussion.

When discussing challenges in working with Volvo, one supplier starts by stating that Volvo is a highly valued customer by the supplier. One challenge that is presented is that Volvo is a large company, consisting of many different organizations. Also, that the supplier is categorized as strategic by Volvo, but that it is not known by all people throughout the company. The supplier thinks that since the relationship is well established, a lot of problems should be easier to solve than they currently are, acknowledging that the purchasing staff from Volvo likely feel the same way. Flexibility in the way the relationship is managed is highlighted as an area of improvement. It can also be a challenge to make sure that the actual work follows the agreed-on governance model, and that it is important to follow the governance model to achieve structure in the information flow.

4.2.5 Value Proposition and Follow-up

One supplier thinks that they as a supplier are generally good at showcasing the potential value of a solution and grounding this potential in references. However, this supplier also says that often they do not do as good a job on following up whether this potential is realized. It is pointed out that the end result to a large degree depend on the change management proficiency of the buyer, and that this needs to be taken into consideration when evaluating the implementation of a solution.

One of the supplier states that they start every request for proposals by trying to really understand what the customer needs help with and why they want to do something in the first place. This can for example be that the previous solution is getting towards the end of its user life and needs replacement, or that it is hosted in the wrong cloud, among others. They also want to know if the decision is built on some kind of strategy, and who has decided on that strategy. By knowing these things, it becomes much easier for the supplier to develop propositions that capture the possibility of helping the customer. The supplier thinks that only showing in general terms what a solution can contribute with does not add much value to the selling process, but that the presented benefits need to be specific for the customer. Potential benefits that the supplier wants to present are value gained, resources saving and possible sustainability improvements.

4.3 Meeting Observations

During a couple of meetings regarding the governance structure for a supplier, some topics of interest arose. One issue that was under discussion is that sometimes there are differences among internal users within Volvo Group, they see a need of stronger alignment internally and towards the supplier. Relating to this issue they also discussed the different ways the services and technology of the supplier are used within the group and how this creates different areas of interest. One company within the group feel that they were a bit neglected during previous strategic meetings and wanted more priority, they have also come longer in their use of the supplier's services and are a more advanced user. There is also the issue, not only for meetings with this supplier, of people not taking an interest or even joining the meetings because of the size of the meetings in terms of topics to be discussed and the number of people involved. They think that the right people must be invited and present at the meetings, while not keeping the focus too narrow and missing out on knowledge sharing and keeping the interests of the whole group aligned.

5. Discussion

This section discusses the topics described in the results chapter. The goal is to provide structured reflections on the findings presented. The subheadings follow the same structure as the results chapter, namely: Defining a Partnership, Organizational Factors and Trust, Relationship Management and Governance Model, Specific Relationships with Suppliers, and Value Proposition Presentation and Follow-up.

5.1 Defining a Partnership

When asking interviewees to define what a partnership is, they gravitated towards the sharing of risks and mutual dependence as defining factors. This correlates well with some of the literature presented earlier. Bensaou (1999) argues that when both supplier and buyer have specific investments in relation to the counterpart, they are in a partnership. This can be likened to mutual dependence and sharing of risk because specific investments will not be worth much when looking through the lens of another relationship for either party. Both are therefore dependent on the relationship to get a return on investment. There were no differences in the way respondents of the suppliers or Volvo chose to define a partnership. As mentioned, one VM thought that some aspects of a relationship might be a partnership and other parts not. For example, in a joint venture, the success of the project is necessary for both parties to attain the desired benefits. This is not the case if Volvo is simply buying a standard service without much alteration to it. It might therefore be better to categorize certain projects or purchases as partnerships, rather than whole relationships, at least in some cases. One interesting dichotomy in the literature that relates to this is the difference in the purchasing portfolio models presented by Bensaou (1999) and Caniëls & Gelderman (2005), respectively. In the model presented by Bensaou (1999), the categorization is of relationships, while Caniëls & Gelderman (2005) focuses on items. Categories describing relationships are of course important, but it might be that categorizations of both the overall relationship and the purchasing or project type can be helpful.

One aspect that the suppliers highlighted but the respondents from Volvo did not mention is the importance to be knowledgeable about the other party in the relationship. This concerned both the core business and processes at the company. A possible explanation for this is that it is the suppliers that are bringing something for the buyer, and that knowledge about the buyer might be more critical to the supplier than vice versa. It was however highlighted by the suppliers that it can be beneficial if both parties are knowledgeable about each other. It might also be that this is something that Volvo is already good at but did not explicitly mention in interviews. If this is not the case, an area for improvement might be increasing the knowledge regarding the suppliers. According to the classification by Wynstra et al. (2006), the purchases investigated in this project would fall under the category of instrumental services. As described by Baptista et al. (2022), instrumental services require a good understanding of the buyer on the supplier side, and that the buyer understands how the suppliers value offering fit into their processes. Here the literature included in the framework and the interviewees observations seems to match each other. It might therefore be an important aspect to take into consideration when working with these types of services, and especially in a partnership setting.

Both suppliers and Volvo argued for the need to look outside the scope of daily transaction for a partnership to be successful long-term. In the hierarchy by Liker & Choi (2004), the top step is to conduct joint improvement activities. This step can be seen as the long-term goal of partnerships, requiring close collaboration, and looking beyond daily transactions. Issues regarding trust and transparency was mentioned, where as much transparency as possible was considered to be beneficial. For example, both suppliers and Volvo respondents mentioned being vague during negotiation could negatively impact the trust within a relationship. This is in line with the overall definition given, which is about mutuality and creating win-win situations. It is hard to create win-win situations in a mutual fashion if the other party's situation, conditions, or goals are unclear.

5.2 Organizational Factors and Trust

One VM had established a closer relationship with a certain supplier based on the spending towards that one supplier. As we have described earlier, spend is a large factor in what determines the categorization of suppliers at Volvo. There is a case to be made for that kind of categorization, as large transactions carry an increased financial risk. However, this focus can also mean that other important aspects of supplier categorization are overlooked. For example, there might be different organizational hinderances and mismatches. To have a fruitful partnership, it is likely that factors relating to both the organizational structures and the fit between organizations will play a role. One thing that made collaborating with a certain supplier difficult was that they did not have a role facing the entire organization of Volvo, responsible for the overall relationship. This can be an example of something that might need to always be present in a partnership. Another hindrance experienced was that the supplier might be too big in relation to Volvo, which could be a question of fit between organizations. It might not necessarily be about the size difference per se, but rather how integral the success of one company is to the success of the other. Another thing that might make an organization unsuitable for a partnership is if there exist large culture differences between them and Volvo. It can therefore be interesting to investigate which culture differences might be hindering and which ones do not seem to matter. The observation of one VM that certain parts of a relationship could be described as a partnership and others not, opens the question for a categorization that is not necessarily at a supplier-wide level, it could also be solution specific.

Aspect that can affect a partnership are the issues of trust, commitment, and executive buy-in. Here some respondents thought that trust was essential in defining a partnership, while others thought that it was a key component of a well-functioning partnership. The factor of trust explained by participants is in line with the literature, as Ryu et al. (2009) explains, trust and commitment are pillars to supply chain performance. Using the terminology from Ryu et al. (2009), trust comes as a result of operational action, while commitment comes because of strategic intent and actions. The participants explained how they felt that trust was important for being able to create win-win situations, and that executive commitment can create clarity in what kind of relationships Volvo should have with their supplier. It was interesting to hear the differences in how suppliers handled the question of price. It was described that one supplier was very keen on negotiating every deal and extracting as much value as possible from Volvo. As a response to feeling like a deal was slipping out of their hands, they could drop prices by a substantial amount. The VM felt that this behavior regarding pricing was not conducive to a collaborative relationship. Another supplier is quite different, offering a lot of transparency. From the authors' understanding, the former situation creates a more untrustworthy situation compared to the latter, where additional energy and resources will be spent on managing the negotiation instead of coordinating the solution. Also, the situation described were Volvo's inability of defining what they wanted out of the relationship with a supplier stood in the way of developing closer relationships, highlighting the need for a clear purpose and internal alignment in relation to the supplier.

5.3 Relationship Management and Governance Structure

It became apparent that different VMs have different ways of looking at and handling their supplier(s). Some are very much looking for close relationships and collaboration as optimal ways of engagement, while others tried to maintain more arms-length type of relationships. It was hard to clearly distinguish if this was due to factors such as cultural fit and importance of the supplier's product, or if it was due to the VM's personal style and choice. If speculating, the authors believe that the orientation of the VM towards collaboration is determined by factors at both Volvo and the supplier that make collaboration attractive, but that the VM's personal style can also play a role in this. This difference in how VMs handle different suppliers can be an argument for introducing another category that more clearly highlight that a specific supplier is a close partner.

From the interviews there were several examples that relate to the literature on power relations between buyers and suppliers. Of the power bases presented by Brito & Miguel (2017) reward, coercion, legal legitimate, and referent could be seen in the supplier relationships described by the VMs. Legal legitimate, reward and coercion were clearly present in the relationship where they use SLAs and penalties. The service level required is stated in the SLA, providing a legal base, and then penalties and rewards are distributed from Volvo towards the supplier. Rewards were used in the same relationship, from both parties, first towards Volvo and then later towards the supplier when they went through tough times, not for a specific overachievement or similar, but simply because they were pleased with the relationship and wanted to nurture it. The same relief was not given Volvo during the financial crisis from another supplier and that relationship did not benefit from the coercive stance from the supplier. Both VMs and one supplier mentions the benefit the suppliers get from having Volvo in their portfolio as something valued by the suppliers, in accordance with the referent power base that is described by Brito & Miguel (2017).

When both suppliers and VMs were asked to describe how they would design the governance of a relationship, they all described something approximating the current governance model. Everyone thought that having the three current levels, operational, tactical, and strategic, was the best way to organize in the vertical direction. The three layers were described as the norm in the industry and that more levels were not seen as something potentially beneficial. This might be because the increased need for coordination between levels would negate the potential benefit of further specialization at each level. However, some respondents pointed to the benefits of dividing the tactical level horizontally into different segments, at the same time acknowledging the need for coordination between these segments to have a coherent view. One VM highlighted that this was solved by having a monthly meeting. Having segments within the tactical level might help with what Van Der Valk (2009) highlight as paramount for close relationships regarding services, which is to translate the internal customer demands to the supplier. These arguments mean that the current governance model provides an ample base to serve partnership-type relationships.

5.4 Current Relationships and Areas of Improvement

Both supplier respondents mentioned the size of Volvo as a challenge, and one specifically mentioned the fact that Volvo Group consists of many different organizations as something that could be difficult to deal with. This indicates that internal alignment in Volvo will not only contribute to internal efficiencies within Volvo, but also have the potential to improve the suppliers' situation. This is comparable with Araujo et al. (2016), which states that internal integration is important for successful external integration. This was also seen as something important from the meeting observations, that the different parts of Volvo work in a unified way towards the supplier. One of the supplier respondents indicated that the status of the supplier as a strategic supplier was not always known when interacting with different parts of Volvo. This indicate that having clarity regarding definitions and that the status of suppliers and projects throughout the organization might be an area of improvement. One VM also pointed out that the CAM can often possess more knowledge than the VM about Volvo's needs and the services provided by the supplier. Better internal alignment can make sure that the VM is more well-informed when going into meetings and negotiations with the supplier.

Both supplier and Volvo respondents mentioned transparency as important for a successful partnership. Many of them pointed towards sharing as much information as possible as something that would be beneficial for the relationship. They are most likely not thinking that every little detail should be shared, but it still goes against what Liker & Choi (2004) describe as effective information sharing. The authors argue that practices of sharing as much information as possible can be detrimental and instead think that all information shared should have a clear purpose. This is because they think that acting on information is easier when shared in this manner. When describing information sharing, Gadde & Snehota (2019) describe how it is important to have transparency regarding crucial information. This can be an interesting area to investigate, what could be the proper way to share information, to not share too little, but also not too much.

5.5 Value Proposition and Follow-up

Sharing of risks in a buyer-supplier relationship is something that was seen as important for a partnership in several of the interviews, and also emphasized by the literature as a goal for the purchasing organization (Christiansen & Maltz, 2002; Selviaridis & Wynstra, 2015; Wagner & Johnson, 2004). This proves to be a challenge in practice however, and little of the risks are placed on the supplier according to the VMs. One way to fight this unbalance is to put some of the financial risk on the supplier by tying a part of the payment to one or several deliverables or KPIs, a sort of performance-based contracting. Not only will this create a stronger incentive for suppliers to deliver what they have promised, it will also make sure that they do not exaggerate their promises, since they must deliver on them. As Selviaridis & Wynstra (2015) point out, PBC often requires closer collaboration between the buyer and supplier in order to reach the desired outcomes, this rhymes well with the purpose of buyer-supplier partnerships. However, this will only succed if the performance can be measured without ambiguity. If there are misunderstandings about what the goals are and how it should be measured there is a potential risk of damaging the relationship. A set up with performance-based contracting can also be seen as a type of mutual investment in the relationship, both parties now have a strong reason to commit to it (Selviaridis & Wynstra, 2015), and the relationship will have stronger reason to be viewed as a partnership (Bensaou, 1999). Additionally, as pointed out as a weak point for Volvo, Volvo and the supplier will have a better starting point for keeping track of KPIs and monitoring the delivered value. As one VM says, it is paramount that the two agree on what should be measured. This will help with making sure that the measurements are well defined and actually measurable, not just loose promises. It should however be noted that one difficulty of tracing the benefits of an IT solution can be that they often are intangible and spread widely throughout the organization, therefore making it hard to isolate precisely what the solution have contributed to.

As mentioned by Wagner & Johnson (2004), KPIs can both be used to highlights positive and negative deviations, which can assist in learning from both successes and mistakes. They also note that emphasizing positive outcomes can strengthen the relationship, something that a couple of interviewees also mentioned as important, compared to only focusing on issues and negative outcomes. This agrees with the power bases reward and coercion presented by Brito & Miguel (2017), and their impact on the relationship. As stated in the results, promises of benefits with certain IT solutions are not always followed-up. Apart from comparing costs and benefits for financial control, there might be learning opportunities that will arise as a result of tracking the benefits of implementations in a more rigorous manner. Examining the return on investment is also a topic of follow-up, Van Solingen (2004) recommend to continuously review the ROI calculations to get the most value out of it. The VMs are however struggling with putting a value on the services provided and quantifying the value in monetary terms, in many cases there are soft values, and the impact of the services are dispersed throughout big parts of Volvo Group. Nonetheless, as Van Solingen (2004) explains, zero is no less arbitrary than any other number or uncertain estimation, the important thing is to start somewhere and not expect to be able to capture everything when assessing the costs and benefits of an IT service. As identified by Ellram (1995), there are several benefits of TCO and there is also a clear connection to follow-up and evaluation of suppliers. Among other things it can help with clarifying expectations, provide a consistent way of evaluating the relationship, and possibly highlight improvement opportunities. However, to much focus on financial figures can lead to missing the big picture, as noted in the results. There needs to be a balance and tracking financial figures and KPIs should be something that is mutual and that strengthen the collaborative elements of the relationship.

Liker & Choi (2004) describe how Honda and Toyota are working with monthly reports and continuous evaluation of their suppliers. There are of course different conditions for follow up depending on what is provided by the supplier, but there are evidently benefits from doing it. Volvo are currently doing follow ups in different manners, but there seems to be a lack of clear strategy behind the follow-ups on metrics and the overall value offering, it is handled quite indirectly, often with escalations. They have their meetings in accordance with the governance structure, but these are evidently missing some important areas regarding follow-ups. Several interviewees acknowledge that Volvo can improve in this area. Connecting to the discussion above about performance-based contracting, setting measurable goals and at given intervals following up on them can help Volvo better align with the overall strategy and make sure that the suppliers provide the desired value. For the follow-ups it can be useful to include the parties' technological roadmaps and evaluate how those align and then together identify the best way forward.

One final consideration is that there are some important differences between purchasing IT services and solutions, and physical products to be used in manufacturing. With the IT services the buyer is more locked into using a certain supplier, both because of fewer suppliers offering the same or equivalent product, but also because the switching cost is higher compared to changing supplier for a similar physical component. As Wynstra et al. (2018) point out, the problem solving related to the usage of IT services can be particularly resource intensive. One reason for this might be that IT services are more integrated into how the daily work is conducted, and a change here means changing the actual processes of the organization. This might indicate that partnership type arrangements might be especially attractive when purchasing an IT solution, as Wagner & Johnson (2004) state that partnerships can be a safeguard for negative effects of depending heavily on one supplier.

6. Conclusions and recommendations

This chapter is divided into two sections: conclusions and recommendations. In the conclusion section, the answers to the research questions are presented. In the recommendation section, the authors give some advice on actions that can be taken to further explore and develop in the area of partnerships with suppliers.

6.1 Conclusions

RQ1: How should partnerships with suppliers at Digital & IT at Volvo Group be defined?

As both the literature and interviewees describe, partnerships should be mutual arrangements, with aligned goals. This means that both parties have resources invested specifically for the relationship and that the investments are balanced between the organizations. The outcome of a partnership should have a clear connection to both companies' commitment and contribution. This ties to the importance of sharing risks and rewards in the relationship.

RQ2: What indicate that an IT supplier can be suitable for a partnership?

One basic criterion is that there is an identified potential value for both parties that requires close collaboration and commitment for its realization. This requires executive buy-in for a partnership from both Volvo and the supplier since the closer relationship necessitates increased levels of commitment. If there are no potential benefits of closer collaboration, a more transactional relationship will suffice, not all relationships are suitable for a partnership. Overinvesting in a relationship will only lead to spending resources better used elsewhere. Having a history of behavior that can be seen as trustworthy is also something that should be considered as an indicator for suitability if a previous history of transactions and agreements exists. The spend alone is not a suitable criterion.

RQ3: How should partnerships with Digital & IT suppliers be managed?

The current governance model has potential to work well in partnership arrangements. Dividing the tactical level into different areas can increase efficiency in each domain, however this necessitates coordination between the areas. Having monthly coordination-meetings at the tactical level can be a suitable solution. Internal alignment is important for both Volvo's and the suppliers' performance, and consistency in the internal communication about suppliers can help.

Sharing risks between the parties is essential for a strong partnership, although it is not always easy to achieve. Own initiatives to take on the risk can be a testament of the party's commitment to the partnership, but this is most likely seldomly the case since risk aversion characterizes most companies. Performance-based contracting can be one fruitful approach to be used by Volvo, both allowing the supplier to commit to a bigger share of the risks related to the relationship and to create stronger incentives for both parties to reach the desired outcomes. For PBC to be successful it is paramount that the outcomes are clearly communicated and measurable in an unambiguous manner.

6.2 Recommendations

- Develop a category for partnerships in addition to the current ones. This can favorably be on the level of a certain project, but also for a supplier relationship when applicable. Clearly communicate with the supplier the boundaries of the partnership and what it should entail, especially for project specific partnerships.
- Take inspiration from and use the available Partnership Assessment Tool, especially in the early stages of partnerships but also for continuous evaluation.
- Keep the governance model currently used for strategic suppliers and apply on partnerships, no matter whether the supplier is categorized as strategic, key, or niche.
- Investigate the opportunity to use performance-based contracts when applicable. This can be useful not only for partnerships but also for other types of buyer-supplier relationships.
- In partnerships, make sure that ample internal alignment is present to allow clear communication with the supplier. This also means communicating between the different parts of Volvo Group so that a unified behavior is shown towards the supplier.

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Appendices

I. Questions for Pilot Interviews

Q: What does a regular workday look like? What typical work tasks is carried out on a regular basis?

Q: In what areas do you need more support? For decision making etc.

Q: Are there any problems or difficulties that usually reappear?

Q: What is good and bad regarding the current governance model? With what frequency is it used and updated? Does the model give the needed guidance?

Q: Do you work together with other functions within Volvo or the suppliers?

Q: Which meetings or work with suppliers do you experiences as most value-creating? What could be reduced or taken away, without hurting the relationship?

Q: What is your definition of a partnership?

Q: What contact points does Volvo have towards your supplier(s)?

II. Questions for Project Interviews

II.a Questions for Volvo Group Employees

Partnerships in General

1. What would be your definition of a partnership?
2. What organizational factors and differences can enable or hinder a partnership? For example, similar culture, size differences etc.
3. What influences your level of trust and commitment in the relationship?
4. Imagine that you have a project or application that is developed with a supplier in close collaboration, as a partnership, but you also have the more transactional relationship to the same supplier in other purchasing situations. How would this be best managed in terms of governance, points of contact, etc.?
5. How would you design a relationship for improving performance? For example, level of centralization, contact points, meetings, etc.

Specific Relationship with Supplier(s)

6. Who are interacting with the supplier from Volvo's side, both directly and through you as VM? Who influences your management of the relationship?
7. Do you experience that there are issues/concerns in the relationship with your supplier(s)? How does it influence the relationship(s)?
8. What would you want to change in the relationship(s), and what could be some ways to achieve those changes?

Volvo's Role in Partnerships

9. What organizational parts (or functions) of the supplier are of importance to interact with?
10. Do you experience any lock-in effect or dependencies when choosing a certain IT solution and/or supplier? If so, why, and how do you manage these?
11. How is the value proposition presented and evaluated when purchasing a new IT solution? Do you follow up on it?
12. How can the suppliers become involved in follow-ups and evaluations of how Volvo makes use of their services? E.g., benchmarking with other customers.

II.b Questions for suppliers' Employees

Partnerships in General

1. What would be your definition of a partnership?
2. What organizational factors and differences can enable or hinder a partnership? For example, similar culture, size differences etc.
3. What influences your level of trust and commitment in the relationship?
4. Imagine that you have a project or application that is developed with a buyer in close collaboration, as a partnership, but you also have the more transactional relationship to the same buyer in other purchasing situations. How would this be best managed in terms of governance, points of contact, etc.?
5. How would you design a relationship for improving performance? For example, level of centralization, contact points, meetings, etc.

Specific Relationship with Volvo

6. Who are interacting with Volvo from your side, both directly and through your KAM (or equivalent)? Who influences your management of the relationship?
7. Do you experience that there are issues/concerns in the relationship with Volvo? How does it influence the relationship?
8. Based on your experience with other customers, how could you improve the relationship with Volvo Group and what ideas and best practices would you suggest implementing?

Suppliers' Role in Partnerships

9. What organizational parts (or functions) of the buyer are of importance to interact with?
10. Do you experience that the customers have an issue with the potential lock-in effect of choosing you as a supplier of an IT solution, and how do you handle it?
11. How is the value proposition presented and evaluated when selling a new IT solution to a customer? Do you follow up on it?
12. How can the customers become more involved in follow-ups and evaluations of how to make the best use of your services? How could you support this?

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