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Value-based Selling in Performance-based Lifecycle Services

Case study from the industrial manufacturing industry

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ABSTRACT:

Johdanto ja tarkoitus: 1980-luvulta lähtien yritysten palveluiden osuus liiketoiminnassa on kasvanut jatkuvasti. Nykyään palvelut ovat entistäkin digitaalisempia, mikä avaa yrityksille innovointimahdollisuuksia. Samalla asiakkaat etsivät yhä enemmän personoituja ratkaisuja, jotka tarjoavat pitkäaikaista arvoa ja auttavat saavuttamaan tavoitteita. Teollisuusyritykset ovat vastanneet tähän kehittämällä korkean arvon palvelukokonaisuuksia, jotka keskittyvät lisäarvon tuottamiseen laitteen koko elinkaaren ajan ja takaavat esimerkiksi tuotannolliset tulokset asiakkaille. Tällaisten korkea-arvoisten palveluiden myyminen edellyttää poikkeuksellisia lähestymistapoja verrattuna perinteiseen ratkaisu- tai tuotemyyntiin. Tämä gradu pyrkii laajentamaan ymmärrystä arvon myynnistä tutkimalla sitä performanssipohjaisten elinkaaripalveluiden kontekstissa.

Viitekehys: Tutkimuksen teoreettinen viitekehys yhdistää kaksi akateemisen kirjallisuuden tutkimushaaraa: arvonmyymisen ja palveluistumisen. Palveluistumisen teoriaosuus käsittelee muun muassa ilmiön kehitystä, tieteellisiä tutkimusyhteisöjä sekä työn kontekstin eli performanssipohjaiset sopimukset ja palvelut. Arvonmyymisen kokonaisuus puolestaan käsittelee asiakasarvoa sekä konseptiin liittyviä kyvykkyyksiä ja prosesseja.

Tutkimusmenetelmät: Työn empiria perustuu yhden tapaustutkimuksen aineistoon maailmanlaajuisessa kaivosteknologia-alan yrityksessä. Tutkimus toteutettiin haastattelemalla yrityksen ja asiakkaan edustajia viidestä maanosasta ennalta määrätyn haastattelurungon pohjalta. Tutkimusfilosofiaksi adoptoitiin interpretivismi ja subjektivismi, ja tutkimus täydentää olemassa olevaa kirjallisuutta arvon myymisestä abduktiivisesti.

Tulokset ja johtopäätökset: Tutkimuksen tulosten mukaan arvomyynnin aktiviteetit performanssi perusteisissa elinkaaripalveluissa voidaan jaotella seitsemään eri ryhmään, jotka pitkälti heijastelevat olemassa olevaa käsitystä arvon myymisestä. Tutkimus korostaa kontekstisidonnaisten elementtien merkitystä, erityisesti mahdollisuuksien tunnistamisessa, asiakkaan sidosryhmien vaikuttamisessa ja performanssi-ideologian avaamisessa. Lisäksi tutkimus tunnistaa useita kriittisiä kyvykkyyksiä, kuten sisäisen ja ulkoisen yhteistyön, arvolupauksen rakentamisen ja asiakkaalle keskeisten arvopisteiden fokusoimisen. Haasteita esiintyy erityisesti mallien, toimintatapojen, kyvykkyyksien ja kulttuurin osalta, mikä korostaa tarvetta määrättyjen kyvykkyyksien kehittämiselle ja yhteistyön tärkeydelle erityisesti yrityksen sisällä.

KEYWORDS: Servitization; Performance-based Services; Outcome-based Services; Value-based Selling

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Abbreviations

VBS	Value-based selling
PBS	Performance-based service
PBC	Performance-based contract
OBS	Outcome-based service
OBC	Outcome-based contract
SLA	Service level agreement
CAPEX	Capital expenditure
OPEX	Operational expenditure

1 Introduction

As companies and managers are facing the wave that is servitization, influenced by infusion of digital elements into the offerings, a lot of new business opportunities will arise, impacting both product and service offerings as well as processes and practices. In the industrial manufacturing field, one of the most notable emerging phenomena has been the digitization of services or digital servitization (Kohtamäki et al., 2022; Paschou et al., 2020; Sklyar et al., 2019). Simultaneously, on the other side, customers are increasingly seeking for long-term value that enables them to fulfill their different business goals through comprehensive support e.g., maintenance, repairs, and upgrades as well as other value-adding solutions that for example leverage artificial intelligence, machine learning and data analytics (Agarwal et al., 2022; Pezzotta et al., 2022).

1.1 Motivation for the study

In order to facilitate this change, manufactures have answered the call by bundling up these services together with the intention of creating value throughout the equipment's life cycle (Rabetino et al., 2015). At the same time, the nature of services has transitioned from basic provision of spare parts to advanced services where providers are taking increased responsibility and guaranteeing outcomes (Baines et al., 2013). In order to be successful in high value solutions such as performance-based life cycle services, companies must adopt different sales strategies to become more customer centric and proactive (Kamalaldin et al., 2020; Töytäri et al., 2011). Prior studies have recognized that value-based selling allows companies to differentiate by demonstrating the unique value propositions of their offerings, improve customer engagement, develop long-term relationships, and drive the overall business growth (Hinterhuber, 2017; Töytäri & Rajala, 2015). Additionally, academics have highlighted the need to align sales strategies with the nature of customers and offerings, calling for studies to expand the field of knowledge in value-based sales in different contexts (Kaario et al., 2003; Töytäri et al., 2011).

Combining the two concepts i.e., value-based selling and performance-based services provides interesting research into the different elements of value-based sales such as process/activities (Töytäri et al. 2011; Töytäri and Rajala, 2015), capabilities (Raja et al., 2020; Töytäri and Rajala, 2015), and challenges (Liinamaa et al., 2016) and expands the existing knowledge to cover complex and advanced service solutions as researched by Baines et al. (2013) and Korkeamäki et al. (2022).

1.2 Research gap

Although, value-based selling has been studied quite extensively in the academic context, some gaps remain to be answered. In their studies, Töytäri and Rajala (2015) as well as Töytäri et al. (2011) express that existing literature on value and value-based selling focuses on value-based selling as a strategy, ideology, and the concepts of value. Both of the studies call for further investigation on the practical and operational side of value-based selling. What remains sparse is the knowledge of how to manage customer value-based sales operations and what are the activities related to value-based selling (Töytäri et al., 2011; Töytäri and Rajala, 2015). Similarly, Raja et al. (2020) discuss different capabilities required from providers in order to succeed in value-based sales. Raja et al. (2020) note however that further research on the capabilities has to be conducted in order to establish whether their findings are generalizable. Furthermore, they call for studies regarding the role the customer plays in the sales process.

Similarly, the servitization research community has taken major strides to explore advanced service offerings and even performance/outcome-based services (Baines et al., 2013; Hou & Neely, 2018; Korkeamäki et al., 2022; Korkeamäki & Kohtamäki, 2020) but the point of emphasis of these studies has been in the evolution of services, associated risks and challenges as well as business models. What remains sparse is the knowledge regarding the sales activities associated with these types of services that warrant significant changes to the business model. Therefore, the identified research gap emerges in the intersection of these two concepts as presented in **figure 1**.

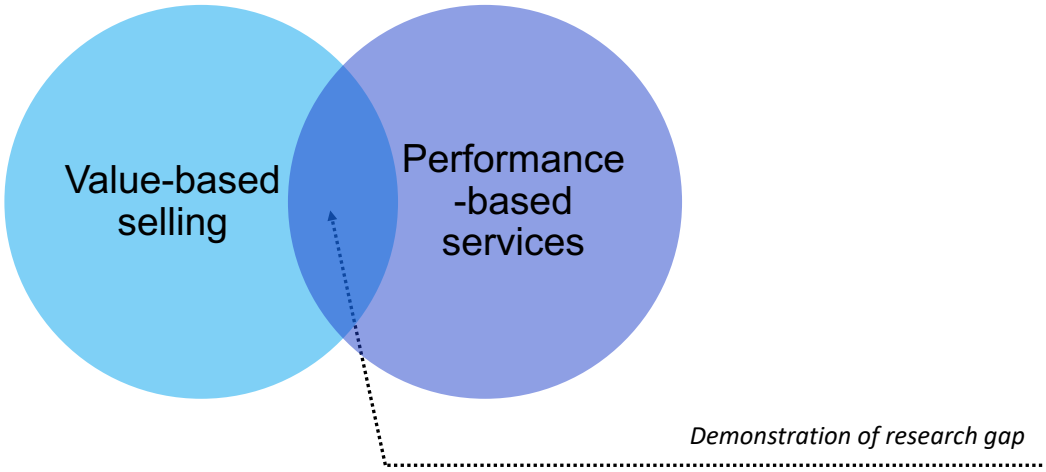

Figure 1. Visualization of identified research gap.

1.3 Research question and contributions

As the thesis sets out study value-based selling in the context of performance-based lifecycle services, the designed research question is created to provide answers to the big picture with the support of three supporting questions taking into consideration the relevant elements discussed in the literature related to value-based selling as depicted in **figure. 2**. Thus, the research question is as follows:

RQ: How to sell value in performance-based services?

The three supporting questions that enable the adequate answering of the research question are:

1) What are the activities during the process?
2) What are the enabling capabilities?
3) What are the challenges faced?

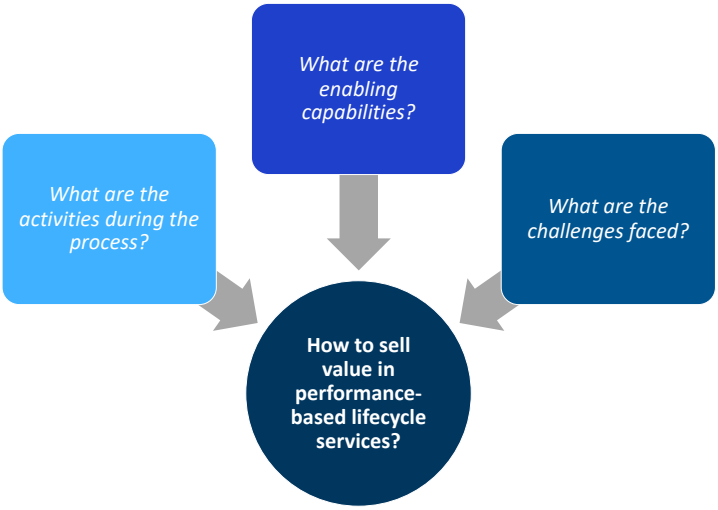

Figure 2. Illustration of research question and related supporting questions.

The contributions of this study are threefold. Firstly, it contributes to the literature by covering value-based selling as it sets out to explore value-based selling activities (Töytäri et al., 2011; Töytäri & Rajala, 2015). Secondly, it contributes to the literature by expanding the understanding about required capabilities (Raja et al., 2020; Töytäri and Rajala, 2015) as well as challenges faced (Liinamaa et al., 2016; Hypko et al., 2010). Thirdly, it contributes to the (digital) servitization literature (Kohtamäki et al., 2022; Paschou et al., 2020; Sklyar et al., 2019) by examining the integration of value-based selling and advanced service offerings which nowadays often leverage digital elements such as sensors and machine learning. While servitization indicates the shift from traditional product-centric business models to business models that are by nature service-oriented and advanced services indicate the evolution from basic spare parts provision to guaranteeing outcomes (performance) (Baines et al., 2013), the role of value-based selling has received limited attention.

1.4 Structure of the thesis

The structure of the thesis is as presented in **figure 3.** First is the introduction chapter which explains the motivation for the study, demonstrates the research gap, covers the research question and objectives, and concludes in the structure of the thesis sub-

chapter. The second chapter is designated for the literature review which consists of two separate literature streams. The first stream is related to servitization in which servitization as a concept is explored, followed by a deep dive into the different research communities surrounding the phenomenon. After this critical elements related to servitization are explored including barriers, drivers, and the adjacent concept that is digital servitization. The servitization stream concludes in the discussion of performance-based services and contracts, the context of this thesis. The second literature stream is about value-based selling, beginning with the exploration of customer value, followed by capabilities, and concluding in process perspective.

Chapter three covers the different research choices made, elaborating on the philosophy, approach to theory development and method and strategy adopted. Additionally, case selection and data analysis is discussed together with validity and reliability. The fourth chapter discusses the study's findings by first introducing the case company followed by a detail presentation of the empirical findings. The thesis concludes in chapter five by providing conclusory remarks and discussing the impacts from the academic and managerial perspectives as well as discussion about the limitations and opportunities for future research.

Figure 3. Structure of the thesis.

2 Literature Review

In the literature review section of this thesis, relevant theoretical streams for the purpose of this thesis are studied and analyzed. First servitization is discussed by finding a definition for the phenomenon and conceptualizing it by looking back at its origin story. In the following sub-chapters under servitization, the essential elements of the concept are recognized i.e., challenges and drivers and the latest research focus that is digital servitization. Lastly, both performance-based services and contracts are discussed. Thereafter the second foundational piece of this thesis i.e., value-based selling is explored by first defining customer value followed by capabilities and process. These two streams are considered in the synthesis chapter which presents the theoretical framework used in this thesis.

2.1 Servitization

Servitization can be considered a complex and multi-dimensional term referring to many different aspects related to services becoming an incremental part of companies' offerings and operations (Rabetino et al., 2018; Raddats et al., 2019). Over the years, the concept has gained new perspectives and communities, all referring to the concept through similar phenomena. Regardless of the perspective or community, nowadays the consensus is that it refers to (manufacturing) companies moving away from traditional product offerings towards services and integrated service solutions or product-service systems such as life cycle services which involve drastic changes to the way a company creates, captures and delivers value (Rabetino et al., 2018).

Furthermore, servitization can be thought of or divided into different levels based on the company's efforts beyond production competences and capabilities required to deliver the intended services (Baines et al., 2013). First and least sophisticated level of servitization is called base level services where the focus is very much on supporting the sales of traditional product offerings. These services can be considered low risk for the providers as delivering them requires only competences in the manufacturing space and the range

of activities are focused on production competences. Payments in base level services are by nature very transactional and largely paid out upon the completion of a contract. Examples of base level services include spare part provision and product/equipment provision (Baines et al., 2013; Baines et al., 2009).

According to Baines et al. (2013), the second level of servitization is identified as intermediate services. With these services the focus in on condition maintenance. Within this type of services, the scope of activities is broader and based on the provider's ability and competences to ensure the adequate state and condition of the product/equipment. Similarly, from the risk perspective, providers are subjected to greater risks as they are increasingly exposed to the consequences of equipment breakdowns and faults (Baines et al., 2013). Payments are characterized as periodic meaning that some services could be paid upfront and some on the completion of the contract or even in phases– a mix of upfront and completion payments. Examples of intermediate level services include scheduled maintenance, technical support, repair, overhaul, operator training, and condition monitoring to name a few (Baines et al., 2013).

Lastly, the most sophisticated level of servitization and the one requiring the greatest amount of effort from the provider is called advanced services. With advanced services, the focus is on providing the customer with outcomes. The range of activities is extended meaning that the provider must assume responsibilities normally only applicable to the customer (Baines et al., 2013). For example, the provider might assume the responsibility of running specific equipment in the upstream phase of the minerals processing process. Naturally, with the rise in responsibilities, so does the extent of risks. Under advanced services, providers are usually subject to financial penalties in case equipment fails to perform as specified. Advanced services tend to be multi-year contracts usually ranging from 3 to 10 years and therefore the revenue payments tend to differ from the two aforementioned servitization levels. Revenue payments follow a linear structure, meaning they are based on usage with rate adjustments made periodically. Examples of advanced level services include customer support agreement, risk and revenue sharing

contracts such as performance- or outcome-based contracts as well as equipment rental agreements (Baines et al., 2013).

Table 1. Meta-clustering of services offerings (Baines et al., 2013).

	Principle on which cluster is defined	Range of service activities	Extent of risk	Revenue payment	Examples of services offerings within cluster
Base Services	Focus on product provision	Narrow: activities centred on and around production competences	Low: easily delivered for an enterprise with manufacturing competences	Point: largely on completion of contract	Product/ equipment provision, spare part provision
Intermediate Services	Focus on condition maintenance	Broadening: based on the exploitation of production competences to assure state and condition of equipment	Medium: increased expose to the consequences of equipment faults	Periodic: some upfront and/or on completion. Maybe with interim payments	Scheduled maintenance, technical helpdesk, repair, overhaul, delivery to site, operator training, condition monitoring, in-field service
Advanced Services	Focus on outcome assurance	Extended: stretching the manufacturing enterprise to take on activities that are usually internal to the customer	High: financial penalties incurred almost immediately if equipment fails to perform as specified	Linear: paythrough-use with period adjustments in rate	Customer support agreement, risk and revenue sharing contract, revenuethrough-use contact, rental agreement

The following sub-chapters will introduce key literature related to the servitization stream. First this thesis establishes a definition, a key starting point for all type of research (Paschou et al., 2020) and discusses the different servitization-related scholarity communities. After, the thesis sheds light on the essentials of servitization: challenges, drivers and latest research trend that is digital servitization. The two aforementioned sub-chapter are building up the knowledge and context for the last sub-chapter, which introduces the performance-based services, the context in which this thesis takes place.

2.1.1 Defining servitization and its communities

As defined earlier, servitization is a complex and multi-dimensional concept, and therefore understanding the origin story of it is critical, as it creates the context from which the term rose to prominence as researchers and practitioners alike know it today. Historically companies viewed themselves as either goods (e.g. products and equipment) or services (e.g. insurance) providers, but shied away from mixing the two (Baines et al., 2009; Vandermerwe & Rada, 1988). The unclear and complex definition of servitization is perhaps rooted into the complexity in terminology related to word "services". According to Baines et al. (2009), the terminology for the word "product" is fairly well understood and in the context of manufacturing companies, pertains to a physical object, such as a car, boat, or plane. On the other hand, the term "services" does not have a similar distinctive and established definition. In fact, according to the research of Baines et al. (2009):

> *… the term "services" is more contentious, often used loosely and defined based on what they are not (i.e. a product). Here, the word "services" usually refer to an offering (e.g. maintenance, repair and insurance) (p. 554).*

The term servitization originates from the 1980s when two prominent academics; Vandermerwe and Rada (1988), introduced the term in their paper called *Servitization of business: Adding value by adding services* in which they theorized that servitization means the addition of services into the core product offerings of manufacturing companies in order to create additional customer value:

> *...the increased offering of fuller market packages or 'bundles' of customer focused combinations of goods, services, support, self-service and knowledge in order to add value to core product offerings (p. 314).*

Following the article of Vandermerwe and Rada (1988), servitization took flight in the mid 2000s with the introduction of product-service integration research and these two streams becoming almost synonymous with one another. In the new wave of servitization literature, the perspective of servitization also gained new additional dimensions. Oliva and Kallenberg (2003) call servitization the act of transitioning from physical

products to services. In these two perspectives the commonality is the notion that servitization is a transformation whereby a company must adapt from product-centric approach to service-centric approach, simultaneously causing major changes in the business model and mission of the company. Additionally, services would not anymore represent a necessary evil or a minority stake in the business, but rather a driving force or a growth engine for the company (Raddats et al., 2019).

Following the papers of Vandermerwe and Rada (1988) and Olivia and Kallenberg (2003), in her paper, Brax (2005) introduced the term service infusion in the context of servitization referring to manufacturing companies adding new service offerings into their total offering or the change that is the increase in relative significance of services compared to products. In her study, Brax (2005) find that although the eagerness, excitement, and sense of urgency to react and implement new services into the total offering is great, it should be noted that there are underlying challenges or even hazards related to the shift towards service provision, challenging the widely held implicit view that manufacturers can make the shift by adding services to their offerings one by one.

As this thesis has demonstrated, servitization has many forms and definitions which makes it a complex and multi-dimensional concept. In their study, Rabetino et al. (2018) are able to analyze the rich literature field that is servitization-related research and establish three different communities and six different clusters. As many streams and clusters discuss servitization albeit not mentioning the term specifically, it has made knowledge building increasingly difficult (Rabetino et al., 2018). Therefore, it is necessary to review articles that provide the "big picture" and elaborate on the multifaceted style of the research.

The first community recognized in the research of Rabetino et al. (2018) is **the PSS community** or the product-service system community consisting of two clusters: environmental agenda and design and development. These two clusters set out to address the questions related to sustainability and design concerns, while also proposing a model of

functional economy on eco-design and production (Rabetino et al., 2018). According to Rabetino et al. (2018), studies in this space tend to emphasize the meaning of selling functionality over products while focusing on sustainability and environmental impact as well as the incorporation of engineering approach to design and development of these systems. The sustainability stream explores the different configurations of product-service systems and their impact on the environment and economy whilst the engineering-focused cluster combines business and engineering approaches covering for example servitization strategies, value chain, PSS availability and service operations capabilities (Rabetino et al., 2018). In the PSS design cluster, the element of digital solutions is present as the studies address how different digital components can be used in the design and development of the product-service system by combining hardware, software, and services and for example using ICT-aided modelling. The PSS community is rich in terminology used, but Rabetino et al. (2018) highlight that servitization and servicification are the most commonly occurring ones while overlapping terms include functional or total care products, functional sales, and hybrid products/value bundles/value creation (Rabetino et al., 2018).

The second community recognized is **the solution business community** consisting of three distinctive clusters: operations management in service transition, customer solutions, and project-based integrated solutions (Rabetino et al., 2018). The customer solutions cluster challenges the traditional marketing paradigms, highlighting the importance of incorporating, and promoting hybrid value propositions as solutions for customers. The focal point of these studies include selling processes, customer relationship management (CRM), and value co-creation i.e., the collaborative effort of different stakeholders such as providers and customers to come together and actively contribute resources and competences to jointly create enhanced value in that specific ecosystem (Rabetino et al., 2018; Vargo & Lusch, 2004). The operations management in service transition cluster is a combination of studies in the operations management and service transition fields studying topics such as after-sales industrial services, operations strategies, and organizational change (Rabetino et al., 2018). The third cluster, project-based

integrated solutions, looks into the different concepts of operations management and strategy, integrating them and analyzing the different organizational and operational aspects related to the implementation of long-term integrated solutions-based business models (Rabetino et al., 2018). The solution business community highlights servitization as a strategic shift to providing customized long-term solutions. The research in this community focuses for example on service innovation, servitization paths, and challenges in the adoption of servitization strategies. The solution community, similar to the PSS community, uses many terms to indicate the integration of services and products to form solution-oriented business models. These include integrated solutions, service infusion, and servicization (Rabetino et al., 2018).

The final and third community identified: **the service science community** is closely tied with the aforementioned PSS community, drawing from services marketing, new service development studies, and service-dominant logic. Rabetino et al. (2018) explain that according to many scholars in this community (Baines et al., 2009; Lightfoot et al., 2013) service systems are a generalization in the service science context. Service science entails the co-creation of value through a configuration of resources connected to other service systems via value propositions, integrating people, technology, information, and organization, thus taking inspiration from the digital elements of PSS design stream in the PSS community. Combining these elements is all about aiming to foster service innovation and quality within these dynamic systems (Rabetino et al., 2018). The number of publications related to servitization research has been on the rise since the mid 1990s, taking a drastic leap in the mid 2000s. Majority of this boost can be credited towards the PSS community and solution business community whilst the service science community has remained notably compact (see **figure 4**) (Rabetino et al., 2018).

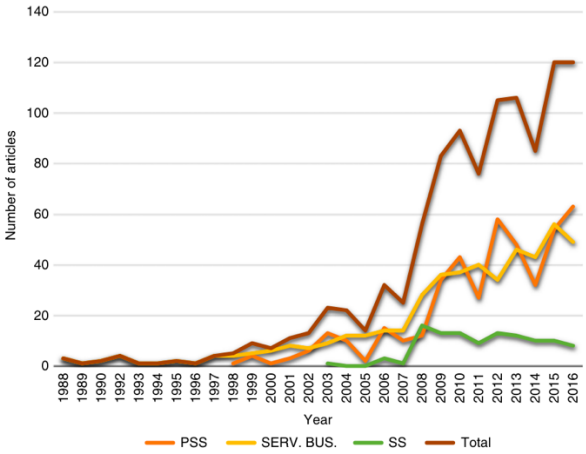

Figure 4. The evolution of the number of publications (Rabetino et al., 2018).

2.1.2 Essentials of servitization

Indeed as mentioned in the previous sub-chapter, prior studies have identified many challenges and risks related to moving towards service provision strategies and service focused business (Baines et al., 2009; Brax, 2005; Gebauer et al., 2005; Lyu et al., 2023; Oliva & Kallenberg, 2003; Slack, 2005; Vandermerwe & Rada, 1988; Wise & Baumgartner, 1999). Their studies focus on pointing out challenges and risks related to the design of different services and product-service solutions, organizational strategies, capabilities, and transformation as well as the phenomenon called “service paradox”.

According to the article of Slack (2005), the design of services is inherently different from the design of products and therefore can be a tricky exercise as the definition of them is not as clear as that of products. Additionally, when adopting servitization, companies must take into consideration the changes in the competitive landscape. They are no longer just competing against the other equipment manufacturers, but also unconventional rivals such as their own suppliers, distributors and even customers as some of them might conduct service activities on their own (Oliva & Kallenberg, 2003; Vandermerwe & Rada, 1988). Within the design space, manufacturers must also understand that some of the activities that they would have to undertake have previously been taken care by the customer, thus exposing them to additional risks that could very easily

outweigh the potential financial benefits gained from the service (Mathieu, 2001; Slack, 2005).

Similarly, transitioning from product-oriented strategy to service-oriented strategy possess its own challenges. In order for the transition to happen, cultural shift within the organization is critical. This change in the mindset of people and prioritization of service development over the source of traditional competitive advantages, requires significant changes to the way a company operates i.e., processes and structures, its historical practices and attitudes (Oliva & Kallenberg, 2003; Slack, 2005). Furthermore, companies need to face the fact that adopting service-oriented strategies means becoming more customer-centric, creating and leveraging the flourishing partnerships to create almost customized, heterogenous offerings (Baines et al., 2009). As Baines et al. (2009) conclude, implementing these changes in an organization is likely met with resistance from individuals who are afraid of the following infra-structural changes or by individuals who lack the knowledge regarding the service strategy. Critical success factor in the midst of things is the hiring and appointment of right people who are on board with the changes and understand that in providing services, the main asset of the company is its people (Baines et al., 2009).

A common view in the historical and early papers of servitization is the assumption that moving along with the servitization journey i.e., increasing the level of servitization (**figure 5**) has a positive impact on the manufacturer's economic performance – an increase in profits (Brax et al., 2021; Luoto et al., 2017). The servitization paradox stems from that very assumption when the outcome is actually reversed and the offering services designed to deliver enhanced economic value yield suboptimal performance (Kastalli & Van Looy, 2013). According to Brax et al. (2021) this can be partially explained by the emphasis of research on positive outcomes in regard to servitization such as less economic volatility, commoditization of product offerings and decreased profit margin levels. Brax et al. (2021) share a similar view and highlight that as the field of research that is

servitization matures, both academics and practitioners will come to understand the complexity of servitization and its dynamics.

However, some of the newer papers in the servitization field, studying the relationship between the depth of the transformation journey and their respective economic performances, have found mixed results. Kohtamäki et al. (2013) find a U-type relationship where the initial returns are good, then the graph dips down as the journey continues and further capabilities and competences are required and then rises again. The study of Kohtamäki et al. (2013) was conducted in the context of Finnish manufacturing companies. Eggert et al. (2014) conducted a similar study focusing on German manufacturing companies taking into consideration a wider range of measures such as revenue, profit and company value. Their findings are similar to the findings of Kohtamäki et al. (2013), establishing a U-type relationship. On the other hand, Crozet and Milet (2017) find that servitization has implicitly a positive link to company performance whereas Benedettini et al. (2015) conclude that the relationship can turn sour and be in fact a negative impactor towards economic performance. In the case of Benedettini et al. (2015), it should be noted that their study identifies two types of service offerings – demand chain and product support services – where especially demand chain services are subjected to increased risks in the environmental perspective. Although, prior studies show contradicting results, differences can be explained by the sample and design of the research. Generally, prior studies see the relationship between economic performance and servitization as “saddle” looking. In their article, Kastalli and Van Looy (2013) speculate that this is due to the different stages in servitization. In the beginning of the journey, it is easy for the manufacturers to incorporate service innovation and offerings, leading to good performance. In the next stage, companies start to struggle as their management capability, resources and organizational structure are not aligned properly to support and develop their business, leading to performance decrease. Lastly as the number of service offerings is increased, establishing scale efficiency enables the performance to soar up again.

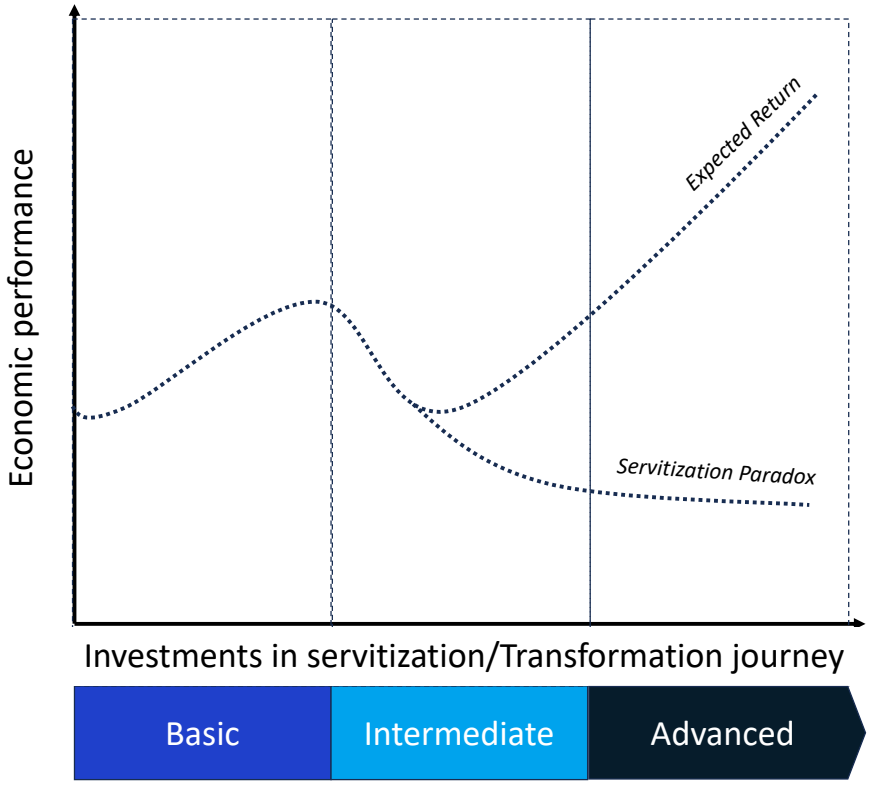

Figure 5. Illustration of servitization paradox based on the findings of Kastalli and Van Looy (2013).

After establishing challenges in implementing and executing servitization in manufacturing companies, one might ask why do companies even want servitization and what drives these companies towards it. Call for this type of studies has been answered by some academics, highlighting specific elements that cause companies to pursue service-centered strategies. These studies have recognized three sets of drivers: financial, strategic i.e., competitive advantage, and marketing (Baines et al., 2009; Gebauer & Fleisch, 2007; Gebauer & Friedli, 2005; Oliva & Kallenberg, 2003; Wise & Baumgartner, 1999).

Considering first the financial drivers, the elements rising from the studies revolve around higher levels in profitability and stability of income. According to Wise and Baumgartner (1999) these two elements are very prominent in the manufacturing space since many of the companies have high-installed bases where leveraging them enables service revenues of even hundred times greater than new product sales. At the same time, sub-industries within the manufacturing scope have experienced increases in the life cycles

of their products pushing the potential revenues down the stream towards in-service support (Baines et al., 2009). This is due to the fact that as the companies improve the quality and sustainability of their equipment, customers do not need to place in replacement orders as often, thus moving the point of emphasis from supplying the customer with new products to ensuring the availability of existing equipment. There are great examples of this shift towards downstream. For example, Rolls-Royce an aircraft engine manufacturer (among other things), invented their power-by-the-hour service (PBH) where they are responsible for keeping the engine in operative condition and charge their customers based on the hours flown i.e., the availability of the equipment. Since the introduction of the PBH model by Rolls-Royce, other engine manufacturers and third party service providers have created and designed similar offerings focusing on the service side of the business (Paschou et al., 2020). Other major concern for manufacturers tends to be the cyclical nature of their business. As times are tough and uncertainty is at high level, customers typically stay away from making any further investments, thus causing spikes and drops in the cashflow of manufacturers. Services help in evening out the cashflows as customers are required to invest in services such as maintenance and repairs in order to keep their equipment in operation (Baines et al., 2009; Oliva & Kallenberg, 2003).

The second driver identified is strategic which revolves around gaining new competitive advantages. As mentioned before, stand-alone products have become quite standardized as the markets have matured, causing differentiation with product innovation to become less of an advantage. Additionally, as differentiating has become increasingly difficult, price has naturally emerged as the deciding factor, leaving many manufacturers to ponder how to differentiate and offer superior customer value and escape the homogenous nature of offerings. Creating offerings combining products and services opens up a new playing field with competitive opportunities. Prior studies have recognized that competitive advantages achieved through services are more sustainable as they are less visible to the outsiders and more labor dependent, therefore more difficult to imitate (Gebauer & Friedli, 2005; Oliva & Kallenberg, 2003). Bundling up services with the

equipment also builds barriers for competitors to enter as the provider is also now responsible for condition and availability of the equipment. In many cases the manufacturer is the expert on the equipment and has the best knowledge on how to maintain it. Supporting this view are Frambach et al. (1997) who conclude that the potential value-add of services can enhance the customer value so much that the physical product is no longer considered homogenous but customized.

Lastly, the third driver identified is marketing where companies use services to secure more traditional product sales (Gebauer & Fleisch, 2007). According to their findings services are a component that customers take into consideration when deciding on a provider, thus influencing the decision making process. This is true to even higher degree in the industrial markets which are characterized as demanding in regard to services (Oliva & Kallenberg, 2003; Vandermerwe & Rada, 1988). Slack (2005) speculates that the reason for this is that customers are defining their core competences, looking for flexibility, and simply because the products have become increasingly technologically complex, making them more difficult to maintain in-house, thus creating pressure to outsource the services. For example, companies operating in the mining industry have real challenges in acquiring skilled labor forcing them to rely on their providers. Furthermore, services have shown evidence of increased customer loyalty, improved relationships and repeat sales all contributing towards a relationship where the customer is more dependent on the provider (Malleret, 2006). By offering services to their customers, manufacturers can gain valuable insights into the needs of their customers enabling them to develop additional, more personalized offerings (Baines et al., 2009).

After taking a deep dive into the historical background of servitization, it is necessary to understand the latest edition of servitization studies: digital servitization. Essentially digital servitization can be considered a natural extension to servitization (see **figure 6**). As we live in a world that is highly digitalized, it should not be a secret that manufacturing companies across different sub-industries are also trying to utilize the development of digital technologies in the way they create, capture, and deliver value. In their study,

Kohtamäki et al. (2022) explain that the literature lacks a crystal clear definition for the concept but that it stems from the literature streams of servitization and digitalization and is now growing from their interplay. As the servitization journey constitutes the introduction of services into the total offering of manufacturing companies to form different product-service combinations (integrated solutions) or product-service systems, digital servitization introduces the element of software into that equation to form product-service-software systems. The infusion of digital technologies such as internet of things (IoT), big data, artificial intelligence (AI), and cloud computing into the offerings of manufacturing companies enables and transforms the business models, strategies and ecosystems creating smart solutions i.e., product-service-software systems (Kohtamäki et al., 2022).

Many examples of leveraging technological capabilities in the manufacturing context exist. For example, Ardolino et al. (2018) study the Finnish elevator, escalator, and automatic door manufacturer KONE in their effort to introduce artificial intelligence, machine learning and predictive analytics to enhance the value of their integrated solutions. Utilizing sensors and IoT, KONE was able to interconnect their equipment to the cloud where the data is then processed and analyzed by the analytics engine, providing information about the equipment's condition based on all the information gathered from the installed base (Ardolino et al., 2018). Similarly, Swedish automotive manufacturer Scania has been able to test totally autonomously operating trucks and hauling equipment at their customers sites, leveraging their digital capabilities e.g., autonomous solutions (Kohtamäki et al., 2022).

Companies introducing technological solutions into their offerings have been able to take drastic leaps in their (digital) servitization journey enabling them to become for instance availability and performance providers beneficiating from the beforehand unimaginable capabilities such as remote diagnostics, remote monitoring, and predictive analytics.

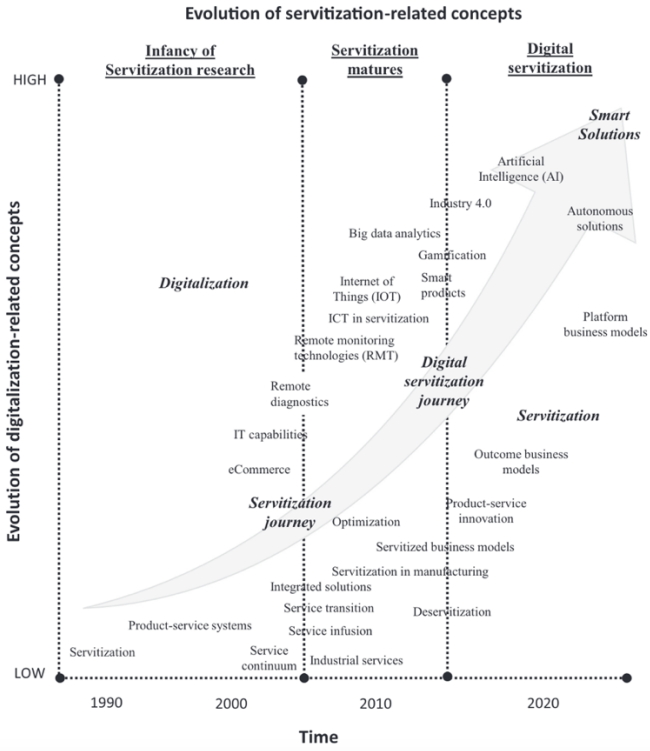

Figure 6. The evolution of the digital servitization concept (Kohtamäki et al., 2022).

2.1.3 Performance-based services and contracts

As established in the earlier chapters of this thesis, servitization and the journey that it is, can be divided into three different levels called basic, intermediate, and advanced (Baines et al., 2013). Companies introducing performance-based services into their offering belong to the advanced category and the far end of the spectrum as the level of commitment, competences, and capabilities required to deliver these services successfully is high. Performance-based services or PBS is academically a challenging term. In fact, in the academic literature multiple different terms are used to describe similar concept. These include for example the already recognized performance-based services (PBS), performance-based contracts (PBC), outcome-based services (OBS), outcome-based contracts (OBC), service level agreements (SLA), and advanced product-service systems (Kim et al., 2022; Korkeamäki et al., 2021; Ng et al., 2013). These terms all refer to the same phenomenon where manufacturers move from selling products

(transactional relationship) to selling results/performance/outcomes leveraging on the relationships built with the customers (relationship-centered) (Korkeamäki et al., 2021).

For the purpose of simplicity, this thesis from now on uses the term performance-based services when discussing solutions (in the lifecycle services context) designed to deliver specific results or outcomes and performance-based contracts when discussing the specific contractual agreements between the supplier and customer as these are in use in the case company. To further define the concept that is performance-based services, it refers to service offerings where providers are at least to certain degree reimbursed based on the outcomes they are capable of producing instead of the time and materials used to conduct different service activities such as maintenance work on the equipment (Korkeamäki et al., 2021; Ng et al., 2013). According to Korkeamäki et al. (2021), the traditional perspective where manufacturers provide services such as repairs and maintenance is essentially perverted. This is due to the fact that providers are compensated based on the failure and perishability of their products. For example, the time and materials required to fix the issues in the equipment are determinants regarding the final cost. Now, it is totally normal and acceptable that industrial equipment need to be maintained as they wear, but Korkeamäki et al. (2021) are right that the traditional logic basically encourages the providers to “lower” the quality of their equipment or at least not to maximize the durability in search of additional sales – more the equipment needs maintenance, more the provider generates revenue. When the provider and customer have a performance-based contract in place, the provider carries a certain responsibility i.e., delivering the outcome and is often subjected to financial penalties in case those are not achieved, motivating the provider to seek for improvements benefiting both of the parties involved (Ng et al., 2013). Additionally, the provider has to consider different profit and loss (P/L) items from a new perspective. For example, the different inputs and activities that used to drive the profitability are now considered costs that the provider must incur, hurting its profit margin (Korkeamäki et al., 2021).

Performance-based contracts and specifically its design and management can be conceptualized in three different dimensions (Selviaridis & Wynstra, 2015). These three dimensions are called performance, risk, and incentives which in turn are all connected to one another, forming a basis from which knowledge can be developed (see **figure 7**.)

The performance dimension constitutes for the fundamental logic in performance-based contracts. It consists of practices and processes of specifying, measuring and reporting performance. Putting together a PBC requires close collaboration with the customer in order to identify relevant outputs or outcomes, decide on applicable key performance indicators and establish how these are monitored in a way that allows effective measuring of the supplier's performance i.e., that they are delivering the desired outcomes. It is critical that these are done appropriately as then accurate compensations can be performed or take corrective action in case alterations have to be made (Selviaridis and Wynstra, 2015).

The incentives dimension refers to both financial and non-financial incentives and their structure. The word structure indicates the design and establishment or rules that guide the PBC throughout its life cycle. Financial incentives include the parties involved agreeing on the payment scheme, meaning financial rewards for succeeding and penalties for failing as well as their severity and orientation. The payment scheme or payment model can alter case-by-case, but is always essentially connected to predetermined KPIs (Hypko et al., 2010). Hypko et al. (2010) clarify that PBCs have essentially three different payment model options: based on availability (e.g. Power by the hour), units produced i.e., production outputs (e.g. Cost per Ton), and customer's economic results. Non-financial incentives are related to behavioral aspects on both the supplier and customer side. The idea is to mitigate opportunistic behavior where one party benefits at the expense of the other. For example, the customer might be able to build competences and capabilities after the supplier has educated them, enabling them to terminate the contract. On the other hand, a good relationship (partnership) can be a fruitful incentive to innovate, benefiting both the customer and supplier (Selviaridis and Wynstra, 2015).

Lastly, **the risk** dimension refers to the dynamic of the relationship between the supplier and customer, where the supplier assumes some of the operational and financial risks, beforehand only applicable to the customer. The essential element in PBC that is risk transfer occurs due to the supplier taking over the operational responsibilities of specific equipment or parts of the production (Selviaridis and Wynstra, 2015). However, as Selviaridis and Wynstra (2015) highlight, suppliers can be quite averse for additional risks especially when they perceive that there is lack of control over the performance, leading to different attitudes that can weigh on the relationship and hamper the effectiveness of the service.

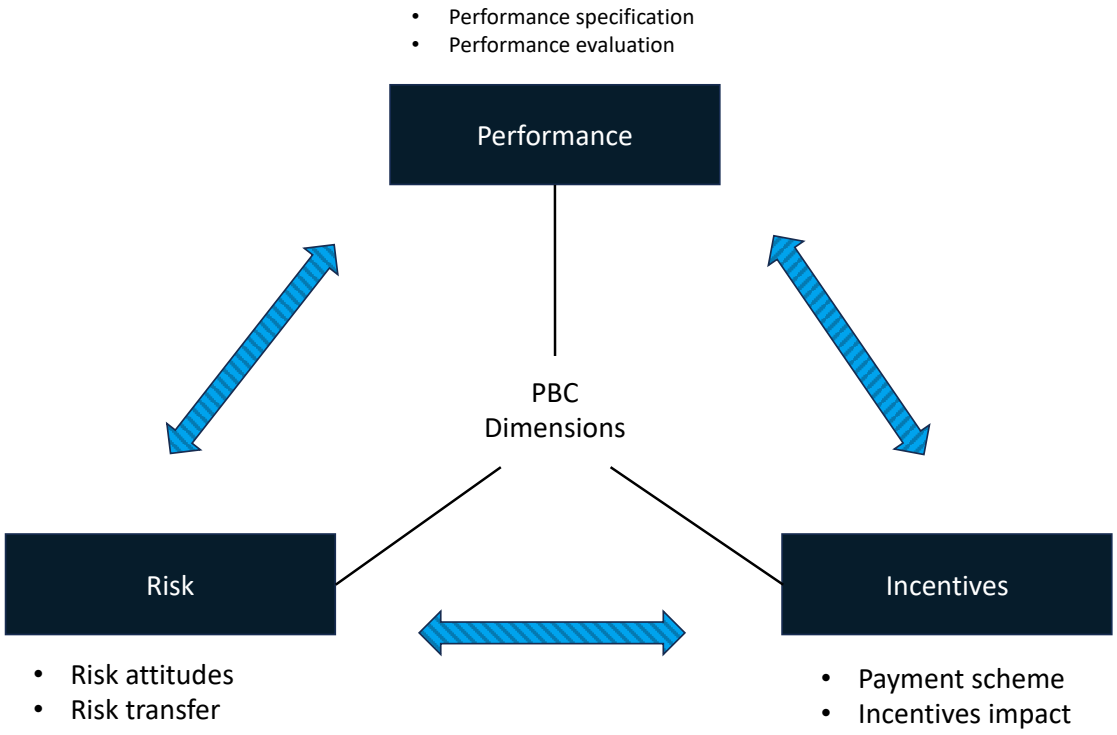

Figure 7. Model of PBC (Selviaridis and Wynstra, 2015).

In addition to its definition and design, performance-based services as implied indirectly in the previous sub-chapter constitute a change in the business model of a company (Korkeamäki & Kohtamäki, 2020; Ng et al., 2013; Selviaridis & Wynstra, 2015). Upon

taking an increased responsibility that is the concept of offering guaranteed outcomes, the logic of how value is being created, captured and delivered changes (Sjödin et al., 2020). Compared to the traditional business model used for traditional equipment-based services, Ng et al. (2013) recognize three categorical changes that can be interpreted by the strategy literature. Firstly, as explained before, traditional service contracts tend to cause opportunistic behavior due to lack of alignment in incentives. With PBC, the incentives of the two parties are aligned by the structure of mutual orientation, mitigating or at least lowering the level of opportunistic behavior (Kale et al., 2002; Ng et al., 2013). This is in line with the view of existing strategy literature that argue that as both sides of the coin carry ownership of the entity that in this case is the desired outcome, both sides become mutual hostages of the situation enabling them to effectively work together towards the outcome (Ng et al., 2013; Teece et al., 1997).

Secondly, as referred to in the PBC design section, risk transfer from the customer to the provider enables a unique opportunity to integrate different resources and competences for value co-creation in the production process, enabling the provider to extract better rents or economic performance. This is possible due to the increase in responsibility and motivation to design and implement higher quality products and develop capabilities related to repair and logistics activities such as spare-parts inventory optimization (Ng et al., 2013).

Lastly, implementing and operating performance-based business models can be perceived as a competitive advantage itself, as they require exceptional coordination, cooperation, and collaboration capabilities. Moreover, development of these capabilities enables the provider to further expand its performance-based business and extract better financial performance from the market. This extraction potential could incentivize providers to commit beyond the terms and conditions of the contract, while simultaneously increasing the mutual orientation and turning the contract into self-enforcing agreement (Ng et al., 2013).

2.2 Value-based selling

As the markets have become increasingly competitive, characterized by influx of competition and their effort to differentiate, this has caused commoditization and eroding profit margins across industries, leading manufacturing companies to turn to new sources of competitive advantage. Simultaneously and partially as a result of it, companies are pivoting away from selling traditional products to offering solutions by implementing sales approaches and strategies that extend past products and services, prioritizing the delivery of value and tangible business outcomes. This has enabled value-based selling to rise to prominence (Keränen et al., 2023). The term itself has many different forms. Many academics and practitioners alike use the term value-based selling (Terho et al., 2012; Töytäri & Rajala, 2015), whereas others use value selling (Manning et al., 2013; Siegmund, 1999) and some attach the concept to the servitization stream by talking about it in the context of solutions (Salonen et al., 2021; Töytäri, 2018).

Selling strategies vary according to the way they present value (Töytäri et al., 2011). Traditional product and services selling addresses salient customer needs and should therefore be aligned to the purchasing process of a customer. On the other hand, solution selling aims at recognizing challenges that the provider's offering can help to address and is related to the customer's use process (Töytäri et al., 2011). Töytäri et al. (2011) express that value-based selling can be viewed in contrast to the two aforementioned strategies as it differs in what it addresses in the customer and what customer process it focuses on. Kaario et al. (2003) conceptualize that it refers to understanding and improving the customer's business in a proactive matter:

> *The selling of value is about selling – not products, services or solutions but – business impacts that result in increased profits for the customer (p. 9).*

Value-based selling, especially in the advanced service solution context, constitutes a change in the business logic. Companies adopting value-based selling approaches have to replace the old product logic characterized by value capture-focused strategies with

solution logic, leaning towards value creation-focused strategies (Töytäri, 2018). Selling and implementing service solutions require a customer-centric, relationship based approach where alternatives are evaluated based on value created, leading to long-term value creation agreements where the value of the offering is perceived in use situations (see **table 2**.). Similarly, value-based selling encourages to value-based pricing where value sharing refers to the actual value created rather than the supplier's cost and adequate profit margin (Hinterhuber, 2004, 2008).

Table 2. Key differences between value capture and value creation-focused strategies (Töytäri, 2018).

Key dimensions	**Product logic**	**Solution logic**
Exchange focus	Transaction	Relationship
Optimization focus	Exchange value (e.g. capex)	Use value (e.g. capex and opex)
Exchange scope	Product	Solution
Temporal focus	Short-term	Long-term
Relationship logic	Independence for value capturing power	Partnership for joint value creation
Initiator	Buyer	Seller
Market phase	Commoditized	Innovation
Solution vision	Buyer's	Jointly created
Value sharing reference	Supplier cost	Customer value

However, value-based selling is not the right strategy in every situation. Töytäri et al. (2011) explain that the different sales strategies can co-exist within an organization and that the selection of the strategy should be evaluated case-by-case based on the characteristics of the customer. In fact, these ideal characteristics for value-based selling can be divided into two dimensions – the customer's willingness to partner and the value of the relationship (Kaario et al., 2003). From the **figure 8.** beneath, one can see that when both of the measures are high, value-based selling strategies are effective. When one of the measures is low, either solution or product/service selling is effective, and when both measures are low, traditional product/service selling is the most appropriate strategy.

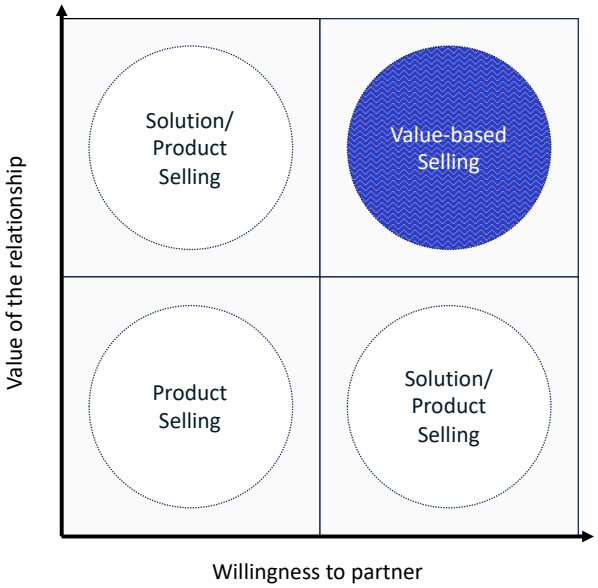

Figure 8. Customer fit for value selling adopted from Kaario et al. (2003).

2.2.1 Customer value

The concept of value has been widely discussed in the academic literature (Bowman & Ambrosini, 2000; Terho et al., 2012; Töytäri, 2015; Vargo & Lusch, 2004; Woodruff, 1997; Zeithaml, 1988), and depending on the perspective such as customer, provider, and relationship (Terho et al., 2012), it has gained differentiating elements, skewing the definition one way or another. However, the definition of Zeithmal (1988) that value is trade-offs between benefits and sacrifices or an equation where total customer costs (i.e., sacrifices) are deducted from the perceived customer benefits thus totaling to the overall value, has been held generally acceptable. In his article, Woodruff (1997) addresses the differences in definitions and concludes that typically these differences can be traced back to the way these different definitions have been constructed. Generally, these definitions have built their foundation using alternative terms like utility, value, advantages, and quality. The issue in doing so is the fact that these terms themselves tend to have complicated and complex definitions, making the comparison of concepts difficult. Crucially, Woodruff (1997) also establishes some areas of consensus. Firstly, he explains that customer value is inherently connected to the use of some product. Secondly, customer value is not something that the seller can objectively establish but something that is

perceived by the buyer. Lastly, Woodruff (1997) highlights the aforementioned concept of trade-offs as a commonality.

When considering and defining customer value, it is critical to understand the importance and impact of different factors, particularly time. Time in this context refers to the timing of assessment or evaluation of value by the customer. For instance, in his article Woodruff (1997) identifies two different times when customers think of value: during or prior to purchase and during or after usage. Both of these time windows provide totally different contexts that shape the way customers think of value. At the time of purchase or prior to that, customers weigh in on different attributes and alternatives formulating and imagining what value they want (i.e., desired value) (Woodruff, 1997). As the seller and customer discuss and explore different options, the customer starts to assess the different benefits and sacrifices related to selecting that particular provider and their service and/or product. In terms of the different benefits and sacrifices, customers focus on aspects such as quality, features, price and time. This process of assessment formulates the perceived value or in other words the value customers expect to gain with the purchase.

The second time frame is related to the use of the product or after it. During usage, customers are influenced by the perceived value and additionally, are now able to evaluate the realized benefits and sacrifices and form opinions and feelings about the actual value experience of using the product (i.e., received value) (Woodruff, 1997). This rather retroperspective outlook on customer value highlights the significance of value-in-use i.e., the value that realizes for the customer upon usage of the product/service in their value-creating processes (Grönroos, 2008; Terho et al., 2012; Vargo & Lusch, 2004). Notable is also the fact that customers think of different value elements at an altering emphasis depending on the time frame. For example, during or after the use stage, customers typically prioritize the performance or results of the product and/or service, whereas product/service attributes tend to be emphasized at the buying stage (Woodruff, 1997).

Based on the differences and commonalities found by Woodruff (1997) as well as the incorporation of desired and received value, they propose the following definition:

> *Customer value is a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations (p. 142).*

Based on his definition of customer value, a means-end type of customer value hierarchy model was developed (see **figure 9**). His model indicates that first customers view products and services as bundles of attributes and attribute performances, after which during the use phase, Customers develop preferences for particular attributes based on their capacity to produce desired outcomes. Lastly, customers come to favor specific outcomes as they aid in attaining desired objectives and intentions. Likewise, working from the top-down, customers leverage goals and intentions to assign significance to outcomes which in turn guide selecting specific attributes and attribute performances (Woodruff, 1997). Furthermore, the model depicts the received value as well and shows that customers evaluate value according to similar structure.

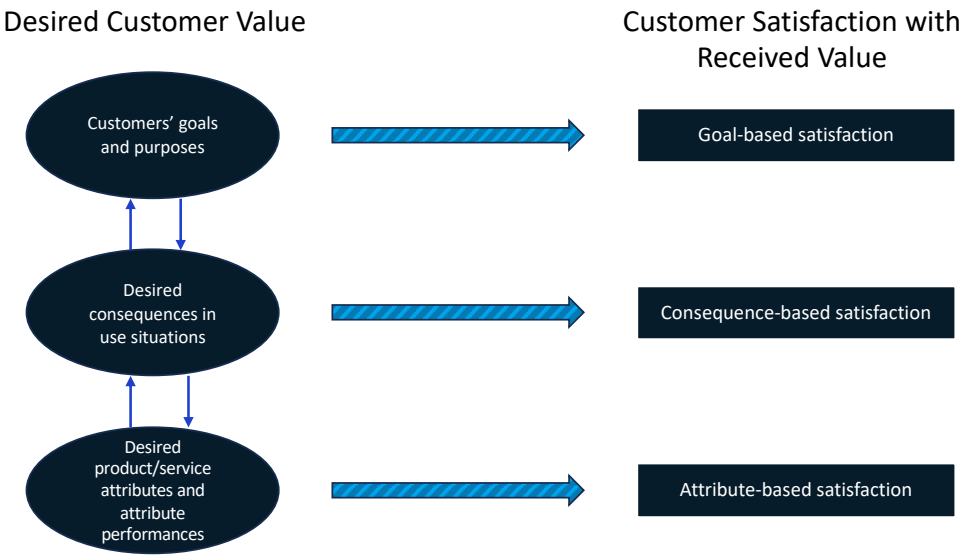

Figure 9. Customer value hierarchy model (Woodruff, 1997).

Similarly, from the customer's perspective, Töytäri and Rajala (2015) and Kowalkowski (2011) highlight that customer perceived value is context specific and dynamic as well as different for each beneficiary. Because each business situation is unique which in turn guides the evaluation process, perceptions are formed case by case and may change over time (Töytäri & Rajala, 2015). Furthermore, value is future-oriented, meaning that most of the benefits and sacrifices will come to fruition over a long period of time, underlying the significance of longitudinal relationship and facilitating value-based selling (Töytäri & Rajala, 2015). Additionally, perceived customer value is heavily influenced by different value drivers impacting either the perceived benefits or sacrifices (Lapierre, 2000). In his study, Lapierre (2000) depicts that these drivers can be viewed through three distinctive lenses: product, service and relationship.

In addition to the customer perspective, Terho et al. (2012) introduce two other perspectives: seller and mutual or dyadic (see **figure 10**). From the seller perspective, the literature offers three research streams. The first stream emphasizes that the value for the company is created through the management of its internal activities or value chain that is support activities such as procurement, and primary activities such as marketing and sales (Terho et al., 2012; Porter, 1985). The second stream suggests that not all customers are equal and value-wise similar for the company, and that the value differs across different customer segments. Lastly, the final stream emphasizes value creation for the shareholders, which is the primary task of any given company (Terho et al., 2012).

The mutual perspective that is dyadic value has four related research streams. Stream one is concerned with creating and delivering superior customer value, indicating that the company's success is depended on the extent to which they deliver something of value to their customers (Terho et al., 2012). The other three streams (value distribution, relationship value and value co-creation) are closely related. Studies on relationship value emphasize how relationships contribute to value creation, while value co-creation posits that value is not inherent in a company's output or exchange value, but instead materializes during the consumption phase (value-in-use) of customers' value-

generating processes (Grönroos, 2008; Vargo & Lusch, 2004). Lastly, value distribution research focuses on how the value created in collaboration between the customer and seller is shared in a fair and just way (Terho et al., 2012).

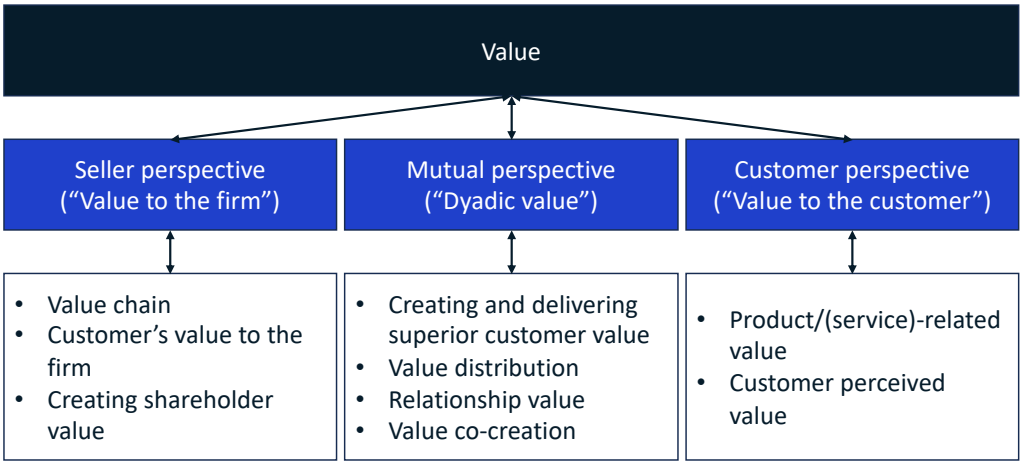

Figure 10. Three perspectives on value adopted from Terho et al. (2012).

2.2.2 Capabilities

When discussing the capabilities required to implement value-based selling (VBS) in an organization, the literature has many different perspectives (Liu et al., 2023; Raja et al., 2020; Storbacka, 2011; Terho et al., 2012; Töytäri, 2018; Töytäri & Rajala, 2015). The original studies on value-based selling capabilities highlight that VBS can be divided into two stage activity model consisting of planning and implementation (Töytäri & Rajala, 2015). In their study Töytäri and Rajala (2015), add a third stage called leverage through their empirical findings. These three stages enable the academics and practitioners alike to see VBS from a process-like perspective. Each of the high level capabilities i.e., planning, implementation and leverage (Töytäri & Rajala, 2015) can be divided into sub-level capabilities that account for the high-level headers (see **table 3**.). In their updated three stage model, Töytäri and Rajala (2015) explain that the planning stage consists of target segment and stakeholder group identification as introduced by Storbacka (2011). Similarly, value analysis, value proposition development and sales tools preparation are elements of the planning stage. The second stage, implementation, consists of customer

selection and stakeholder identification, trust and credibility building, value proposition communication as well as vision building, value quantification and value sharing. The additional leverage stage includes value verification and development of case repository (Töytäri & Rajala, 2015).

In their study, Raja et al. (2020) offer relatively similar framework for understanding the VBS capabilities (see **table 4**.). Their three stage process-like model includes customer identification and analysis, implementation and verification of value. During the first stage, key capabilities consist of customer segmentation, customer value analysis, development of sales tools and development of value proposition (Raja et al., 2020). In the second stage that is implementation, fostering of trust and building reputation as well as value creation and communication are key capabilities. In the last stage quantification and value assessment, value capture and knowledge management are highlighted.

Table 3. Key VBS capabilities (Töytäri & Rajala, 2015).

Planning	**Implementation**	**Leverage**
Target segment and stakeholder group identification (Storbacka, 2011)	Customer selection and stakeholder identification	Value verification (Anderson et al., 2007)
Value analysis (Flint et al., 2002)	Trust and credibility building	Development of a case repository (Storbacka, 2011)
Value proposition development (Anderson et al., 2006)	Value proposition communication (Anderson et al., 2006; Ballantyne et al., 2011)	
Sales tools preparation	Shared solution vision building (Eades, 2004)	
	Value quantification	
	Value sharing and profitability management (Hinterhuber, 2004)	

Table 4. VBS capabilities (Raja et al., 2020).

Customer Identification & Analysis	**Implementation**	**Verification of value**
Customer segmentation	Fostering trust and building reputation	Quantification and value assessment
Customer value analysis	Value creation and communication	Value capture
Development of sales tools		Knowledge management
Value proposition development		

As one can see, these two models by Töytäri and Rajala (2015) and Raja et al. (2020) are both very similar and consist of capabilities that are the same thing in other words or depicting similar phenomena. Furthermore, as these models are created on the basis of process framework, they depict time as the dividing factor, meaning that as the sales process moves forward, so do the capabilities required to execute the VBS strategy. In their paper, Terho et al. (2012) study value-based selling from an approach and behavior point of view and conceptualize that VBS can viewed through three distinctive categories, highlighting many of the capabilities recognized by Töytäri and Rajala (2015) and Raja et al. (2020). What is different in the categorization of Terho et al. (2012), is that their framework does not use time as a dividing element. They rather emphasize the over-arching themes that define VBS.

Firstly, understanding of customer's business and business model is being pointed out. This perspective demonstrates that providers must develop understanding of how the potential customers conduct their business, processes and practices – how they earn their profits i.e., earnings logic (Terho et al., 2012). Gaining this deeper level understanding regarding the customer's business, enables providers to sell beyond the expressed needs and focus on the key value drivers relevant to that specific customer (see e.g. value analysis). Additionally, understanding of the different customers' business models allows the provider to recognize patterns in their customers, helping them in identifying

specific target groups (see e.g. customer segmentation) (Töytäri & Rajala, 2015). Similarly, as the provider is developing further understanding regarding the customer's business, they should focus on identifying relevant stakeholders that contribute towards the investment decision making in the customer's organization. Storbacka (2011) explains that in the industrial context, providers develop value propositions for specific target stakeholders as these propositions have to resonate with the target audience in order to be effective, emphasizing the point of finding the correct stakeholder. Furthermore, from the resonation perspective, it also critical that the value propositions themselves are designed to resonate focus, meaning that instead of highlighting all benefits, they communicate one or two key value elements that through improvement will deliver superior customer value (see **figure 11**). Here, the capability of understanding customer's business and ability to recognize relevant value drivers for that specific customer are again highlighted (e.g., value analysis) (Anderson et al., 2006).

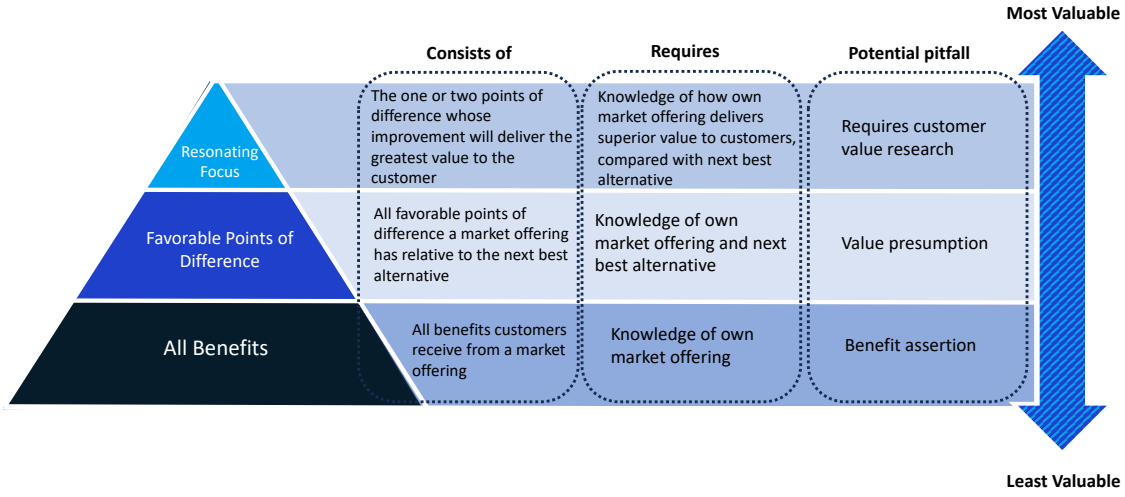

Figure 11. The value of a value proposition developed from Andersson et al. (2006).

Secondly, Terho et al. (2012) point out crafting of the value proposition as a distinguishable category. An essential aspect of VBS involves actively identifying customer challenges and crafting solutions with significant potential to enhance the customer's profitability (Terho et al., 2012). Having understood the business models of different customers, providers are able to pre-craft value propositions according to certain observations

in specific customer segments. However, as mentioned, providers must then adapt these propositions according to the individual needs, drivers and goals of their target customer and stakeholder (Töytäri & Rajala, 2015). As defined in the customer value chapter, value can be seen as bundles of benefits and sacrifices, which are communicated by the value propositions by highlighting either improved benefits or reduced sacrifices. Raja et al. (2020) for example point out the significance of customer value analysis capability enabling the provider to identify value elements in the customer's business process that could be improved. These bundles of benefits and sacrifices presented in the value proposition must be connected and expressed through their impact and influence on the customer's business goals (Raja et al., 2020; Töytäri & Rajala, 2015). Key capability in this context is value quantification. This capability refers to different methods used to demonstrate the monetary implications of the offering in customer's use situations (Terho et al., 2012). Examples of different methods include value calculations, simulations, return-on-investment studies, lifecycle calculations as well as reference cases from similar situations (Terho et al., 2012). Providing quantification of the value requires development of sales tools such as value calculators, reference cases/stories (see development of a case repository) and stakeholder-specific conversation guides. Similarly, establishing shared routines and best practices help the sales force develop and consistently operate according to the best practice (Töytäri & Rajala, 2015).

Lastly, Terho et al. (2012) highlight communicating the value as the third category. A foundational piece in value-based selling is a healthy buyer-seller relationship that is based on trust and credibility. As the value orientation in VBS is in the future (value-in-use), this can cause ambiguity and will increase the perceived risk (Töytäri & Rajala, 2015). Therefore, transparent sharing of data, information and perceptions of experienced value is critical and calls upon the provider to present evidence such as the aforementioned quantified reference cases and numerical figures regarding the implications. It is critical that the provider is able to establish trust and credibility as those act as a prerequisite for a fruitful relationship (Terho et al., 2012; Töytäri & Rajala, 2015). A common challenge in the value proposition communication is the alignment of views of both the

provider and customer. Töytäri and Rajala (2015) explain that there are two options for reaching alignment. Provider can either influence the stakeholder to agree with the value proposition or the value proposition can be adapted as expressed in the previous sub-chapter. In VBS and especially in the context of advanced service solutions, it is typical that value-creation opportunities are identified and developed in collaboration with the customer, emphasizing the significance of shared solution vision building capability. This helps the alignment process as customer expectations and requirements are discussed openly enabling the provider to influence the stakeholder's views. This also highlights the importance of proactiveness over reactiveness in VBS (Töytäri & Rajala, 2015). In the collaborative processes, value propositions can be co-created, mitigating the gap that is the differences in the views, perceptions and goals of stakeholders (Ballantyne et al., 2011). Additionally, during the customer's use phase, it is important that the value created is documented, verified and reviewed periodically together with the customer as this enhances the relationship/partnership and strengthens the trust and credibility. The verification capability is also interlinked with the value sharing and profitability management capability. As the value co-created is measured and verified, these should be then reflected on the value captured so that each party gets their fair share of it. This requires bargaining power and value-based pricing capabilities that indicates that reimbursement of the provider is connected to the performance achieved (Töytäri & Rajala, 2015).

2.2.3 Process

Considering VBS from a process perspective requires a deeper understanding about the different elements related to the context in which VBS takes place. First element to consider in the broader landscape of VBS process is the customer's buying process. Organizations, their employees, and partners are bound by their shared commitment towards achieving specific goals that they set for themselves. These social structures build to support the collaboration to achieve established objectives, employ these goals to guide the decision-making by offering criteria for choosing among various alternatives. (Töytäri, 2018). According to Töytäri (2018), if these goals are set correctly, they should aid in

identifying and selecting the value creation opportunities with the greatest potential value. Companies then mobilize action by developing business models, organizational structures, management systems and incentives to reach the selected goals. Furthermore, organizations can also be described as a sum of different hierarchical levels. These levels also reflect the set goals as different challenges that are identified impede the organizational level from achieving their goal(s), so they delegate these challenges further to the next level, making the identified challenges the next hierarchy level's goal(s) (Töytäri, 2018). This logic runs through the organization from top to bottom, creating a goal hierarchy which in turn initiates renewal displayed as buying activities as the different levels are trying to overcome their respective challenges (see **figure 12**).

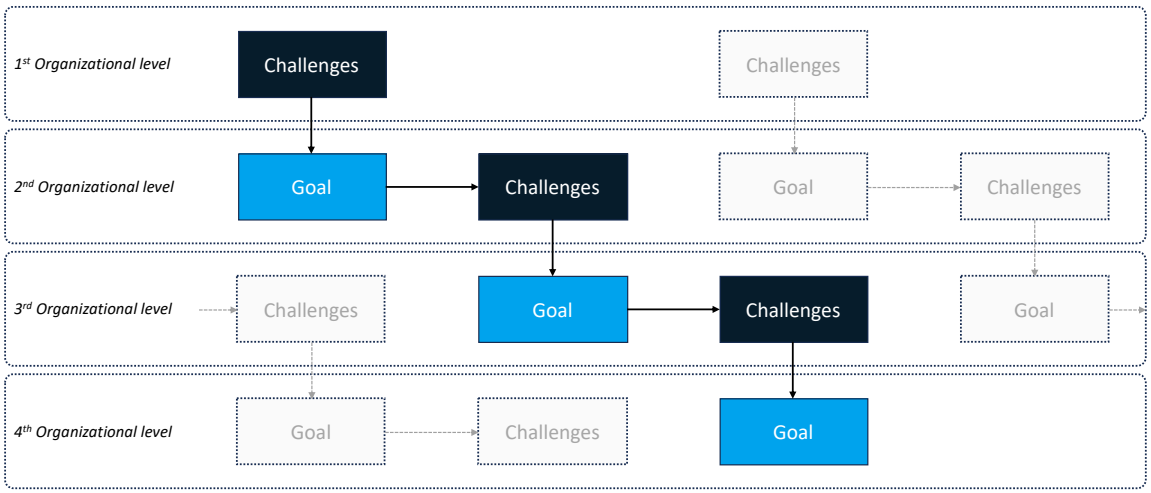

Figure 12. Organization as a goal hierarchy (Töytäri, 2018).

In order to achieve the goals, set by the higher level business challenges, companies seek for solutions that outside providers are offering. In his study, Töytäri (2018) explain that this goal-driven approach towards buying consists of four different stages (see **figure 13**). During the first stage, customers assess their current situation and evaluate what is required to reach the desired future situation. Having identified the disparity between the present circumstances and the envisioned future state and the related challenges and constraints, customers are then able to justify action (i.e., engaging in the buying process). It is at this stage when the customer starts to vision the solution that will help to

bridge the identified gap. Soon after, the customer has developed a solution vision based on the goals, challenges and constraints, and starts to identify alternative offerings from the market. Rarely does a perfect match exist, and the customer usually has to adapt the solution vision based on the different options available which maximizes the value creation potential and minimizes the risks. Lastly, the customer has to make a decision and reach a contractual agreement with the provider (Töytäri, 2018). Aspects to consider include the PBC elements discussed in the chapter *2.1.3 Performance-based services* and illustrated in the ***figure 7****. Model of PBC*. These include value co-creation arrangements, roles and responsibilities that is for example the extent to which the provider is in charge of running the customer's production process. Pricing and more broadly value sharing has to be decided (i.e., to what extent is the payment fixed versus performance-based, and what are financial implications for over- and under-achieving). Similarly, overall terms and conditions have to be agreed upon (e.g., what is it that we want to achieve, applicable KPIs, follow-up protocol etc.) (Selviaridis and Wynstra, 2015).

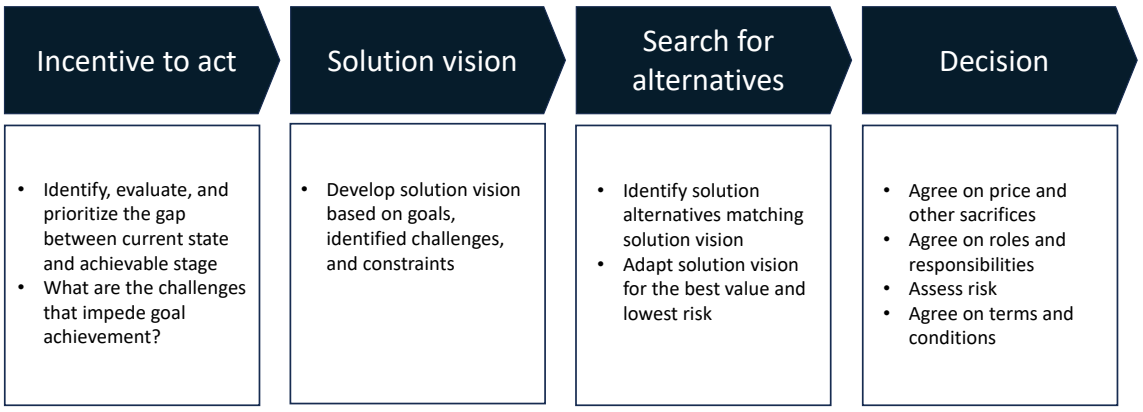

Figure 13. Goal-driven customer's buying process (Töytäri, 2018).

Second element to consider is the provider's selling process. Selling process or sales process in itself is relatively complex term and in literature, poorly defined if at all (Kaario et al., 2003; Töytäri, 2018; Töytäri et al., 2011; Viio & Grönroos, 2014). Viio and Grönroos (2014) offer a definition for both terms. According to them, sales process as a term refers to and adopts a broader, more strategic perspective on sales process activities and sales process models, whereas selling process refers to the activities undertaken during sales

work at the individual salesperson level. However, Viio and Grönroos (2014) recognize that these two terms are often used interchangeably in sales research and literature. Similarly, the uniqueness of selling processes is highlighted, indicating that each organization has their unique sales process which in turn is divided into different activities that are then executed according to the best know-how of individual salespeople.

As mentioned, sales process consists of different strategic stages that are then executed in selling process i.e., different value-based selling activities. In his article, Töytäri (2018) classifies value selling activities into three categories. (1) Relationship activities, meaning activities designed to identify relevant decision makers, develop the quality of the relationship, and enable information exchange and value communication. (2) Value activities, meaning activities that develop, adapt, communicate and quantify value to influence the customer and proceed with the buying process. (3) Control activities, meaning activities that gain commitments and formulate shared plans to keep the buying and selling processes aligned. Similarly, Töytäri et al. (2011) highlight activities that characterize value-based sales approach. They suggest that value-based sales is by nature a customer-centric explorative process, underlined by value quantification and customer validation during each stage which aim at value creation for both the customer and provider. They identify the following eight elements and activities:

1. **Identifying suitable customers:** Customers with strong relationships and willingness to commit as well as the ability to provide them with offerings where real value is underestimated or unknown (e.g. solutions combining products and services).
2. **Understanding the customer's business and the positioning of the firm's own offering to deliver business impact:** The ability of the organization and salespeople to understand the customers' and customers' customers' businesses, the key value drivers and challenges as well as the ability to understand how the provider's offering can bring value to the customer.

3. **Involving the customer in the value assessment process and setting mutual targets:** Conducting the value analysis in the presence of a customer, preferably in cross-organizational teams where the targets for the analysis are set in collaboration and analysis is conducted holistically.
4. **Quantifying business impact in cooperation with the customer:** Business impacts are quantified in collaboration with the customer through the use of for example value calculators, as numbers generated internally by the provider can be difficult to trust, especially if the logic is difficult to understand.
5. **Tying price to realized value:** Implementing value-based pricing (e.g. PBC) schemes proofs provider's commitment to the customer while simultaneously minimizing customers' risk in case the offering fails to deliver the intended value.
6. **Verifying and documenting realized value post-purchase:** Collecting data and continuously documenting the realized value in use situations in customers' value generating processes so that it can be compared to selected KPIs to monitor performance and initiate performance improvements.
7. **The importance of reference cases:** Utilize relevant i.e., similar past cases to demonstrate the value of the offering, especially in cases where value calculations lack credibility.
8. **The expertise-based skill set required from "value-based sales forces":** Value-based sales organizations require different capabilities, seldomly found in traditional product sales organizations.

Based on the eight identified activities and elements, Töytäri et al. (2011) propose a process framework (see **figure 14**), enabling the provider to firstly uncover the value elements specific to that customer segment or customer. Secondly, provide the customer with believable calculations and references that demonstrate the potential value of the offering. Lastly, facilitate value-based capabilities that enable effective communication of value. In addition to the model of Töytäri et al. (2011), other academics have also contributed towards the process perspective. The research regarding value-based selling process models in summarized in **table 5.**, highlighting both activities and capabilities.

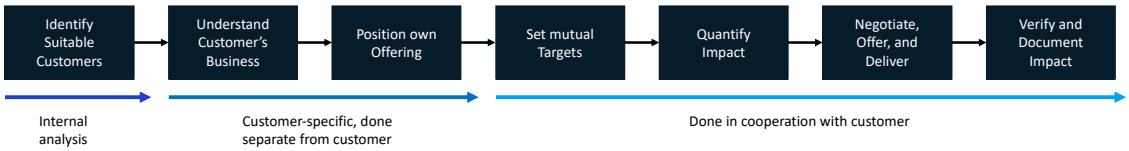

Figure 14. Value-based sales process (Töytäri et al., 2011).

Table 5. Key contributors towards process perspective in value-based selling.

Theoretical focus	Contribution to process perspective	Paper
Capabilities	Three stage model: customer identification and analysis, implementation, verification of value	Raja et al. (2020)
Capabilities	Four stage model including three perspectives (commercialization, industrialization, solution platform): develop solutions, create demand, sell solutions, deliver solution	Storbacka (2011)
Activities	Six steps: Identifying potential customers, understanding customer's business, grafting solutions, quantifying value, communicate value, verify value	Terho et al. (2012)
Activities	Eight elements: Identify customers, understand business, assess value, quantify business impact, tie pricing to realized value, verify, reference, sell with expertise	Töytäri et al. (2011)
Activities	Three stages: customer insight, value proposition, customer engagement	Töytäri (2018)
Capabilities	Three stage model: planning, implementation, leverage	Töytäri and Rajala (2015)

In VBS, it is critical that the customer's buying process and provider's selling process are properly aligned, and this holds especially true in the context of complex and advanced service solutions. From the provider perspective, the alignment and related value selling activities enable a clear understanding of customer needs and critical value drivers

relevant to that specific customer. Furthermore, as the process is emphasized by customer-centricity and collaboration, the provider is able to communicate the value effectively, manage perceived customer value, shape solution vision and impact the decision-making. Similarly, a process where both parties are on the same page, enables adaptation and problem resolution as customers' needs and visions might develop and change over time. It also develops the relationship and creates an effective feedback loop between the two parties, allowing them to improve and create additional value (Terho et al., 2012; Töytäri, 2018; Töytäri et al., 2011).

Existing literature has identified many different challenges related to value-based selling (Liinamaa et al., 2016; Töytäri et al., 2015; Töytäri & Rajala, 2015). As demonstrated in the chapter *2.2.2 capabilities*, value-based selling introduces many new organizational capabilities rarely present in traditional product/service organizations. Furthermore, even though many of the capabilities have been recognized, implementing them is a tall task and often takes a lot of time and effort. Similarly, the mindset of individuals within the organization has to change and value has to be considered from a totally new perspective, highlighting value-in-use, value co-creation, and development of value propositions built upon reliable and corroborated data instead of marketing efforts (Liinamaa et al., 2016; Terho et al., 2012). Additionally, customers might be allergic to value-based selling approaches as the traditional value exchange logic is deeply rooted in the customers' minds, preventing them from value sharing and denying them from seeing it as a legitimate logic of value exchange (Töytäri & Rajala, 2015). From the value-based selling activity perspective, many organizations struggle with the essential task that is reaching the relevant stakeholders and gaining an access to influence where affecting the customers' value perceptions, decision-making process and idea of value sharing becomes possible. Failure in this regard practically mitigates all the benefits associated with value-based selling (Töytäri & Rajala, 2015).

2.3 Synthesis – A framework for studying value-based selling in performance-based lifecycle services

Chapters in the literature review section combine the two academic streams relevant to this thesis. Chapter 2.1 discusses servitization, establishes its communities, sheds light on the integral elements, and lastly points out performance-based services and its connection to lifecycle services, the context of this study. Chapter 2.2 discusses value-based selling by first drawing an understanding regarding customer value, then exploring the different capabilities, and lastly the process perspective where the customer's buying process, provider's selling process and related value-based selling activities are identified.

Based on the literature reviewed, a framework for studying value-based selling in the context of performance-based lifecycle services is established (see **figure 15**). In the framework, the notion of alignment between the buying and selling processes is recognized by presenting the goal-driven customer's buying process and unique provider's sales process that are then divided into collaborative and internal stages as per existing literature (Töytäri, 2018; Töytäri et al., 2011).

Secondly, value-based selling process is introduced according to the three activity groups identified in the literature (Töytäri, 2018). As ambiguity regarding the sales and selling processes exist in the literature (Viio & Grönroos, 2014), this thesis uses the term sales process to describe the strategic organization level perspective i.e., the high level view, whereas selling process is referred to as value-based selling activities.

Lastly, as the different value-based selling activities are conducted during each stage of the sales process, these are then supported and enabled by different value-based selling capabilities. In the framework, identified capabilities (Terho et al., 2012; Töytäri & Rajala, 2015; Raja et al., 2020) are divided into three categories: comprehension, crafting and communication. These categories reflect the purposes of the different capabilities i.e., what they are aiming to achieve.

The illustrated framework enables effective studying of value-based selling in the context of performance-based lifecycle services, allowing knowledge development regarding the impact performance-based lifecycle services have to the value selling process as well as identification of challenges either stemming from value selling or the introduction of advanced service solutions.

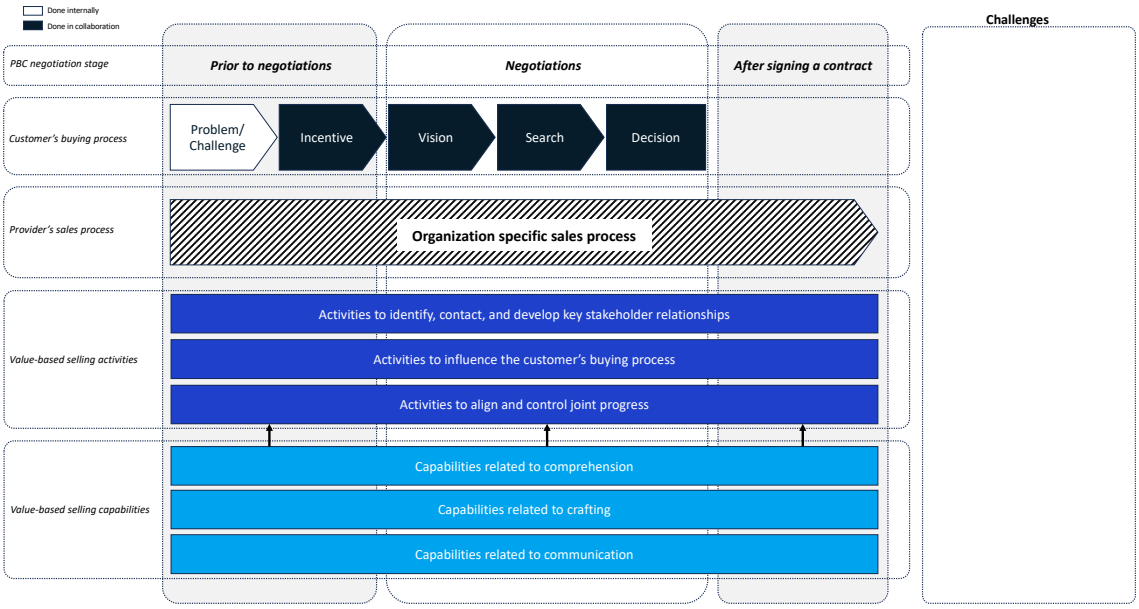

Figure 15. Framework to study value-based selling in performance-based lifecycle services.

3 Methodology

Following the literature review of relevant research streams, the methodology chapter of this thesis introduces the methodological choices and discusses the research philosophy and approach to theory development, research strategy and method. Additionally, the sub-chapter *3.4* discusses the case selection, data collection and data analysis. Finally, sub-chapter *3.5* highlights the validity and reliability of the thesis. The different methodological choices made for this thesis are presented and summarized in **figure 16.** utilizing the research onion introduced by Saunders et al. (2007).

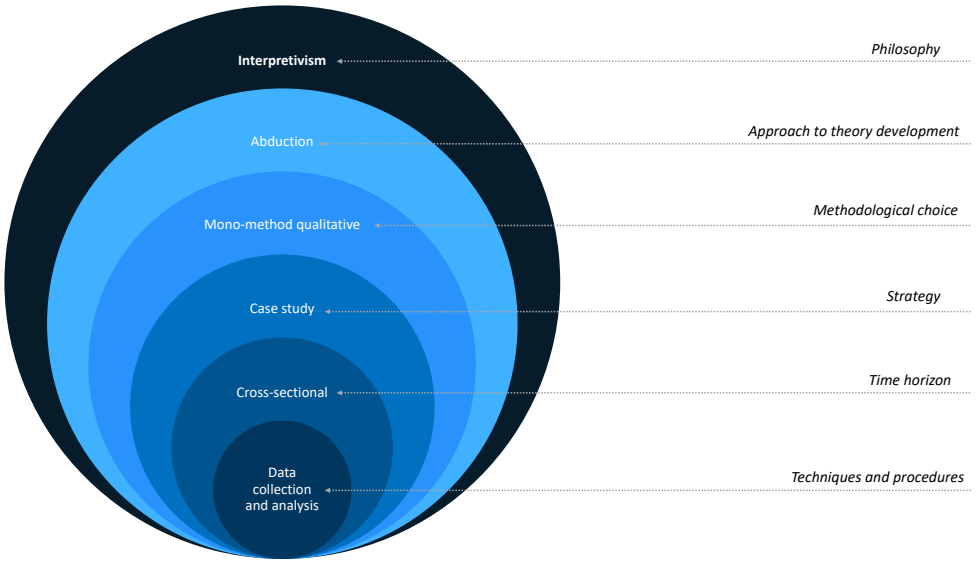

Figure 16. Research onion visualizing the research choices made (Saunders et al., 2007).

3.1 Philosophy & approach to theory development

Starting with the outermost layer of the research onion by Saunders et al. (2007), philosophy of the thesis shall be explored more in-depth. For every researcher, it is critical to understand the philosophical assumptions underlying the research in question i.e., in this case the thesis. From the philosophical perspective, two distinctive key concepts rise to prominence: ontology and epistemology (Eriksson & Kovalainen, 2015; Saunders et al., 2007). The first of the two, ontology, focuses on the nature of existence. Ontology entails examining the assumptions researchers make regarding how the world functions

and the degree of commitment to specific perspectives (Eriksson & Kovalainen, 2015). Additionally, ontology can be divided into two aspects. Objectivism suggests that social entities have an independent existence in a place where social actors are not concerned with them. In contrast, subjectivism indicates that social phenomena are developed and influenced by social actors through their perceptions and consequent actions (Saunders et al., 2007). The latter, epistemology, is concerned with what is acceptable knowledge in the field of the study. The question asked to point to the acceptability of the accumulated knowledge is can the approach of the study in question in the social context be the same as in studies of natural sciences (Saunders et al., 2007).

The philosophical assumptions of this study can be best understood by looking at the four paradigms for the analysis of social theory, presented in **figure 17**. Using the paradigms is particularly helpful as it summarizes and clarifies both the ontological and epistemological perspectives. Saunders et al. (2007) point out that different definitions for paradigm exist, but in this context, it refers to a framework used for studying social phenomena by providing a lens through which specific understandings and explanations of these phenomena can be formulated. As is the case with many other case studies, this thesis adopts a subjectivist side from the ontological perspective. This is due to the fact that as this thesis studies the value-based selling process from activities, capabilities, and challenges perspective in the context of industrial manufacturer's lifecycle services business line, the subjects specific to this study understand the reality based on the individual perceptions and experiences during the process, meaning that those can be different for each individual or share similarities. Furthermore, the researcher is not truly an objective actor as certain values and views impact the research (e.g. formulation of interview questions and data analysis), and thus the thesis. (Eriksson & Kovalainen, 2015; Saunders et al., 2007)

The other element of the quadrant is related to the degree of judgement on how the organizational affairs are conducted and how radical the changes suggested are in relation to the status quo. As this thesis examines how the value-based selling process is

being currently conducted and how things may be adapted within the current environment, the thesis falls into the regulation end of the spectrum due to it taking a more modest approach to judgement. Based on these assumptions, this thesis and its research philosophy belong in the interpretive paradigm, bottom left corner in **figure 17**. In addition to the aforementioned notions, the interpretive selection is supported by the means of understanding findings and gathering of information. The data and knowledge accumulated is based on the interviewees' subjective interpretation of events and reality while the findings present an interpretation of the researcher of the events and reality given by the interviewees. Therefore, interpretivism epistemology and subjectivist ontology are recognized and justified as elements of the philosophy of this thesis (Burrell & Morgan, 1979; Eriksson & Kovalainen, 2015; Saunders et al., 2007)

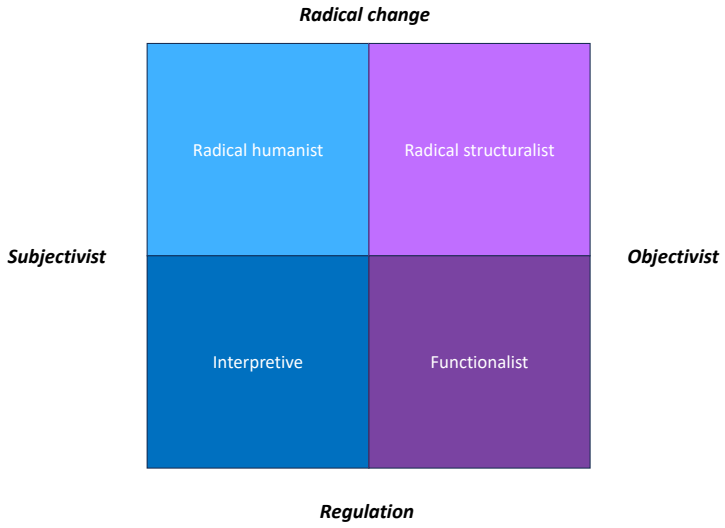

Figure 17. Four paradigms for the analysis of social theory (Burrell and Morgan, 1979; Saunders et al., 2007).

In regard to approaches to theory development, the second layer of the research onion, there are two prominent means that are induction and deduction (Eriksson & Kovalainen, 2015; Saunders et al., 2007). In deductive research, theory and hypothesis are formulated and a strategy designed to test the hypothesis, meaning that in this theory testing approach, the researcher first explains the general theory in a specific context before testing it with the real-world or empirical data (Ketokivi & Choi, 2014; Saunders et al.,

2007). In inductive research on the other hand, the data is gathered, and a theory is formed based on the analysis of the collected data. In this theory generating approach the simple premise is that in case a researcher sets out to study something that does not have existing theory or that the research context is new or unfamiliar where choosing an existing theory may lead to biases and focus on observations that fit the selected theory, the researcher through empirical analysis has the option of generating it himself (Ketokivi & Choi, 2014).

It is not rare, however, that the selected approach to theory development does not fit either of the modes explicitly. In this case a hybrid of sort must be adopted. One of these hybrid options that combines approaches from both inductive and deductive is called abduction (Eriksson & Kovalainen, 2015). Abductive or theory elaboration research shares similarities with both approaches and while the researcher might be able to use a general theory, there still may not be enough detailed information to form testable hypotheses based on that theory. Additionally, if the researcher wants to explore the empirical context more openly, the empirical data is not just used to test the hypothesis but also to question it. In comparison to inductive research where “explanation derives from exploration”, in abductive research the researcher has identified the relevant theory that can be utilized in the empirical context (Ketokivi & Choi, 2014).

Out of the three presented approaches (see **figure 18**), this thesis adopts abduction as its approach to theory development. This is due to the fact that this thesis utilizes existing general theory of value-based selling to develop a framework but expands the current theory by studying the topic in an empirical context less-known that is performance-based lifecycle services of an industrial manufacturer. Therefore, the existing literature is used as a foundation of which the theory is elaborated on in a specific context, justifying abduction as the selected approach to theory development.

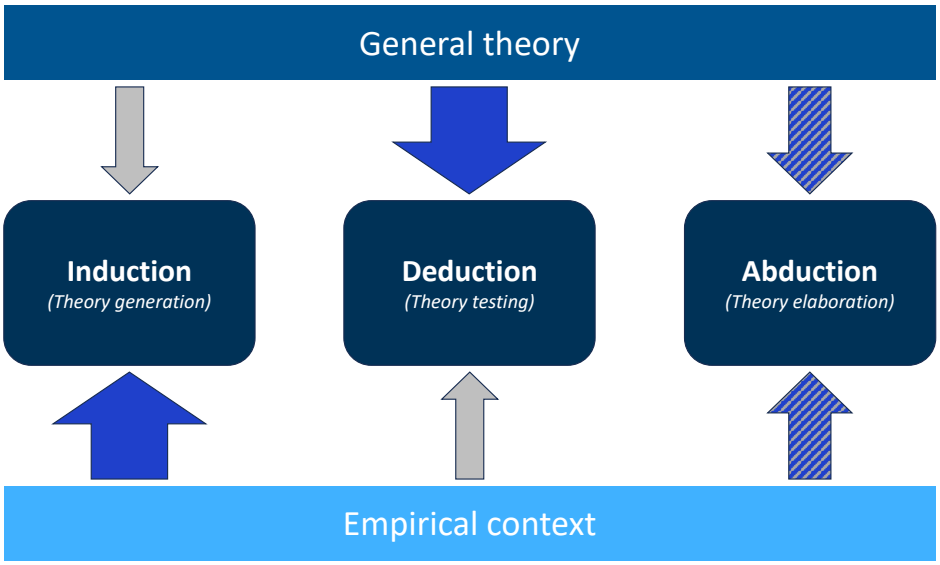

Figure 18. Three modes of conducting case research adapted from Ketokivi and Choi (2014).

3.2 Research method & strategy

Moving on to the third and fourth layer of the research onion, selected research method and strategy are explored by first looking at them separately as individual concepts, followed by a synthesis that justifies the selection. Research methods can be divided into two categories, which are qualitative and quantitative research (Corbetta, 2003; Hammersley & Gomm, 2009; Saunders et al., 2007). According to Saunders et al. (2007), these two terms are commonly used in business and management studies and refer to the different approaches, techniques, and procedures used for data collection and data analysis. They elaborate that a differentiating factor between the two methods is concerned with numeric or non-numeric data. Quantitative refers to data collection and analysis means that as input gather data through for example questionnaires and forms and as output utilizes math and statistics, including tables, graphs, and various statistical tests to generate numerical data (Corbetta, 2003; Saunders et al., 2007). Qualitative data collection and analysis, on the other hand, utilizes for example interviews, observations and video/audio recordings and categorization to generate non-numerical data. Furthermore, in qualitative analysis, researcher does not use statistical or mathematical tools and any use of information technology is mostly limited to the organization of empirical

data. Similarly, the aim of the analysis in quantitative research is to explain the variance between different variables, whereas in qualitative research the aim is to understand the subject, generate insights and identify patterns. (Corbetta, 2003; Edmondson & Mcmanus, 2007).

When selecting a research method, the researcher has to also decide whether they want to use a single method for conducting data collection and analysis or if they want to apply different methods simultaneously. If the researcher decides to implement qualitative research methods, they can either use one qualitative way of collecting and analyzing (mono-method) or adopt different qualitative techniques and procedures (multi-method). The same applies for quantitative methods. In case the researcher combines qualitative and quantitative methods, it is called mixed methods. (Saunders et al., 2007).

A critical decision from the research perspective is the selection of appropriate research strategy. Each strategy, of which there are plenty, can be used for different purposes, and no strategy is inherently better or worse than another. In fact, different strategies can be utilized and mixed in different contexts. For example, a case study may also utilize survey strategy to gather ample information about the studied phenomenon (Saunders et al, 2007). It is important to note from one's research question what type of research they are about to conduct. These types include exploratory, descriptive, and explanatory. Additionally, out of the well-established strategies (experiment, survey, case study, action research, grounded theory, ethnography, and archival research), some are very oriented to a specific approach i.e., inductive, deductive, and abductive (Saunders et al., 2007; Yin, 2003). Therefore, rather than selecting one, the researcher should understand the 'big picture' and select strategy(ies) according to the needs of one's research question and objectives.

Starting with method, this thesis adopts mono-method qualitative approach to data collection and analysis. As this thesis is trying to gather information about the value-based selling activities and capabilities to understand the sales process in the context of

performance-based lifecycle services and related challenges and how value is being sold, qualitative data fits the purpose. Primary data for the thesis was gathered through semi-structured interviews, enabling a flexible yet structured way of gathering information about the different themes related to the research question, supporting questions, and broader objectives of the study. Contrary to structured interviews, semi-structured interviews enabled a more relaxed approach as well as incorporation of additional or reactive questions during the conducted interviews to match the natural flow of the conversations. Secondary data or pre-existing information that is not collected by the researcher, was also utilized (Saunders et al., 2007). Secondary data was mainly retrieved from company intranet such as presentations, brochures, calculators, and customer relationship management system but also from articles available to the public.

In terms of the selected research strategy, this thesis adopts case study as the approach to conducting research. Although historically in the academia, there has been debate over the scientific validity and reliability of case studies, most current academics argue that case studies act as an excellent way of studying contemporary phenomenon in a specific context, combining different sources and means of qualitative research such as interviews and document analysis (Dubois & Gibbert, 2010; Yin, 2003). Saunders et al. (2007) add that case studies are an effective strategy to develop in-depth understanding of the research context and the processes involved. Therefore, as this thesis adopts qualitative methods and focuses on a phenomenon in a context less-known, case study enables effective knowledge development.

As noted, a question to ask is about the type of research one is about to conduct and the research question(s) and supporting questions presented. In this thesis, the research question relates to *how* to sell value in performance-based lifecycle services which is a suitable form of research question for case studies that according to Yin (2003) usually answer to questions starting with either how or why. However, as noted in literature, case study is also capable and adequate strategy to answer question starting with what, even though it is more prominent in survey strategy (Saunders et al., 2007; Eriksson &

Kovalainen, 2015). Furthermore, this thesis shows elements of exploratory research as it explores the value-based selling process in a context less known to academia and explanatory elements as the study is aiming to develop understanding about the cause-and-effect relationships between variables by investigating how to sell value in performance-based lifecycle services, focusing on the activities, capabilities, and challenges, both of which are typical types of case study research (Saunders et al., 2007). Similarly, classic case studies are from the methodological perspective connected to interpretivism which is also recognized in this thesis' philosophical section (David, 2006; Eriksson & Kovalainen, 2015).

Lastly, related to the selected research method and strategy as depicted in the fifth layer of the research onion, this thesis uses cross-sectional time horizon as it studies the phenomenon during a specific time period, instead of applying data collection and analysis practices over a longer period of time. Although, cross-sectional research is particularly common in survey strategy, it is also typical in case studies as they portray data from usually interviews that were conducted during a very short period of time. (Saunders et al., 2007).

3.3 Case selection & data analysis

The section on case selection and data analysis sheds light on how this particular case was selected and what exactly is it. Additionally, the data collection process is explained by describing the process and practices involved. Data collection is followed by data analysis, focusing on the means used to interpret the gathered data.

3.3.1 Case selection process

Starting with the definition of the case in this study's context. A case in this thesis refers to a case company's particular function dedicated to the sale and execution of long-term service agreements, commonly referred to as lifecycle services agreements. The case selection process proceeded together with members of the function. Value-based selling

or value selling is of particular interest to the case company as it has invested and contributes resources into establishing value-based selling competencies across the organization. The context i.e., performance-based lifecycle services, was suggested by the members of the case company as the organization is trying grow its performance-based contract business. Therefore, the two were combined as succeeding in value-based selling contributes towards the success and growth in performance-based services. Conveniently, the study is highly beneficial for the academics as well, since very few of the existing studies have taken place in the advanced services context.

3.3.2 Data collection

As for the data collection, primary data for this thesis was gathered through semi-structured interviews which were divided into two phases. The first phase commenced in the autumn of 2023 where in total seven interviewees were interviewed. The first interview phase consisted of questions related more to the performance-based services and performance-based contracts. The foundation for those interviews was the first part of the semi-structured interview questions presented in **appendix 1**. In addition to those question, interviewees were encouraged to talk about the topic as openly as possible, in order for the researcher to gain a better understanding about the performance-based business.

The second phase followed after initial analysis of the phase 1 data. The process began in December of 2023 and ended in April 2024. In total, twelve individuals were interviewed during the latter phase. Overall, ten interviews were conducted internally in the case company covering a variety of roles from sales and marketing to product management and technical experts. For these interviews, the questions asked are presented in **appendix 1**. Additionally, two customer interviews were conducted. One of them was carried out traditionally and the other via email as language barrier disallowed a regular interview. Customer interview questions are presented in **appendix 2**.

All of the interviews, except for the one customer interview, were conducted utilizing Microsoft Teams, enabling easy recording and transcription. With the one customer interview, questions were sent to a Brazilian member of the case company who translated the questions into Portuguese and sent them to the customer. Customer responded in Portuguese which was then translated into English. Utilizing native resources over translation tools, enabled more accurate presentation of questions and protected the original style of the questions. All of the transcriptions and files were then uploaded to qualitative analysis software tool ATLAS.ti where the analysis work itself was conducted.

During the interviews, the semi-structured questions acted as the backbone for the interview and ensured all the relevant topics were discussed. Reactive questions were also presented by the researcher in case the topic discussed was deemed interesting in relation to the research purpose. On average, the interviews lasted for 66 minutes with the longest being 92 minutes and shortest 49 minutes. Ten out of the eighteen Teams interviews were conducted in English and eight in Finnish. For the findings section, those quotes that very originally in Finnish where translated into English by the researcher. Secondary data was mainly acquired for case company's internal resources which includes presentations, process descriptions and conference calls. The summary of the interviews can be found in **table 6.**

Table 6. Summary of the interviews.

Interview	Interviewee	Role	Length of the Interview	Date
1	A	Senior Manager, Sales MA	63 min	11.10.2023
2	B	Head of Service Operations MA	62 min	12.10.2023
3	C	Manager, Sales Global	72 min	31.10.2023
4	D	Director, Key Accounts	49 min	23.11.2023
5	E	Manager, Sales Global	60 min	23.11.2023
6	F	Key Account Manager	64 min	27.11.2023
7	G	Director, Key Accounts	55 min	1.12.2023
8	H	Vice President, Marketing	58 min	19.12.2023
9	C	Manager, Sales Global	83 min	27.2.2024
10	A	Senior Manager, Sales MA	71 min	29.2.2024
11	I	Manager, Sales Global	56 min	1.3.2024
12	J	Product Manager	92 min	1.3.2024
13	K	Director, Sales Business Line	80 min	8.3.2024
14	L*	Contract Manager	53 min	13.3.2024
15	M*	Site Manager	53 min	13.3.2024
16	N	Manager, Sales Global	67 min	15.3.2024
17	O**	Head of Procurement	60 min	21.3.2024
18	P	Director, Sales Business Line	90 min	21.3.2024
19	Q**	Head Engineer, Service Contracts	*Email*	1.4.2024
	*	***Interviewed together***		
	**	***Customer interviews***		

3.3.3 Data analysis

Similar to the data collection, data analysis was conducted also in two phases. After the first round of interviews, initial analysis of the data was conducted in ATLAS.ti by reading through all of the transcriptions. During the second round of interviews, rest of the data

was analyzed in a similar fashion. After the read-through of all documents, the method of Gioia et al. (2013) was adopted in order to help the analysis process.

The first step in the process was data coding to categorize similar phenomena under manageable codes to depict similar themes rising from the interviews. The coding was conducted utilizing the coding tool within ATLAS.ti. The coding process acted as the 1st order analysis designed to infuse clarity and reduce feelings of overwhelm in the research process (Gioia et al., 2013). The 1st order analysis process was critical as it separated irrelevant material from beneficial material. At this stage, the 2nd order analysis process commenced which was guided by the established theoretical framework and the research question. 1st order concepts where then compressed according to the method of Gioia et al. (2013) into comprehensible themes in which the question *where does this relate to* was utilized. Similarly, as the selected research mode was theory elaboration or abduction, existing theoretical terms were utilized when designing the 2nd order themes. Lastly, these 2nd order themes were then combined into three aggregate dimensions representing the three supporting questions for the research question. Based on this a data structure is established visualized in **figure 19.**

Lastly, the analysis process concludes in the development of the findings section in which the identified themes and concepts are presented and demonstrated by the usage of direct quotes from the interviewees. In order to be certain about the correctness of the quotes, those selected were verified by playing back the interview recordings. Required corrections were then made to the transcriptions in ATLAS.ti. The quotes are presented accordingly in the findings section.

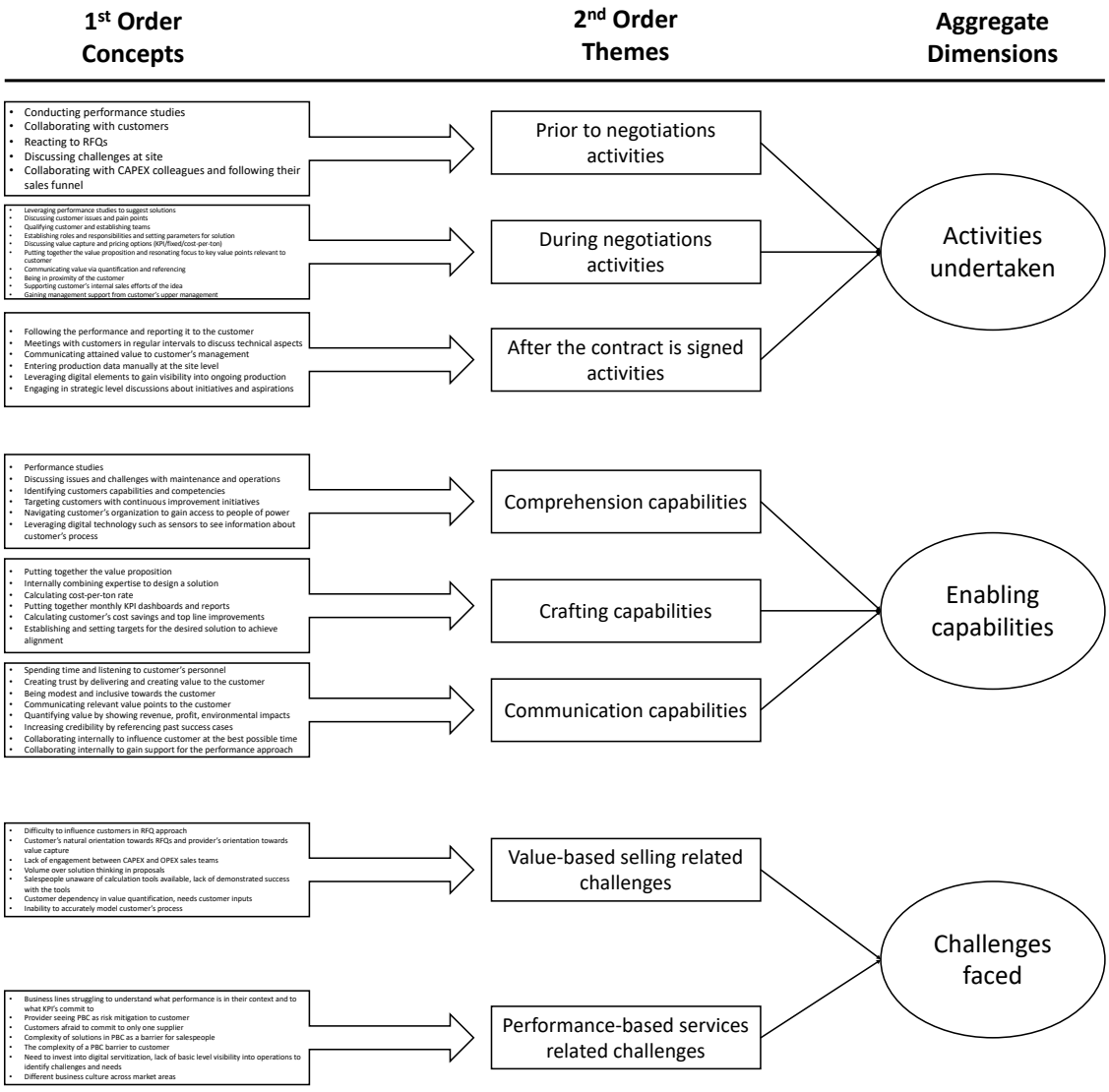

Figure 19. Data structure based on Gioia et al. (2013).

3.4 Validity and reliability

When conducting any type of research, the study's validity and reliability related aspects should be taken into consideration due to their impact on the trustworthiness and integrity of the findings . According to Saunders et al. (2007), validity of the study refers to the accuracy or correctness of the findings, whereas reliability is concerned with the finding's consistency and repeatability. Validity assesses whether the study measures what it is intending to measure and ensures that findings are accurate and for example free of any biases. Reliability on the other hand proposes that in case an alternative

researcher conduct similar study and analyzes same information, they will reach similar conclusions (Saunders et al., 2007). **Table 7.** demonstrates how these two aspects were taken into consideration during the research and what efforts were made to improve them.

Table 7. Efforts made to improve validity and reliability.

Validity	Validity was taken into consideration in the design of the whole research. First of all, it was ensured that number of people interviewed was adequate in order to interpret the data correctly. Secondly, data was collected from people in different positions and different countries. Interviewing people across five continents gave the study a credible global foothold. Validity was also taken into account, so that data was being collected holistically from both the case company and customer side in order to establish views from both sides of the process
Reliability	As the study was conducted utilizing semi-structured interviews and reactive questions, some of the study's findings could be classified as unique or hard to imitate. However, to improve reliability, the data collection and analysis processes were carefully depicted. Additionally, during the collection phase, interviews were conducted with recording and transcription on. This meant that during analysis stage A) there is already existing transcripts available about the interviews and the researcher does not have to transcribe them, mitigating biases. B) Upon closer inspection quotes were verified by playing back the recordings and making necessary corrections. Furthermore, the one interview conducted in a language unfamiliar to the researcher was translated by native speaker, securing the right formality of the questions and answers. Similarly, the quantity of interviews conducted in the context was adequate to get a fair view of the topic rather than being based on the words of few individuals.

4 Findings

4.1 Introduction to the case company

The case company in question is a global leader in providing customers with sustainable technologies, comprehensive solutions, and expert services tailored to the aggregates and minerals processing industries. The global footprint of the case company is visible in its division of market areas. Consisting of eight market areas, the case company operates in North and Central America, South America, Europe, Africa, Central Asia, Middle East and India, Greater China, and Asia Pacific. This is further emphasized by the sheer number of different countries, totaling to nearly 50 countries with presence. In terms of employees, the case company is not small either with over 17 000 employees with over 100 nationalities representing professionals in operational, specialist, and management roles. Globally, the employees are spread across quite evenly with Europe and South America being the two largest ones.

Financially, the company generates approximately 5,5 billion euros in revenue with increasing emphasis on sustainable, eco-friendly sales. The split between revenue generated from CAPEX (customers' investments into new machinery, equipment, facilities, and production) and OPEX (customer's operational expenses) sales stands at approximately 54 % in favor of OPEX. Geographically, the risk is also spread quite evenly as all of the market areas generate revenue relatively evenly with North and Central America being the most significant contributor at 23 %. Looking into the different segments, Minerals processing customers generate 75 % of the revenue, whereas aggregates customers represent 25 %. The difference between the segments is not really driven by volume, but rather by price, since solutions tailored for the minerals processing industry tend to be generally a lot more expensive.

Lifecycle services (LCS), the context in which this case study takes place, is a service concept designed to incorporate the entire aftermarket offering portfolio by bundling them into customizable, easy manageable packages tailored to the specific needs of the

customer. These needs can range from the case company acting as a supplementary support to the customer's team to assuming full responsibility of maintenance and operations. Over the 15 years of experience in providing valuable and innovative lifecycle services solutions, the case company has developed different customizable bundles starting at basic provision of spare and wear parts and maintenance activities all the way to guaranteeing performance outcomes such as equipment availability and throughput of concentrate. Needless to say, as the company serves customers in the aggregates and minerals processing industries, the specific performance outcomes vary according to process stage and equipment in question. Furthermore, different customer segments have slight variations in the quantity and content of the bundles.

With the very basic level lifecycle services bundles, the business models can be traditional and transactional where for example pricing is completely fixed and conducted monthly, but with the more advanced bundles, the business model starts to incorporate new elements characterized by increasing provider responsibility i.e., changes in the value creation processes and changes in the value capture practices. With the more advanced lifecycle services solutions, the case company offers different payment solutions such as performance-based pricing and cost-per-ton. Performance-based pricing, for example, in the context of mill lining solutions refers to a situation where the case company can receive bonuses for exceeding the estimated wear life of a liner, and on the other hand, give credit to the customer for the purchase of next set in case the wear is more than was estimated. In the cost-per-ton logic, pricing is a mix of achieved performance and fixed with the pre-defined cost-per-ton rate being multiplied the actual monthly production tonnage.

4.2 Sales process

As expressed in the literature section regarding companies' sales processes, most companies have defined a formal, high-level process description of their strategic objectives, roles, and responsibilities during their sales efforts. Reasons for doing so are plentiful and for example in large and complex organizations such as the case company, the

formalized process description enables aligned and harmonized way of working as many members of the organization are required to either develop, communicate, or approve certain elements in the process.

The case company has gone even further and defined different sales processes for each business area and in some cases for different business types such as transactional business where a customer might approach the case company for a specific part but is not interested in further collaboration. On the other side of the spectrum are lifecycle services customers who require much more complex and intimate type of an approach. In the case of lifecycle services customers, usually, the final solution entails offerings from multiple different business lines, requiring not only close collaboration between the salespeople and the customer's representatives but also internal collaboration between the salespeople, business line representatives and support function representatives such as legal and finance. Therefore, as expressed in the beginning, it is necessary for successful execution to have well defined roles, processes, and practices in place.

For the context of this thesis, the relevant sales process is the one regarding lifecycle services. In their sales process model, the case company has opted for a stage-based approach consisting of five stages related to sales and eleven that are related to execution of the contract of which one is quintessential to sales. Upon a closer analysis of the stage descriptions available in the company intranet, it can be concluded that these six stages can be further divided according to the degree of collaboration with the customer as presented in **figure 20**.

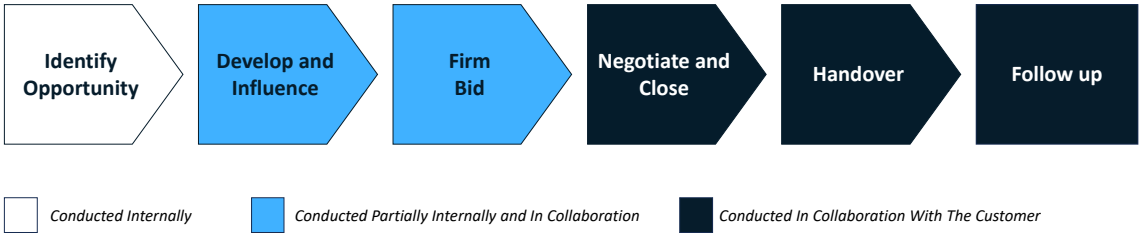

Figure 20. Sales process model.

Identify Opportunity

During this first stage, the objectives are to identify the lifecycle services sales opportunity, ensure that the potential customer has the ability to pay and not default on payments as well as assure that they are trade compliant. At this stage, a designated sales team is also assigned and the analysis work on potential commercial and technical solutions commences. Actions are also taken to document the process to customer relationship management (CRM) system. This stage is done completely separate from the customer – internally.

Develop and Influence

During the develop and influence stage, the case company engages with the customer to develop the solution based on their analysis and customer feedback, often in iterative fashion. This part of the process is very much conducted in collaboration with the customer. However, the stage also includes steps that are done away from the customer. These include internal risk assessment and development of budgetary proposal if required by the customer. CRM system is also kept up to date with the process.

Firm Bid

Firm bid stage is reach either via customer accepting the budgetary proposal or directly from developing the solution. This stage can be characterized by clarifying and approving of things. The stage is mainly driven my internal collaboration between the relevant stakeholders but can include requests for clarification from the customer side as well. Here, the division of roles is critical and for example the point of contact to the customer is well defined. Internally, decision makers have to commit or approve the making of the firm bid. A timeline for executing the solution is also drafted.

Negotiate and Close

At the negotiate and close stage, the case company first engages in commercial negotiations with the customer after which updated and finalized proposal together with contract template are submitted to the customer. This is then followed by contract negotiations which can result in altercations requiring re-approval from different stakeholders. Process is also updated in CRM and necessary approvals are documented there. Finally, contract signing is organized.

Handover

At the handover stage, first relevant internal stakeholders are brought up to date in a formal handover meeting where the lead person expresses the sales case, customer expectations, and overall contents of the contract. This is the followed up by a kickoff meeting together with the customer where relevant topics are discussed such as who is the contract manager, who are contact persons and how the solution is going to be implemented and its timeline. In the handover proceedings the usage of CRM is emphasized as relevant documents are stored in the system and process stage is changed to indicate active contract.

Follow Up

The last stage mentioned here is more related to the contract execution consisting of operational activities. However, from sales perspective as highlighted by the academics, a relevant step in the sales process is the verification of the solution's impact. At the case company, this is designed to be a monthly exercise of updating and maintaining KPIs and dashboards which are then achieved and presented to the customer in a monthly meeting.

4.3 Pre-negotiations

The first phase in the process of selling performance-based lifecycle solutions, consists mainly of activities that can be considered to happen away from the customer, prior to

the actual negotiations themselves. The word *mainly* is accurate as from the sales perspective, there is no sales centered or specific interaction with the customer, however, in order to initiate the actual negotiations either the provider or customer usually has to engage with the other side. This sub-chapter of the findings section highlights the pre-negotiation specific activities and the underlying capabilities that enable said activities.

4.3.1 Identifying potential customers

Starting off with the identification of potential customers, overwhelming majority of the interviewees highlighted the role of existing customer relationship as a prerequisite for the potential sale of the performance-based solution. Many of the interviewees mentioned credentials as the reason for that, stating that proven performance and sustained successful delivery of different offerings enabled the customer to commit to a long-term contract usually covering the next 3 to 5 years as delivering the performance guarantees outlined in the agreement would take at least that amount of time. Additionally, the element of trust related to the nature or design of performance-based contracts, where the customer relies on its partners to deliver, was being noted.

> *“Normally, if you want to enter a performance based you need a customer that you already did business with them for quite some time, so that they know you and you know them. It is very hard to do it on a customer that you have never worked with.” (Interviewee A)*

> *"And indeed, now again with those old customers, for example in mill linings-, so when we've succeeded, it's always easier* [to do further business]. *And then again. On the other hand, it's also that if we've failed, we must be able to admit that hey, it didn't go quite as planned." (Interviewee C)*

> *“When the customer hands over a performance based contract to us, they are entrusting us with their operations. That's really what they're doing and so, uh, it comes down to whether they trust our ability, our structure, umm, to maintain the performance objectives that are outlined. (Interviewee F)*

While the existing customer relationship was emphasized as one of the key points for considering offering performance-based solutions, it is not the only contributing factor.

In fact, access to information and data such as process and production data was pointed out as a significant factor when considering potential customers. This, however, does not indicate that the case company would require straight and live access to the data, but rather that both parties that is the provider and customer to have an understanding about the production, its targets, and baselines, meaning that there should be some type of existing information that could be then evaluated and servitized into an offering. This very notion of information and understanding makes brownfield projects – projects that refer to for example development, expansion, or reuse of existing sites – more attractive and attainable over greenfield projects i.e., projects related to opening of operations at a completely new site.

> *"This could perhaps describe quite well the situation where a customer starts operating a completely new facility, so it could be quite similar in terms of challenge because initially it might be difficult to sell such a performance-based contract as neither party has precise knowledge of the process necessarily. …But then* [an example customer case]*, after about 3 years, they operated with their financiers, and then when the company or the mine began to generate good profits, they started considering the improvement of their internal processes. That's when we were immediately involved with them in terms of opportunities related to their mill lining contracts, and they remembered it and were interested in the idea of giving us more responsibility and sort of doing what they are good at, which is running the process as efficiently as possible. (Interviewee C)*

When considering the ideal and most common customer for performance-based lifecycle services, it became apparent that those customers who have expressed continuous improvement as a high level objective of theirs, are the most prominent candidates from an opportunity perspective.

> *"And it probably also comes from the fact that they* [the customer] *have those targets. …Their internal targets are quite clear, and they have that continuous improvement there as well in their process as a priority." (Interviewee C)*

The notion of continuous improvement was especially mentioned by the interviewees when discussing the case company's larger and more significant customers such as key accounts. It was explained by the interviewees that the larger global players in the

mining industry especially have many initiatives always ongoing related to improving their internal processes, sustainability and performance and this is also sometimes reflected in how they utilize and select key suppliers in order to achieve them.

> *"There's a massive driver in in recent times to partner with, I suppose key vendors across both mobile and plant space. …They* [customer] *are partnership driven from very high level, so from basically their group procurement officer who reports up to their CEO has openly driven I suppose that the partnership between not between all vendors but between key vendors, that they* [customer] *I suppose have their operations and initiatives reliant on their machinery, so the likes of* [list of major companies operating in the space as well as the case company]*." (Interviewee D)*

Similarly, loss of skilled labor within the mining industry has emerged as a pressing challenge for the major companies, forcing them to reassess their operational strategies. As their pool of workforce is diminishing of experienced workers mainly due to reasons such as retirement and changing workforce demographics, the major mining companies have increasingly felt the need to turn to their suppliers for their assistance in assuring the successful running of the production process. Recognizing the need for specialized expertise and technical know-how, the utilization of key suppliers such as the case company in bridging the emerging knowledge gap seems like a strategic response to the evolving market conditions characterized by shorter employee turnover cycles, narrower pool of qualified candidates, lack of interest towards the industry, and therefore increasing reliance of key suppliers.

> *"Obviously it's a very, very large business and a lot of the time they think they know better and that has historically been a massive issue with a lot of the sites. So like I said, you know now* [Time how long customer's employees have been working] *it's about six months, but if you go back five or six years, the average duration of employment at* [the customer] *would have been 10 or 15 years, so they did have a large I suppose knowledge base and they didn't really need to rely heavily on the OEM, so I think probably a combination of the turnover in the business and the loss of knowledge over the years has really lent itself to looking at these sorts of contracts now." (Interviewee D)*

The notion of diminishing internal competencies can also be reflected to the differences between more and less mature market areas. In market areas such as South America, there still tends to be more availability when it comes to workforce, but in market areas such as North America or Europe, shortage of available workers is a real pressing and topical issue on which customers are desperately seeking solutions for.

> *"I would say that the US because of the aging population of their, of their technicians and their supporting engineers, I think the US is a little more open to going to a performance based agreement with us." (Interviewee F)*

> *"Yeah, like for instance, in the US they have, uh, uh, they have a higher turnover of personnel and they also have a higher aging personnel compared to some other countries." (Interviewee F)*

> *"Exactly, this* [Performance-based contract] *helps us because we have difficulties in getting employees here* [site in Europe]*. … and we have relatively high [employee] turnover." (Interviewee O)*

However, it is not just the market areas, but also the geographical location within that specific region. In the interviews it was raised that some of the customer sites might be located in places where it is very difficult to attract qualified people who possess those competencies required to run the process successfully. Therefore, it might be an attractive option for the customer to outsource those competencies from a supplier such as the case company.

> *"It at this point it appears to be varying depending on where the customer is located and whether the customer has and how the customer views his own competencies. So a customer who has difficulty in getting good technical competence at his operations level, they will be more receptive to performance based contracts uh, by virtue of, you know, in trusting us to get the right competencies to support their operation." (Interviewee F)*

> *"And hiring skilled professionals is, of course, challenging when many don't want to come from the south or can't, and if they do come, they leave quickly. So, in that sense, this problem is removed from us* [customer] *and transferred, in a way, to the responsibility of the contractor or supplier." (Interviewee O)*

As mentioned earlier, continuous improvement rises as one of the most prominent indicators when it comes to identifying suitable customers for performance-based contracts and even though this theme was particularly present in major customers with larger operations, there was some ambiguity among the interviewees about how the size of different customers' operations impacts their potential to be a viable performance-based customer. Some felt that smaller customers do not have the necessary capabilities to deal with such complex contracts, which is highly possible as rarely do those customers for example have internal legal departments, forcing them to sign external legal consultants who are more difficult to negotiate with from the value selling perspective.

> *"…Just a small one site, they [customer] don't have a cost per ton agreement. They have a fixed monthly fee but it's because it's less complex, less complexity in such an agreement and we know quite well how they run their [process] because there won't be like too much surprises and it's not huge sums we're talking about here. So, that's why like a fixed monthly fee was better for them and it's easier for us when signing the agreement. Cost per ton agreement is much more complexly built and also the way you write the contract with like the legal paragraphs and you know what happens if we do it with a smaller customer so that's better maybe for the operations that have a little bit more like larger mills, more throughput and have maybe push their production targets a little bit harder." (Interviewee M)*

Similarly, some interviewees expressed that in the case of smaller customers, offering performance-based contracts and assuming greater responsibility in the customer's operations can be a tricky exercise especially if they are lacking people in their own organization in that specific area, making the implementation of additional value activities (i.e. expertise and know-how) more difficult. However, it was also recognized that in larger operations with those customers that have their own organization in place, the signing of a performance-based contract can be seen as a job-cutting exercise, belittling the input and contribution efforts of internal workers.

> *"…it's for the customers that have a little bit larger operations like not the smallest customers and that they have their own organization also for like handling the mills*

and we can step in and bring additional value and can like liberate resources from them which is all… not always seen as a good thing in customer's mindset as you go in and you take basically jobs so." (Interviewee L)

On the other hand, other interviewees expressed that smaller customers cannot be crossed off the board completely and that every customer is a potential customer from a size perspective. In regard to smaller customers, it was explained that these types of customers might be very potential as they do not possess all of those necessary and required capabilities and competencies, creating a situation where they might benefit significantly from the services and support of suppliers in their day-to-day operations.

"[Talking about size factor] *to me, at first sight, all customers are potential customers for performance-based services." (Interviewee N)*

"Then there are also these smaller and medium-sized customers, who perhaps don't have their own organization for continuous improvement, so they largely live their lives in such a way… and of course they have targets, certainly in terms of production, but then they don't have as much capacity for continuous improvement, nor necessarily for negotiating contracts and other things, so it can be a big deal for them. Also, they might not have the organization to think so precisely, about for example the logistics chain, like when to order what and when everything needs to be in place, and how to ensure that they arrive on time and how to plan for efficient shutdowns and other things, so in these cases, they probably, or these customers probably see the benefit in sharing that daily workload with us." (Interviewee C)

4.3.2 Recognizing opportunities

When it comes to recognizing opportunities, there are two different approaches. First of all, the more traditional approach that is reactive by nature. This approach can be characterized by an individual customer making the initial approach to the case company and expressing their issues or pain points in reaching for example specific production targets or any other element that is hindering their targeted performance. Customers always track their performance with KPIs and therefore it can be determined that it is quite easy for them to identify issues happening in their production process. Now, granted not

always do the identified issues lead to contacting the supplier or suppliers, but in the mining industry context, losses in lost production from even a short time are measured in hundreds of thousands or millions. Therefore, the bar to raise questions or incentive to act, is low in the first and high in the latter.

> *"Well, perhaps it starts with discussing brownfield projects first, meaning existing ones, where the customer has these symptoms, indicating they have problems and their key performance indicators are quite low, and there are many issues. That's where it starts. Then there are some customers who actually seek help because they can't maintain the performance of their equipment at a certain level, and from there, it starts. When we talk about it on a device-specific level, I think you can quickly notice those symptoms, but then how to translate that into performance-based, well, that's a different matter." (Interviewee, E)*

As mentioned, not always does the customer actually reach out to their suppliers, but rather try and solve the issues themselves. Customer might conduct for example internal investigations and analyses to identify the potential bottleneck items in the process and conceptualize a solution, which they then push to the market in a form of an RFQ (Request for Quotation). This is not ideal for the supplier as the window of opportunity to influence the solution design has closed. The customer has already decided on specific components and elements on which they are purely looking for prices. For high value offerings this is almost an impossible approach as they are rarely the cheapest option and rely heavily on the salesforce's ability to quantify and communicate the value.

> *"If we get an RFQ right, the request for quotation. Umm, it's very tricky for us to win this one in my opinion because the customer has already made-up his mind in terms of what they're going to hire, how they're going to hire, right. And once they put the RFQ into the market, they are in a hurry. They want to hire it very fast. That's normally how it is. So, for us to change that, it's quite difficult. It's not impossible, but it's quite difficult. So, then the ideal world is that we put together the RFQ together with the customer or as in some cases here in Brazil, we've done that there isn't even an RFQ, it's a direct hiring from us, because we just we found out their issue, we put the solution together with them and they just hire it* [our solution] *because they think it makes sense." (Interviewee N)*

The second approach to recognize opportunities is to be proactive. Being proactive indicates actively putting effort in reaching out to the customers, spending time and listening to them, and ensuring that in case something emerges, the case company is in the best possible position to seize the opportunity. In the discussions regarding the activities undertaken by the case company to recognize opportunities, reliability studies and/or performance assessments were mentioned. These assessments, however, were not limited to cases where the supplier makes the initial move, they were also present in cases where the customer initiates the process. This suggests that these studies are used more as a method for the case company to gain a better and more profound understanding about the customer's process, while also acting as an enabler to come up with improvement initiatives.

> *"Usually, what we do, and what we offer as well, is a performance assessment with filters, for example. So, we conduct this kind of performance assessment. We go through the entire operation from various perspectives. From the operational standpoint, maintenance planning and reliability, spare parts aspect, and then we also compare them to their goals, so you get a good foundation for what you then propose. And that's actually quite right, because you've matched them to the customer's goals. But then, of course, our idea is to then obtain a performance contract from there..." (Interviewee E)*

> *"So, if you look for example at a maybe filtration contract that could have and a performance space or if you look at any circuit in the customer plant, if* [case company] *can actually go and do a reliability study out of that, they come with certain recommendation and* [case company] *then can say if we implement those then we can guarantee an extra percentage of improvement." (Interviewee A)*

Indeed, there is a clear distinction in whether the case company reacts to a salient pain point expressed by the customer or being proactive and suggesting improvements or development plans related to possible pain points previously unknown to the customer. In the latter case, it could be that the customer decides to proceed with the case company rather than issue a market wide request for quotation for all providers to submit their solution. Although, the previously described method is not really the standard practice, it has been perceived as the most effective approach.

> *"We have to really be close to them* [customer] *because then we will be able to together with them or even allow ourselves to identify possible improvements. So, if we identify those, this is the best way, because we can then… we are really in the driver's seat. Sometimes we can see improvements that customer doesn't even know if they could exist. They think everything is OK, but it can be even better, right. So, we have seen in the past that…and this is the best way to go, but of course this is not the culture that the customer nor us have unfortunately, right. Normally, customer says I'm not reaching my throughput, OK, what do I need? I need an extra crusher for example and then they go to the market looking for an extra crusher. And the problem might be in their blasting process for example, or it might be on their chamber configuration for example. But once they go to the market already with the solution, they believe is the best solution, we don't really have the chance to assess everything and maybe change the solution. So, if the customer went to then market looking for capacity improvement there is difference. Normally, that's not the way it goes. They go out looking for product, not solution." (Interviewee N)*

When it comes to recognizing and seizing opportunities for that matter, the interviewees were all unanimous that relationships between the customers' representatives and members of the case company play a crucial role in enabling the business to happen. Whether the recognized opportunity is from a non-customer or existing customer, ability to form a relationship at the people level was highlighted. Additionally, as mentioned, ideally the potential performance-based customer is someone, who the case company has a long history of working with, placing more emphasis on the importance of listening to and communicating with people at the maintenance and production level both internally with case company's employees and externally with members of customer's organization.

> *"This is the most important thing and building strong relationship with the maintenance organization and site, their maintenance because that's where you like build trust, confidence and you also like get the momentum to push business through, we see opportunities or we see things that we should include in an agreement and so on. You won't go anywhere without maintenance planners and the maintenance personnel with you. So, that's the key." (Interviewee M)*

> *"Extremely important, I say." (Interviewee L)*

However, the relationship with the customer's organization and their employees is not the only meaningful relationship that needs nurturing. In fact, when it comes to

proactive selling and recognizing opportunities, internal relationship with CAPEX sales colleagues was highlighted as an impactful one. Firstly, collaborating with them enables knowledge accumulation regarding their cases and aftermarket potential which can also be assessed through the CRM system in which the sales pipelines are visible. Secondly, building relationships with them has made it possible for lifecycle services salespeople to participate in the CAPEX sales process, gaining valuable information about their production and OPEX needs which can be then used to develop the aftermarket solution.

> *"If we take CAPEX sales, for example, what we're really trying to do here is to push and follow the CAPEX sales pipeline, list the cases that are likely sales for them, and try to identify and pick out cases that could be potential for us or where we could create a lot of additional value right from the start. The same applies to sold CAPEX equipment or plants that are in the delivery project phase, meaning they haven't been started yet. It's perhaps even more critical in the sense that if a customer is building a new plant, from the investment decision to start-up, the customer aims to minimize the time to generate cash flow and to quickly repay the investment... They will be recruiting people, looking for operations personnel, looking for maintenance personnel, and building maintenance plans, and we need to be ready on that timeline to identify those decision-makers and influence them, telling them they don't have to figure everything out themselves because we have ready-made packages for them. And when the equipment starts up, it will start using spare parts. It will start needing maintenance services, so we want to make the customer's life as easy as possible at that point, with maintenance contract packages based on performance already available." (Interviewee J)*

> *"I think one strong area. And at least myself, I've been doing this quite a lot. Is, uh being involved early on with the new build colleagues, so we call them minerals or CAPEX colleagues. So, learning already what they went through or what they are going through in the process of making their transaction viable or feasible. It's actually a good pointer for us. And also knowing when to come into the picture is a big game changer. And also, I would even say that we need to be a little bit more bold in this relationship with minerals, internal relationship so that we are seen as their partners internally. There's so much knowledge that we're going to gain if we are involved early on and those all those bits and pieces of information that we're going to collect along the way will be crucial for the LCS phase." (Interviewee P)*

In the interviews, it was also discussed how the provider must understand value creation in different parts of the customers' broader production processes and have the required capability to see it in a performance-based context. This philosophy was particularly

present when discussing the differences between early and late stage production activities. In early stages also known as upstream which in the mining space includes activities mainly devoted to breaking down the material into finer pieces and transporting it further down in the process such as blasting, loading and hauling and liberating the minerals through comminution such as crushing and grinding, availability of the equipment was highlighted as a key KPI. This is according to the interviewees because availability simply means that the equipment remains at operating condition longer, enabling it to move more material forward in the process thus enabling more production and more revenue and essentially more profits as less is spent for example on unexpected maintenance breaks.

> *"It's important in… when we talk performance, it's important to identify what we're after here because it changes quite a lot. So, if a customer normally is talking about, you know the early stage of the process where they are crushing the ore, then your performance or their performance indicator will be usually around the availability of the equipment because it's mechanical equipment, the more available they are simply it means they're going to crush more ore or they're going to move more ore forward, right." (Interviewee A)*

Moving to downstream, the value creation activities are not centered around moving as much material or concentrate on in the process but rather about the quality and recovery rate which refers to the percentage of valuable minerals that are successfully extracted from the raw ore during the different production/processing stages, essentially measuring the effectivity of the overall process. This holds true as the customer will not benefit from waste material or in other words if the material produced increases but the rate of recovery is poor, it will not have a positive impact on customer's top or bottom line.

> *"If you come later and to probably automation or flotation and filtration then it's not about how much ore or how much concentrate you're passing through but it's really the recovery out of this process, because if you're actually claiming that you're moving more ore out or concentrated but the recovery is dropped, you're going to be, you know, at no advantage. So, then the discussion becomes – it goes from availability of equipment into recovery percentage on that side." (Interviewee A)*

4.4 During negotiations

Following the pre-negotiation stage of the sales process, actual negotiations will begin. This stage is characterized by activities that are conducted in strong collaboration with the customer while some aspects of the activities are being conducted internally. The following sub-chapters will introduce these identified activities and the underlining capabilities and elaborate on them.

4.4.1 Starting to develop the solution and establishing offering scope

Starting to discuss and develop the solution relies and depends heavily on the provider's ability to understand the customers' needs and pain points. As mentioned in the previous chapter, existing customer relationship plays a significant role and practically acts as a prerequisite when it comes to selling and succeeding in performance-based lifecycle services. When there is a healthy existing relationship with the customer, it opens up different avenues to the customer that can be then utilized. Simultaneously, barriers for the customer to engage openly with the provider and share data and information are lowered as there is already an element of trust established between the parties.

> *"We need to be really close to the customer to understand their pain points." (Interviewee M)*

> *"It's easier. We know them maybe we have equipment there, so they are open to us." (Interviewee N)*

When developing the solution, it was highlighted by the interviewees that trust is an integral factor in the selling process which can be difficult to cultivate when the process is already ongoing. Customers might for example hesitate sharing information about their production and targets, making it essentially impossible to offer performance improvements. Similarly, it was expressed by the interviewees that the standard operating practice in the industry seems to be that customers internally develop solutions to their

problems and as mentioned before, come to the market only to fulfill those specific needs at the best price. Often, this very product centric and transactional approach leads to discussions about specific equipment, which are usually not the ideal solutions to the customer's challenges. In those situations where the provider has an established relationship and knowledge of the customer, the provider can come in and ask detailed questions about the issues and actually challenge the suitability of the covered solution and explain that what the customer really needs is something else, taking the focus away from products and related attributes to attainable outcomes. Although this is already difficult even in established relationships, the magnitude of the challenge is multiplied in customers unfamiliar to the provider.

> *"And then they called us to discuss the solution they believed was the right solution, which was changing the chutes because the chutes are where the materials are getting stuck and they're cutting our belt and we got invited for the problem. They had a solution in their mind, but they didn't go to the market asking for the solution. They asked us to discuss the problem with them. So, this is the difference here. And when we got there, we said look this is not the way to go. The best way to go for you is to close your jaw crusher setting, but this of course will make your primary crushing a bottleneck. So, what we can do is that we will install for you another primary crusher on our expense and we will charge you by the produced tons, OK. So that's what we did. And we didn't even get an RFQ. We put the solution together with them and we were hired without a bidding process. Customer was open enough and close enough to us to call us and discuss the solution they thought it was the best one." (Interviewee N)*

> *"Going back maybe to my point, the customer will hear you, but unless they know a bit about your product and might have some basic level of trust in* [case company] *and again like a lot of them, obviously know* [case company] *and they might then say even if they hear you, OK, give us one set of liner and let's see if you're truly going to deliver, but we're not going to sign a contract for three years just because you told us it's going to work. So, if I'm the customer, say no worries, I like what you told me, but we'll just buy one set and that way we're not hooked into any contract. So, I would say still I still find it challenging to be honest with you, even if they have issues on site and to just go and sign a long term contract. Yes, they might buy your product as a trial, but they'll do a trial before they go into a full LCS contract in my opinion." (Interviewee A)*

> *"Because you know, even with existing customers, sometimes it's very difficult to get them to be open with us. So, you know, I keep imagining if it's an unknown*

> *customer, it's even more difficult. And the reason why it's difficult, it's several reasons actually. But we have customers they might be afraid to expose themselves. For example, ohh, I've been here for five years and now the supplier comes and improves 10% my throughput, why? What will my boss think about me? So, there is this problem. We have to work with that as well. And of course there are some, I don't know maybe confidentiality concerns like I have a process here that I don't want anyone to know or something like that so yeah there are some issues on the way." (Interviewee N)*

Regardless of the aforementioned methods to gain an understanding about the different opportunities with specific customers, upon mutual realization of the existing challenges and potential solutions, the real work towards fruition and bringing the solution alive begins. At this stage, it roughly contains three distinctive sub-activities related to the overall solution development and establishment of the offering scope which are qualification, discovery, and solution development. According to the interviewees qualification in this sense refers to the feasibility of facilitating the solution. The provider must study the bottleneck items closely and determine if they have the required experience and expertise in solving the issue. Similarly, it needs to be established whether the customer has interest in performance-based solutions. Through this, the provider is essentially internally able to establish the suitability of the customer and their situation or in other words *qualify* the customer.

> *"Well, I would say it all starts with the qualification, right. The qualification is that OK I think there's something here. However, we've got there, if it's through an audit or a visit or customer called us, whatever, we are now aware of the customers issue, right." (Interviewee N)*

> *"The first thing is to do the qualification. OK, customer has this issue. Do I have experience with that? Do I have to necessary know-how? Would the customer be open to discuss performance based yes or no. So, it's like a go or no-go vote for the performance based approach, right." (Interviewee N)*

> *"So here what we do is we start to talk internally as well as externally and internally to see what can we do for this opportunity and then externally we talk to the customer and we try to influence them to get more committed to this, but also to get them help us develop what they need because it could be many things. So, we want to do that with them." (Interviewee A)*

Next up in line is the activity described by the interviewees as discovery. Discovery refers to going deep in the customer's process, understanding their true needs, goals, and challenges in order to truly establish what is best and of most value to the customer. Although chronologically presented after qualification, these two activities often happen simultaneously as one cannot exist without the other and for example adequate qualification of a customer usually calls for deep understanding about the challenges and needs. Therefore, it cannot be stated that these sub-activities occur in any specific order, but rather in unison, implying a more interconnected or interdependent relationship.

> *"Then we go to the, let's say the discovery phase." (Interviewee N)*

> *"Discovery is all about understanding deeply customer needs and their problems and what and how we could do to support them in terms of reaching their goals. And then again, it's from the view of performance because if the customer says – now I'll get back to the first discussion we had if the customer says I need an extra crusher. We can simply, OK, here's the proposal. I don't want to know why you need the extra crusher… And we are living this with* [customer] *here in Brazil because they said we need extra filters here but we know that their current filters, they can produce much more, right. But again, customer has their and they bring to the market what they think is the solution. So, the discovery will also support the qualification in terms of, OK, maybe this is not what they need, maybe we can do it differently, maybe less money, right. And better results." (Interviewee N)*

> *"Qualification and discovery, they can go side by side because sometimes you need the discovery to do a proper qualification." (Interviewee N)*

After qualification and discovery are conducted, the provider has all the required information to put together the solution which involves activating internal discussions with relevant business lines and onboarding them to the sales case.

> *"OK, you have to qualify, you have to discover it, and once you finalize the discovery, you have all the necessary information to put your solution together. And then it's this solution development. You'll get all the information, you'll bring together everyone who should be involved with them. And the more complex is the solution, the more departments and teams you will have together, right. And then you will discuss, you will check what can be done." (Interviewee N)*

Even though the opportunity recognition activities and methods conducted in the pre-negotiation stage might give a foundation of understanding about the issues, in the overall solution development stage where the offering scope is also established, deeper level of knowledge is accumulated about the issue and potential solutions which although as mentioned before consists of many internal activities, a fair share of that work is conducted in collaboration with the customer. The work devoted to the development of the solution is according to the interviewees often iterative meaning that as demonstrated, customer might have a general idea of a solution which is then shaped by the provider's suggestions which is then edited again by the customer. Although, customers do shape the eventual solution and it is often very much customized to their specific needs, the solution is constructed of pre-defined pieces of offering in different packages, helping in establishing the scope and showing elements of offering modularization.

> *"Of course, both sides discuss the solution and customers express their ideas and needs, but then we also show our offering. We have a well-defined line card with various levels of services, especially with filters." (Interviewee I)*

As one can possibly imagine, without any type of control or alignment between the sales and buying teams' perceptions and desires, the process would be very perplexing plagued by constant rowing of back and forth. Therefore, it is critical that adequate care and attention is given to discussing and shaping the solution (i.e. establishing the scope). It was highlighted by the interviewees that alignment is achieved by setting goals or targets for the process. Similarly, establishing a designated team for the sales case helps to bring clarity to the process and enables more efficient progress as people are working on it together at all times.

> *"With the goal setting we try to spend as much time as possible on scope definition internally and also with the customer and we see that many times people want to quickly jump over that step and quickly go and say give me the price. I want to forward this to the next manager in line to have look at it and make a decision, but uh, we've learned time and time again when the scope is kind of rushed through, it's only a matter of time for it to come back and bite you…and now everyone is*

back to Square 0. So, scope definition is so important and we try to spend time with that but also…we try to define a team. So, the team usually will have an LCS salesperson, that technical sales support the site account manager talking to the customer and the proposal manager sometimes, and the whole idea here is as the opportunity progresses and it takes months and months of discussion and development, you want the same team to be together and kind of work on that. So that as you clarify the scope, the goal, the approach, the solution you're doing that together to make sure that at all times you're aligned. So, you don't want to come and say, you know, I'm going to offer the customer to hold this or whatever and then later on the technical person comes and say, no, I disagree. This is not the right way to do it, so by keeping those people together as well as defining stakeholders from the customer side you ensure that as you move forward, everyone is aligned…and if there is a conflict, you fix it at that step, not when you already ran 200 miles ahead, and then you need to come back." (Interviewee A)

Similarly, the establishment of the offering scope and development of the solution can be a long process sometimes taking even six to twelve months, but according to the interviewees for high value offerings such as the performance-based lifecycle services, clear scope establishment and signing off by both parties on what is being agreed is a must before discussing any prices. At times, this can be very difficult for the salespeople as the opposing side's professional buyers are usually tasked with finding the solution quickly and at the lowest possible price.

"Often, as the customer wants to see the price tag as early as possible, and then we're also accustomed in the transactional business that the price is given quite quickly, and then again when building this value-based sales case, there should be, like, that first the scope is built so that it's good for both parties, and both have signed it, and then after that, we start calculating the price, and it's also a kind of discipline, that our salespeople and customer representatives shouldn't give the price before we've clearly gone through the scope." (Interviewee C)

"Then we probably spent, let's say, 6 to 8 months, maybe, kind of going back and forth with the scope, what to include in it. The customer initially stated what scope they would like, and then we offered a bit more to it, and in the end, the customer was quite satisfied with what we managed to add to that scope." (Interviewee C)

4.4.2 Opening of the performance logic

It is quite self-explanatory that when a provider engages in negotiations aimed at selling a performance-based solution, they must open the performance logic within the offering context. This is tightly related to the dimensions of the performance-based contracts discussed in the theory section of this thesis. When asked about the timing upon which performance is brought up in the negotiations and the sales process, the interviewees were unanimous that it should take place at the very beginning when one starts to develop the solution internally and together with the customer. It can be determined that this is related to the aforementioned qualification of the customer where it has to be established whether the customer has real interest towards performance-based solutions.

> *"It comes up right there in the initial phase. It may of course change as the process progresses, but typically in the early stages, because the whole case is then built on the performance basis. The customer provides input on what kind of agreement they are seeking, whether they want to outsource maintenance or just want technical support for their own technical personnel. So, it does start there right at the beginning." (Interviewee I)*

> *"From my perspective, it forms quite quickly. It becomes quite apparent early on that this case could very well fit into increasing availability." (Interviewee J)*

As mentioned, the discussion about performance begins at the very beginning of the solution development stage. After the provider is able to gain an understanding and evaluate the current process, performance levels, future ambitions, and current challenges, they are then able start to develop the solution from a performance-based perspective. The accumulated knowledge is leveraged to comprehend what is truly of value to the customer or what are the specific resources and activities needed to achieve the desired outcomes. These aspirations then need to be transformed into performance measurements and KPIs which then enable the whole construction of a performance-based contract.

> *"I think the difference between value or performance compared to the ordinary sales process is thar it could be at the early stage and usually that's much better to do at the early stage of identifying with the customer the value, right and at kind of towards the final stage when the scope is well defined, you identify the performance measures, the performance targets, right because you need to understand the value very well. Then after that you design the scope that will support you to deliver those values and once you and the customer agreed to these two steps, then the last step is like OK you told us what's the value we designed the solution to bring that value, but what do we call success and that's where you come into that performance that and measures or targets or KPIs and you need to define." (Interviewee A)*

It was also expressed by few interviewees that from a performance perspective, the scope and the relevant KPIs need to be carefully and collaboratively established because in practice it might take some time for the solution to start showing the desired benefits.

> *"The scope that is to be delivered to the customer has to be established clearly, so that they know what they are ordering and we know how we are delivering it, and also that it is agreed upon how it is monitored, because in these performance-based contracts, we may not necessarily be able to show the relevant savings or the performance outcomes promised in the first or second month, so it is a long-term endeavor. But it has to be agreed upon as part of the scope. KPIs have to be agreed upon, and then those KPIs also need to be monitored, and it should be possible to show them to the customer." (Interviewee C)*

Similar to the performance measurements that are used to identify and track the progress, roles and responsibilities need to be discussed with the customer. According to the interviewees, performance-based lifecycle services usually warrant changes in the business model i.e., how value is being created, captured, and delivered. It was expressed that with performance-based contracts where reimbursements are for example paid based on produced tons, a significant portion of the production risk is transferred to the provider. Then it becomes the provider's responsibility to utilize resources and capabilities to get the most out of the contract which in turn acts as an incentive for the provider to invest into their offerings and improve overtime to get greater returns.

> *"Additionally, determining responsibility matrix, specifying which party is responsible for what, for example, during shutdown periods or otherwise, such as, if we*

think about liners, the ordering and delivery process, who gives the indication that they need to be available by a certain date and how it works, often we have lost profitability in contracts because we haven't been able to specify the responsibility matrix accurately enough, so when delivering the contract on-site, there is usually a project manager or contract manager who is responsible for ensuring that things are implemented within a certain timeframe, so there may be a situation where the customer comes and says, 'Hey, there's also this gearbox, so you could also do some work on that,' and it easily just goes like that, so if the person responsible for the contract doesn't clearly know what is included in the contract or if it hasn't been clearly defined, then it just gets done so that the customer is satisfied, and then it may cause us additional costs." (Interviewee C)

"What I tell the customers is that when you sign an LCS contract with us, it's good for you, Mr. customer, because now we have every reason to do our best to deliver on our commitment to you because if I don't, then I'm in trouble. I've signed this very nice contract with you and now I cannot be paid. I cannot do business with you because I'm not delivering on my commitments. And if you look at it from a slightly different way and actually in an ironic way, if we supply a part to a customer on, let's say, a general transactional business, we get paid straight, right, and let's say the part breaks down. What happens? The customer needs to order another one. So, we don't have such a good incentive to try and do our best… The more we sell, the more money we make. In an LCS performance space it's different. We want to fix it because unless we meet a performance level, we not going to get paid." (Interviewee A)

"In transactional deals, we sell something, and it is customer's responsibility to make it function properly, in order to achieve their targets. And they can do it pretty well. We can think that performance-based services deliver less risk and higher reliability to customers, and it is up to the supplier to invest what's necessary, in terms of resources and know-how, to achieve the targets." (Interviewee N)

However, it was also expressed by the interviewees that not always does the contract have to contain such a significant transfer of responsibility. In fact, in some cases the customer might be afraid of losing the control of their production. Indeed, it was highlighted that the agreed performance outcomes could still be achieved by the customer running the process and provider acting as a consultant, providing strategic advisory.

"And in that sense, what I mean is that our model isn't always just about taking full responsibility and that the customer... The idea is also that the customer can continue steering their ship and we just help strategically." (Interviewee E)

The interviewees often highlighted that the greatest benefit for the customer in the performance-based lifecycle services is the fact that they can centralize their risk and operations into the hands of one provider who has the outmost interest and desire to do their best to deliver on their promises. However, it was observed that rarely did the interviewees take into consideration that dependence on one provider could also be seen as a disadvantage.

> *"I think because today if you look at the customer and how they do business normally they engage with all these vendors…and I think the headache to the customer at the end of the day is that the site and the production of that site is the customer's ultimate responsibility. What this means is that the customer has a commitment to their own clients who buy their production, right. But if let's say a crusher all of a sudden is facing major quality problems and the customer is not able to meet the production agreed targets with their external customers, then it becomes their headache…then they are trying to get* [case company] *or any other vendor, chasing them all the time to come and fix that problem. In normal transactional business this is problem because, no vendor will agree to take big liabilities just because they gave you a part or sold you an equipment. This is where the customer sees a difference in a performance based." (Interviewee A)*

It was also discussed how the timing in opening of the performance-based business model impacted the sales process and success. It was expressed that the status quo where performance is brought into the conversation together with the scope has some disadvantages. As iterated, when discussing the scope, the customer is likely very eager to hear about the pricing and often creates pressure for the salespeople to turn in price lists, simultaneously falling back into the transactional mode. Far less common, yet highly effective approach highlights the role of relationship development not only with the customer but also internally. Indeed, when a lifecycle services salesperson was able to tag along with their CAPEX colleagues and present the performance logic to the customer, it was deemed very effective method practically eradicating the price driven focus.

> *"When we sell an equipment or plant, I think right from the start, together with the CAPEX colleague, we should fully pursue the idea so that we can immediately initiate the cost-per-ton and performance contract…in my opinion, in those conversations it starts quite timidly; there are some discussions about spare parts storage, so it very quickly moves to basic spare parts discussions, but it's not at all the*

> *performance discussion. At least in those discussions where I have been involved in larger cases and the CAPEX colleagues have been proactive and asked me to participate, and then when I have presented the business model with the cost-per-ton plus KPI, the conversation is quite different with the customer, so then we no longer talk about what the scope actually is and what the spare parts prices are and whether discounts are available, so it's a completely different conversation in the end, and actually this year I have been surprised in some discussions where the customer has asked more like, "But how do you ensure these KPIs, what is your methodology for that?" and then you explain a bit, you elaborate on that, "This much and that and these are the tools we have." So, my point is that when the conversation revolves around that business model, then you don't have to discuss the scope so much, like what kind of organization you have and how many people, etc. But if you explain it like this, "OK, we'll put in this many spare parts, this many people," then it's very easy for the customer to start challenging and get into the cost discussion in the end, so in my opinion, choosing the timing and direction is important." (Interviewee E)*

After the offering scope and roles and responsibilities (i.e., value creation) are established, the provider and customer engage in pricing discussions. It was explained by the interviewees that there are few different pricing models. The most common model is the cost-per-ton in which the reimbursements are based on produced tons. On the other hand, pricing can also be based on specified KPIs which then enable the introduction of bonus/penalty clauses. The interviewees expressed that usually the pricing is based on a mix of fixed and performance, mainly due to risk aversion reasons. It was established by the customer interviewees that they have very positive perceptions about tying the pricing to achieved performance outcomes as it shows provider commitment and is easier to budget. However, according to the interviewees in some respects performance-based pricing was being perceived as a profit shearing exercise where the fairness of the share of value given to the provider was questioned. It was also explained that the calculation process is often iterative where both parties calculate rates and come together to discuss them.

> *"Typically, our approach has been that about 60-70% is fixed, and then on top of that are the variables and KPIs if needed. We must have a minimum that if the equipment is idle due to some other reason from the customer, we need to ensure that the site team's salaries are still paid." (Interviewee E)*

"It has also been that the customer sees the cost-per-ton approach as a profit-sharing model. And we have somewhat failed in communicating that if the customer improves and benefits significantly from this, then we also should earn our share." (Interviewee C)

"We calculate the price, and the customer also calculates it themselves. Then we discuss it and try to justify. If we are really far apart, then we may say that with this scope, it is not possible and suggest changes in the scope." (Interviewee C)

"And once we know the tonnage price, it's easier for us to calculate the annual spending, plus it shows a certain level of commitment from [case company]." *(Interviewee O)*

4.4.3 Value proposition development and communication

When selling a performance-based lifecycle service solution, developing the value proposition builds on the previous activities and capabilities demonstrated earlier in the process. It starts by developing in-depth understanding about the customer's business, process, operations, challenges, and aspirations. Based on these the provider is then able to start to develop the potential solution and as mentioned, this work should be done in collaboration with the customer to emphasize partnership and value co-creation. Building the value propositions, interviewees highlighted that they have a good understanding about the benefits that their offerings can bring to the customer which can be communicated to the customer relatively easy.

"We know very well, based on extensive experience, the kind of benefits and advantages we can offer to the customer through our products." (Interviewee J)

However, when applying a value-based sales approach and especially in this specific context, the true value of the offering lies in the reason why the whole process was initiated in the beginning which is that the customer has some challenges or goals that they need solve or fulfil, not in the product features and technical elements. Yes, the customer might be interested in hearing how the solution functions especially when presented to certain audiences, but at the end of the day, the customer is driven by profits, so

highlighting the end-targets or outcomes should be a priority and the features and technical elements secondary.

> *"There are several benefits to the customer in the performance-based services. In my opinion, the most relevant is the fact that in performance-based services, supplier has even more interest that results are achieved, as supplier's gains depend on the success of the project. To be very simple, what customer expects to see as a result of the performance-based service is what originated the whole discussion: their end targets." (Interviewee N)*

> *"Well, about the drivers, firstly, as I mentioned earlier, money is quite a strong motivator in many cases." (Interviewee C)*

A critical activity in this space is again collaboration. Throughout the process, proximity to the customer is in a key position and building a feeling of true partnership and co-creation is essential. When the business case is truly developed mutually, compiling and presenting the value proposition becomes much less complicated. As expressed, it all stems from the ability to understand the customer and they are the one that can help in unlocking the underlying reasons for problems and demands, emphasizing the role other activities such as discovery when developing the solution.

> *"Customer requirements are the starting point and center of the whole exercise. They should be the focus… If you do not understand the requirements very well, you might end up losing a lot of time, for you and the customer. That's why the "discovery" phase is so relevant to the performance-based solution: you have to be patient and take your time understanding the roots of customers' problems and demands." (Interviewee N)*

When it comes to communicating the value proposition and especially the value in the solution, value quantification becomes a key activity. When asked about value quantification, the interviewees expressed that the case company has developed different value calculators designed to showcase for example the extra tons that can be gained out of the process or their monetary value.

> *"Yes, so there are, at least within my area of responsibility. So, for both crushers and mill linings, there are value calculators available, from which we can really get out those extra tons that can be produced or then also what those tons mean in monetary value." (Interviewee C)*

> *"Yeah, we do have different calculation models, so for example, here we can calculate what a 2% availability improvement means in such a copper concentrate filter. Or then we can calculate the impact of a half percent drop in moisture content in the concentrate, which has a huge effect." (Interviewee J)*

However, it was also mentioned that these calculators are not used enough and that there could be a case of lack of awareness in terms of their usability and potential. Similarly, it was commented that in terms of the different value points highlighted to the customer, not all of them are quantifiable or at the very least are quite difficult to calculate. Out of the different points of value that were described, three categories can be recognized. These three categories of value are economic, technical and environment or sustainability. Out of these value points, those related to economics were the most likely to be quantified, as for example putting a price on the extra ton is quite a straightforward process due to ores being commodities. On the contrary, those points related to technical are more focused on alleviating the pain points perceived by the customer, whereas sustainability can be at times a sum of multiple variables, complicating the quantification process. Additionally, dyadic value or relationship value is often highlighted which can be an element in any of the three aforementioned categories. For example, having a partner willing to do anything to co-create the value and reach the targets is communicated, but it is difficult to put value on that.

> *"But let's say, their use in the sales process is perhaps a bit frustratingly limited. In my opinion, those calculation tools are quite good, and we should probably be more courageous in utilizing them." (Interviewee C)*

> *I think we need to and we have agreed already internally in BDH that we need to capitalize on those calculators and put them to more into practice and test because it's only then that we will be able to see if we're hitting the nail on the head or if it's just being hammered crocked, but yeah, we do have the tools and the value calculators are those tools and I think we're bringing up the awareness in the organization that we have those tools available. (Interviewee P)*

"Basically, any way we can help them to increase production. That's one point of value because it translates into revenue for them. Another thing beside the production is actually efficiency of their operation… Efficiency is quite a broad range of things, so you can look at efficiency by minimizing downtime or by getting things done faster." (Interviewee A)

"Of course, another value is environment as in sustainability." (Interviewee A)

"Safety is extremely important to the customers but it is quite difficult to quantify." (Interviewee L)

In terms of the different calculations made, the interviewees highlighted they do not have as a company a guide or list of sorts to tell which measures or KPIs should be presented for each target audience. Elements quantified and communicated ranged from CO2 emission cuts to water and electricity reductions all the way to increased throughput both tons and dollars as well as impacts on customer's profits and revenues. Total cost of ownership (TCO) and return-on-investment (ROI) calculations were less common.

"I don't think we have a like a kind of a document where people can go back and say, OK, if I'm talking to this group of the customer, then I should focus on these things. But I think it will come more and more because they are doing the sales training, which touches exactly on those topics." (Interviewee A)

"Another good example is TCO, which is total cost of ownership. It's an extremely hard one to measure and I see sometimes we put that out as a value selling and I absolutely think it's a strong point, but how do you quantify a TCO? It's nearly impossible because you don't even know how much the customer pays for the freights, for example. You don't even know what other maintenance plans the customer put. What if the customer is putting very stringent maintenance plans and therefore, they might be spending more days on maintenance when [case company] *are thinking that hey, look, you don't need to spend that long. So, it becomes a bit of a tricky one, right. The TCO becomes hard one to quantify." (Interviewee A)*

"Well, I would say that the return on investment is probably something that isn't used much. And it seems to me that for the customer, at least when discussing with maintenance, procurement, or production, it doesn't matter much to them. Maybe if we talk to the upper management, then ROI may be a significant thing, but otherwise, it's usually about availability." (Interviewee C)

> *"*[Case company] *is opening a big new service - and already our sales team, they quantify the savings to the customer, by using that center versus using the center in* [another location] *which is the existing center. Because that center is much closer to the main mine sites of Australia and it basically could be 2 hours away versus 24 hours away from here by road and therefore, they quantify both, they quantify the cost of shipping because we know the truck cost and all that, they quantify the CO2 emissions because there are calculators for that based on the distance and it is very quantifiable value. So, we show the benefits to the customer and the value of working with us." (Interviewee A)*

In the quantification process, the provider has a big responsibility but they also need the customer's assistance. In this regard, it was explained that the relationship between the provider and customer plays an integral role as the quantification process requires certain level of transparency and willingness to share sensitive information about the production as there are many different parameters that need to be considered that are reliant on the customer's input.

> *"Customer needs to be fully onboard for a complete and reliable value quantification, as many of the variables involved are known only by the customer, such as existing process parameters, KPIs and costs. Future demands are also important and need to be taken into consideration, as a performance-based contract relies on well define baselines, and sometimes requires some time to deliver agreed results." (Interviewee N)*

> *"It depends on the openness that we have with the, with the customer and the level of relationship." (Interviewee P)*

Secondly, it was noted that the provider must adopt an approach to mutual quantification carefully. It was mentioned by the interviewees that perhaps the typical approach to value quantification and communication is "a professor lecturing a student" which can come across as arrogant quite easily. Being modest and using the customer as a brainstorming or verification partner where you express that this is what I have calculated, how do you see it, what else does it need, has shown excellent results.

> *"But then also our approach is one thing. That a few times we can be perceived without noticing and with all good intentions in our heart, we can be perceived as the professor trying to teach a student, whereas "this is how I see it", "How do you see it?" I think that that could be the standard point, and in this particular case, with the development of the spare parts consumption guarantee. I think we were humble enough to hear the challenge that the customer provided us say, yeah, I can do this. Here it is." (Interviewee P)*

> *"It also depends how humble we are. Because sometimes we think that we go there and we save their lives and I don't like that approach at all myself. But I have seen that we have used that approach a couple of times. So, if you ask me, I think we should always be humble and say, "this is how much I have calculated". Can you provide some inputs?" (Interviewee P)*

Further discussion about the role of a customer in the quantification process, indicated contradicting opinions. Some interviewees saw the provider driving the quantification process and conducting the calculations with the support of a customer, whereas some expressed that customer is the better party to conduct the calculations. It can be speculated that this difference in opinions reflects the interviewees experiences on the customer's willingness to be open and transparent. In those cases where the customer is unwilling to share data, it can be a mean of communicating the value to the customer by stating that the solution can for example increase your crusher availability by two percent and then let the customer internally calculate what that means in terms of financials.

> *"In my opinion I think the customer is the best party to quantify any value because in a way you advertise the value selling but if you measure it, someone could argue back that you have a conflict of interest, right. So, obviously you're going to try and make the measurement look good because you're selling that. And while the customer for two reasons, A) because they are not selling it to themselves, so they have a good end interest to have a genuine quantification of the results. And B) because they have all the data, right." (Interviewee A)*

> *"We don't ask them to calculate for us, , we do our calculation, but then we are humble enough to say I might be wrong or there might be something that I'm not seeing. Here is how I calculated this." (Interviewee P)*

With value quantification being relatively difficult sometimes due to inability of a provider or unwillingness of a customer, the interviewees highlighted that using and showcasing references is increasingly essential. In this regard, it was expressed by the interviewees that is creates trust and increases reliability. This highlights the provider's capability to maintain an adequate bank of references as well as the ability to recognize which cases are most relevant to the customer. In this sense, the mining industry is also quite difficult because there are so many variables that affect the process, so it often enables the customer to question the feasibility of the solution and whether the values can be realized in their context. In some regions such as Brazil, it was expressed that sites and customers discuss with each other whether the case company or its competitors have the capabilities to deliver on their promises.

> *"References are the best way to prove your credibility." (Interviewee N)*

> *"Also, customer must trust that supplier is capable of delivering what has been promised in the first place. Therefore, having successful references is an important factor to convincing customer on going from transactional to performance-based approach." (Interviewee N)*

> *"Yeah, they often require something to kickstart the conversation, like showing what has been done before. The problem with them may be that they are often tied to a certain ore or a certain area, so their usability as a reference may suffer. If we say that 'in the Nordics, in Sweden, it's done like this,' then in India, they might say, 'yes, but we don't think about things that way.'" (Interviewee C)*

In terms of achieving the best results with their value proposition communications, it was expressed by the interviewees that a key capability is resonating focus. This means selecting the most important value points specific to the target audience. It was explained that it could be the case that multiple different value points and benefits are raised and listed, but upon presentation, those resonating most within that audience are discussed. Building the resonation is rooted in the collaborative work done in order to establish what is truly of value to the customer.

“Let's say, often we probably start by trying to load all the benefits into it, but then we do try to compile them according to the audience, like what is important to them and communicate those.” (Interviewee C)

“You have to really focus on the benefits that the customer already acknowledges as important benefits to them.” (Interviewee A)

“I had a discussion with the maintenance area manager, and he was a bit hmm, so I asked, 'well, how about this concept, do you know it?' And, well, he was a bit vague, so I asked if I could explain and draw a little on the board, just listed these 3-4 key value points and started asking about sustainability, how important it is to you, really, because everyone talks about it. Carbon footprint and so on. And he was like, 'yeah, it's constantly a pressure for us, we need to find initiatives for it and such.' So, identifying what is important to the customer and focusing on them.” (Interviewee E)

Additionally, from value communication perspective, according to the interviewees a typical approach and activity was to compare the possible solution against the current process and the baselines in order to see how much the potential solution could actually benefit the customer.

“When you are selling performance, the KPIs you are guaranteeing will say everything. We are not selling features and functions, we are selling the results. And if the discovery phase was done correctly, it should be easy to show customer how they’ll benefit from the solution, comparing the baseline with what we are offering.” (Interviewee N)

“You can certainly go to the customer and say look based on last year, you've shipped 1000 shipments from Perth to your site through [case company] and therefore you know you're going to save, I don't know this much of money, this much of CO2 with the new service center, it's all quantifiable.” (Interviewee A)

4.4.4 Influencing the stakeholders

As highlighted in the literature by for example Töytäri (2018), activities and capabilities related to contacting, identifying, and developing key stakeholders and the formed relationships is quintessential to the value-based selling process and its success. As observed

from the interviews, these capabilities are demonstrated and leveraged as well as activities undertaken throughout the selling process at different stages with one single point in mind which is finding the relevant stakeholders in order to influence their decision making.

When reading the academic articles, one is faced with a lot of information about who exactly should the practitioner try to influence and target with their communication efforts. The most common finding is that the efforts should be aimed at people who are high enough in the customer's organization to directly influence or in other words have a say in the final decision. Based on the observations made during the interviews, this logic however, can be considered a partial paradox as it possesses many practical challenges. The assumption that providers have always the opportunity to influence the top decision makers is faulty. In fact, the influencing is usually done on people who indirectly affect the final decision. In the aggregates and most definitely in the minerals processing industry, lifecycle service agreements tend to be monetarily significant investments spanning across multiple years. This means that these contracts are often reviewed and approved at the C-suite executive level who do not take part in the negotiations directly, but rather trust and listen to their subordinates.

> *"Yes, so when the contract is accepted and signed, we have certain limits, in this case, the contract's annual value was so high and the total duration was so long that it went all the way up to* [customer's] *CEO for approval... And I heard the same was true on* [case company's] *side, that it went all the way up to the CEO for signing." (Interviewee O)*

> *"Nowadays, especially if the payback period is really long, then it goes all the way up to the CEO for evaluation." (Interviewee J)*

When it comes to selling performance-based solutions, the interviewees highlighted two different approaches. Firstly, the provider can apply a top to bottom approach which can be considered more effective according to the interviewees. In this approach, the provider discusses and acquires sponsor like support from the customer's management to initiate the process and solution development. This approach often demonstrates and

leans on the capabilities of the provider's management to engage with their counterparts in the customer's organization to sell the idea.

> *"Let's say that the whole organization's support needs to be involved in it, so often our salespeople, of course, talk with the buyers, and if we think about the buyer, buying something like this can be a really challenging task, so I would see that it starts with getting it sold to the upper management on the customer side, and often that requires involvement from our organization's management in that sales process. And I would say that in that regard, [case company] is in a pretty good place, because our decision-makers are quite enlightened and capable, so if we present these kinds of things, often they are ready to do it." (Interviewee C)*

> *"I would say that the stronger impact method is certainly being able to go with the top-down approach." (Interviewee C)*

As discussed in the previous chapter, from a value-based selling perspective and specifically when discussing value with stakeholders from different organizational levels, value emerges and takes different shapes at each of those levels. Value-based selling, characterized by value quantification and communication throughout the sales process, takes the shape of financial improvements when discussed with strategic level management. This indicates that when discussing and thus influencing the decision maker at that level, efforts should be centered around highlighting the improvements on the customer's top and bottom line. It was also expressed by the interviewees that talking with the management level requires proximity to the operative side so that you have a better understanding about their targets and plans.

> *"Well, in my opinion, the general guideline or rule is that the consideration of the bottom line and cost level needs to involve senior management and upwards. It may not necessarily be the shift supervisors, for example, who are the right group for this; perhaps they are more inclined to bring up the problems they face and how those problems can be eliminated from their daily tasks. But when we talk about value selling, then it needs to go to the level that constantly feels the pressure of how we could save, do things better, and somehow integrate that topic as part of their development portfolio and initiatives and so on. It doesn't progress from the level of an individual planner or shift supervisor, so it's quite ruthlessly that we need to start looking a bit higher up the ladder." (Interviewee E)*

Secondly, a bottom to top approach was highlighted. In this approach few different capabilities are emphasized. The provider has to develop relationships to the customer's operational, procurement, and maintenance levels at the site. These relationships are then leveraged to discuss issues and challenges and draft solutions which in turn are then sold internally by the individuals in the customer's organization to their managers. It was expressed however by the interviewees that this could be challenging as rarely do the sites have authority to sign these types of contracts and they need to be provided with tools to present the solutions to their managers. Similarly, these individuals representing procurement, maintenance, and production might have conflicting interests and incentives, making the approach even more challenging.

> *"And of course, there's also the possibility of a Bottom-up approach, which is when we negotiate with the site directly… But then there should be the right people from the site represented, meaning there should be procurement, production, and maintenance all at the same table. So, when we discuss with these three simultaneously and tell them what we could bring to the table in terms of value, it's another option, then they are given something that they can then use to justify the investments to their management." (Interviewee C)*

> *"And if you think from the customer's perspective, the production side is naturally responsible for production, and the maintenance side for ensuring that all equipment operates smoothly to achieve production targets. Even though they aim for the same goal from an external perspective, including procurement, internally their personal incentives may conflict a bit. Usually, in procurement, the focus is on getting discounts, purchasing at a lower cost than before. Similarly, in maintenance, it's somewhat the same, aiming to provide the same service at a lower cost than before. However, they may often find themselves at odds with the customer's production counterparts, as the production counterparts are more focused on what they can produce and how they can deliver what they've promised, which may not necessarily include the same incentives as maintenance or procurement." (Interviewee C)*

When discussing about what is of value to the people at the site in maintenance and operations roles, one is no longer discussing about financial aspects, but rather process level elements such as how to improve the process to reach production targets or how to make the life easier at the site. It was also presented in the interviews that this level

requires more technical competencies in order to understand the issues and formulate solutions.

> *"If we're discussing with production, then we focus on availability, tons, and other factors, and then when discussing with maintenance, we try to go through how their life is made easier with this, for example, that they have fewer unexpected shutdowns because something breaks or something else unexpected happens." (Interviewee C)*

When it comes to activities and capabilities related to developing these relationships, the interviewees expressed that during negotiations there is very little done. Often, the relationships are formed over the years as the provider is engaging with the customers in different contexts. However, few different notions were made. First of all, account management practices were mentioned. With larger key accounts who have a designated key account manager, it is their responsibility to act as a gateway and ears towards the customer while simultaneously developing and nurturing the relationship. They also communicate with the higher levels of the customer's organization. The other level is site account managers who do the same thing but with specific sites, and they engage with for example customer's plant management. When it comes to active contracts, the case company has contract or service managers ensuring successful implementation of the contract. They develop relationships to the operational and maintenance levels, making their role important in sensing and recognizing opportunities.

> *"No outstanding actions are taken related to building the relationship. A good relationship is the basis for successful deals and is often based on your history with the customer" (Interviewee N)*

> *"Well, it's so that we need to have a continuous process at the site, and if we start right from the grassroot level, then we should be attentive to what our maintenance personnel tell us. After hearing from them, then the site account managers should take note of those hints and have discussions with the customers, saying, "We've heard that you have these and these challenges, and we probably have potential solutions for how to proceed." (Interviewee C)*

> *"Site account managers are the first level from* [case company] *side. They are the spearhead. They are maintaining the relationship with the customers all the time… The site account managers are also involved in many cases and are the first point of contact to the customer, so their role is critical." (Interviewee P)*

Lastly, influencing does not only apply to external stakeholders, but also to internal. As the negotiations involve many different internal stakeholders from different roles and business lines, there is also a lot of internal influencing that needs to happen in order for the contract to get signed and approved. It was expressed by the interviewees that this can in fact be one of hardest parts in the process. When different business lines identify and put together solutions, it easily becomes a battle for priority.

> *"Often internal sales are almost as important as external sales, so we need to somehow convince our sales manager, who is responsible for certain customers, that this concept is now good, and on the other hand, we should also convince our product line that hey, this customer seems to offer an opportunity for this, so it's not necessarily easy." (Interviewee C)*

4.5 Post-negotiations

After the contract is signed, the process is handovered from sales to contract execution who are responsible for the implementation of the solution and delivery of the intended value. As highlighted in the literature from a value-based sales perspective, following up the performance, verifying and documenting it is important. At the case company, the follow up is in indeed a critical activity and it is essentially built in the performance-based solution logic because the process is driven by pre-defined KPIs.

> *"The follow-up is really natural. The way we sell performance-based is on certain measures and then we are normally paid based on the measures. So, it is quite easy to follow-up on that." (Interviewee N)*

During the development of the solution, a critical phase, as highlighted, is the identification and development of fitting KPIs. These KPIs are set in the contract and are then monitored closely when the process is ongoing. The interviewees emphasized that a pre-requisite for performance-based services is some sort of monitoring agreement. In some

cases, sensors and other digital elements are included in the solution design, enabling remote monitoring and lives access data through dedicated performance centers.

> *"We don't provide KPI guarantees if the device is not connected or then the data has to be entered manually. It depends a lot on the customer." (Interviewee E)*

> *"For all this remote monitoring, we have the performance centers and what they do is they actually monitor this data continuously… they have quite good analytical tools which they use to predict how the equipment is behaving and try to catch things before it happens." (Interviewee A)*

> *"In South Africa under one contract, we have 12 filters, all connected, and maintenance or various availability engineers constantly analyze the data." (Interviewee E)*

In many cases, however, customers are very hesitant to grant access to monitoring systems, making it more difficult for the case company to have a visibility into what is going on in the customers' process. The interviewees explained that when digital monitoring is not available, there are people at the sites manually entering and sending the data.

> *"The performance contracts we have involve collecting and recording performance data continuously on a daily basis. For example, in India, under the LCS performance contract, we have 50 filters, and the maintenance organization there compiles data from the process daily, allowing them to continuously track performance metrics." (Interviewee E)*

The progression of the performance is followed and communicated to the customer in regular intervals usually either monthly or quarterly. KPIs are reported as a part of dashboard that the case company is responsible for putting together. In addition to the defined performance element, the performance-based contracts at the case company include an element of continuous improvement where it is the provider's responsibility to bring potential initiatives to the table. According to the interviewees, both of these topics are discussed and followed in the meetings which focus very much on operational topics and are therefore technical in nature.

> *"So, we have execution team to all these contracts and then part of their job is to continuously engage and kind of check how the contract is behaving and also doing that with a customer… And also, the KPI's a lot of those KPI's are reviewed by* [case company] *and the customer on a quarterly basis. So, everyone gets to see them, gets to see if we're meeting the targets or we're dropping and, so that's another way to kind of reflect on the value." (Interviewee A)*

> *"In these contracts we have technical meetings usually minimum four times a year where we sit and review like what's been done, what can we improve, where are the areas you see we are lacking something when it comes to spares and maintenance. And these meetings are technical." (Interviewee M)*

> *"It is monitored through sent reports, measurement bulletins, and management by the contract cell." (Interviewee Q)*

It was furtherer discussed with the interviewees whether commercial topics are discussed with the customer and how often. In this regard, the interviewees expressed that more time should be dedicated to commercial discussion focusing on the value and partnership topics. These elements are conspicuous by their absence during the agreed execution period and are often brought to the table rather negatively when it is time to discuss contract extension. This highlights the provider's capability in highlight and communicate the value to the customer throughout the contract's execution.

> *"What we have been unfortunately quite bad at* [case company] *is reporting what value we bring to the customer outside just the performance-based stuff. And we are actually now discussing how we can communicate that to the customer." (Interviewee L)*

> *"A contract that we lost, the customer has actually had to call us about their mil liners because the current supplier doesn't know how to solve the issue. So, I think the customer is now like seeing all the value that* [case company] *brought in like all the small things we did for free in the contract." (Interviewee M)*

It was also expressed by the interviewees that often the final decision makers about the signing of the contract are so far away from the operations that not all of the value is directly visible to them and that they practically rely on the word-of-mouth of their

people physically at the site. Therefore, there should be an effort from the provider's side to communicate the achievements higher up in the customer's organization as well.

> *"We have the technical meetings – and what I have noticed is that when we discuss technical stuff, we don't mention money, and when we have commercial meetings, we don't talk about technical stuff. You keep those separate. But yeah, we don't probably communicate those things enough" (Interviewee M)*

Similarly, a critical activity when the contract is active is a deeper level review by both parties to ensure that the contract is achieving according to the set performance KPIs and delivering the desired outcomes. In addition, fairness of cost and other reimbursement elements are explored and adjusted according to the mechanism set in the contract.

> *"Generally, if we were going to do a large contract, it'd be reviewed every 12 months together as a team anyway, because there's always the chance that the contract isn't performing the way it should on either side. So, it could be on the customer side or it could be on our side and it's sort of something that we should have the right to review. And there should be the mechanism in there to adjust as needed to make sure that contract is fair and reasonable. I mean, it's normally with our contracts, there's rise and fall clauses in pricing. So, it is fair and reasonable for both parties and it is justified." (Interviewee D)*

4.6 Challenges

This chapter on challenges focuses on highlighting the different issues and problems both the interviewees expressed and the researcher observed during the case study. The challenges to be covered are related to both value-based selling and performance-based services, often touching both of the topics.

Starting off with challenges related performance-based services, it was expressed by the interviewees that there is a lot of discussion in the case company about performance-based services and offering performance outcomes to the customers. However, when it comes down to the business lines and product groups, there are in many cases

challenges in identifying and committing to specific KPIs that could be then utilized in contracts. Understanding what performance actually means at the product level, in their context, is necessary when expanding the performance-based business.

> *"The more they can be defined already in the technology or the product, the easier it is to move forward. We often talk a lot about performance, this or that. But then what is the performance really, and it may sound simple, but performance can still be millions of different things, so it's always good to have it built into the technology, what are the main points, and then you can add some others if you want." (Interviewee E)*

> *"The past couple of years, I think there was very good progress on how* [case company] *wants to develop it and became more and more concrete. Some technologies and some business lines have progressed and matured their LCS offering or performance based offering faster than others, and others are still like in early stages." (Interviewee A)*

Another challenge actually relates to the servitization journey that the company is undertaking, and specifically the digital side of it. The interviewees explained that currently there are fundamental issues and lack of visibility when it comes to connectivity and seeing what is happening in the customers' processes. It was highlighted that there is no proper visibility into basic production data and what has happened recently. Continuing and investing more into the digital servitization and related capabilities is critical as developing performance-based business cases becomes easier in the sense of identifying and recognizing opportunities as well as monitoring the progress when the contract is active.

> *"One extremely important and easy way would be to approach this topic by actually having the devices connected and getting some kind of data constantly. And when we talk about my technologies as well, just from the behavior of the device, stops, or operational cycles that we see through that data, we could much more quickly build those properly targeted improvement suggestions and move closer and closer to that performance mindset. And perhaps the point here is that we talk a lot about digitalization now, but the fact is, at the moment, we don't have visibility into the current behavior of the device or even over the last 3 months, how it has been operated and how it has malfunctioned. And if we had this information, we could much more quickly start building these cases." (Interviewee E)*

The transition into true performance enabler and outcome provider can also be sensed in the way interviewees described the performance-based offering and logic. It was observed that often performance was perceived through pricing or value capture rather than value creation and delivery, suggesting that the company is still influenced strongly by transactional perspective emphasized by value capture centricity rather than partnership and joint value creation. It was highlighted by some interviewees that performance-based does not have to mean KPI-based pricing or bonus/penalty clauses, but rather about what the case company is trying to achieve together with the customer and how these desired outcomes can be achieved regardless of the pricing model.

> *"To me, performance, this is not about how we charge it or how we price it. It's more about how we approach this. We are solving customers issue, which is 'I don't have to worry more about liners.' 'I know how much I'm going to spend in liners', you know, there's no concerns anymore. There's no doubt anymore. It's a known thing. So, in my in my view, this is also performance." (Interviewee N)*

Moving on to the value-based selling perspective, the pressing challenge that was expressed by many interviewees is related to the old-fashioned nature of the minerals processing industry which can be observed throughout the sales process. Firstly, this is notable in the way business is approached by the customers which is identifying needs and publishing an RFQ to the market, exploring transactional partners rather than value generating partnerships. In this regard, it is difficult for the case company to influence the solution design.

> *"When the customer places an RFQ into the market, they just want the products quickly" (Interviewee N)*

Secondly, when the provider is able to engage with the customer and suggest improvement ideas, according to the interviewees customers tend to be very proud about their capabilities and competencies, which is often holding them back in entrusting certain responsibilities in the hands of a provider. Similarly, a lot of these conversations are

taking place at the site level with the operative people where such suggestions can come across as questioning the customer's own abilities.

> *"If the influencers and decision makers are too proud of their capabilities, in a sense that they believe or hope that no one can do their jobs better than them, or are afraid of being exposed, it will be extremely hard to move forward with the performance-based. They need to be open minded enough to open their doors to a supplier and take the risk that the supplier might achieve better results – and this is no shame! Suppliers many times have more technology expertise, easier access to different solutions, add-ons and modernizations around the technology, faster decision making processes, and higher focus on the hired activity. Customers must be proud of saying 'I brought the right supplier and solution, and that's why we are performing better'. At the end of the day, it again comes down to the relationship: if you know your customer well, you'll know if they would be willing to try performance-based." (Interviewee N)*

Altogether, it can be noted based on the interviews that a lot of the sales discussions begin at the operative level, working in close proximity with maintenance and operations people. The challenge faced then is finding the right ears who also happen to have influence in the customer's organization as value messages conveyed internally by the customer can be misinterpreted by the customer's management. As was presented in previous chapters, the customer's might not be able to explain the performance logic and all the value involved in the solution, making it seem excessively expensive.

> *"So, this whole concept of value selling, or whatever it's termed, closely resembles consultative sales. It's about being able to demonstrate alongside the customer. And for that, there must be a deep level of trust, a confidential relationship with the customer, particularly because, often, when we delve into these discussions seriously, we should be conversing with commercial professionals and need to speak their language. It's less about discussing various technologies or product features and more about financial aspects." (Interviewee K)*

Great bulk of the challenges identified were related to the ways of working in the case company. The case company has excellent tools and practices in recognizing opportunities by for example conducting performance studies, but the outcome of these studies leaves room for improvement. It was mentioned by the interviewees that often the focus is in getting out as many proposals as possible, falling back on the transactional, product-

centric approach. According to the interviewees this could be due to short-term focus by the management. It was suggested that more time should be spent on putting together solutions combining the different proposals, focusing on the value that it brings to the customer.

> *"When it comes to improvement suggestions, they can be all sorts of things, such as modernization, better maintenance planning, parts availability, and everything else. So perhaps our practical problem has been a bit about how to turn those into recommendations, in such a way that it helps you to initiate the performance-based aspect of it. And at least I don't have a direct formula for how to do that right now. Maybe our company's DNA is a bit like just throwing out suggestions and proposals to buy this and that, but the more we start breaking things down into individual pieces, it kind of takes away from the overall offering. So maybe we should be even stricter with integrating those improvement suggestions into one price and one proposal and step by step, and something like that, so this is something we discuss almost every day: what approach to take?" (Interviewee E)*

> *"We have so much emphasis on product sales and if we look at the site account managers, they're under tremendous pressure all the time. Just the other day, I interviewed a good site account manager, and it was expressed that it's just that maybe the focus is on short-term orders right away today or at the latest next month. Versus then to develop more in the long run and seek that proposal basis and road map. So, he did say it's actually for management, the monthly forecast that matters the most." (Interviewee E)*

From this perspective, it was also mentioned that the complexity associated with performance-based solutions might scare away customers, but also internal salespeople. Customers might feel that they do not have the necessary competencies to sign and facilitate such a contract and related discussions, whereas internal salespeople dislike the idea of having to go through tens of people to get an approval for the solution. They might spend months on the solution and then receive a disapproval, making the incentives to explore performance-based solutions minimal.

> *"There's a desire to minimize risks, which often makes things quite complex. Consequently, it can be challenging for our sales team to pitch it, and equally difficult for buyers to make a purchase decision. There are just so many variables at play." (Interviewee C)*

> *"When you talk about performance, I will have to deal with 130 people within* [case company] *and get approval. That will take six months to go through, and the sale will take 6 to 12 months. And I don't know even if it's going to go through, so I cannot spend my time on that. So, this for me is a big issue as well. The complexity that is inherent, it's part of the performance-based sales process. It pushes sales-people away." (Interviewee N)*

Similarly, as in many cases the solution consists of products from multiple different business lines, the magnitude of people involved becomes a challenge to control and keep aligned. Additionally, every business line demands that their part of the solution is profitable, making it a challenging task for the sales.

> *"Multi-team solution composition: most of the times, a performance-based sale will involve different departments/teams, which can make the whole process more difficult. Each department might have its own agenda and priorities, making the solution development more challenging." (Interviewee N)*

When it comes to different sales teams, it was expressed that the CAPEX and OPEX colleagues are too siloed and are not working together enough. Ideally, the teams should work together as it can bring in a lot of value not only to the customer but also to the case company. CAPEX often promises certain production elements related to the equipment, which could be enabled and understood better by OPEX if there were more collaboration.

> *"I think a challenge in a big company like* [case company] *when you talk about value selling, you must start to think about the bigger picture. You can't continue to think about one part of the organization delivering field personnel, another one delivering parts, another one delivering maintenance and I think as an organization this becomes a bit difficult because today the company works on just separate you know transactions here and there and everyone you know charge their money, receive their money, happy days. But when you talk about those bigger ones, sometimes this department needs to work with that department to achieve the end goal." (Interviewee A)*

In terms of value proposition communication, value quantification emerges as a critical activity. As mentioned, the usage of the available value calculators is still gaining momentum and becoming a standard practice. However, it was explained that the case

company is still very much dependent on the input of the customer, making quantification relatively difficult in some cases. For this reason, it was explained by the interviewees that more capabilities should be developed in the modelling front and developing models that mimic the customer's production process. Similarly, it was expressed that in order to develop the most resonating value propositions, customers' openness and willingness to be transparent and share their true issues might be challenging.

> *"And it's because, according to their extensive experience, well, it's somewhat culturally bound, but apparently, there are certain market areas where their mining clients will never disclose any numbers about their production processes. This, of course, makes it incredibly difficult for us to model, calculate, and determine the added value, and to tailor the solution in terms of that added value." (Interviewee K)*

> *"I would say that biggest challenge is to convince the customers of taking the time and being transparent to really dive into their problems, open their targets, and also their current baseline, including, in the best case scenario, their costs." (Interviewee N)*

Regardless of the sales process phase, a challenge that is faced throughout the process is related culture. According to the interviewees this is particularly present in the value proposition development and communication phase. Upon presentation of value quantifications such as increased production and revenue, some customers from certain cultures will take very defensive positions and react in a rather allergic fashion to value sharing topics. Similarly, the initial perception of performance-based is quite negative in some business cultures.

> *"There's a cultural aspect to these things. Many colleagues have told me that when I started talking about these things, they said that maybe they work somewhere in northern regions, but in South America, it will be difficult based on their experience. We have different business cultures and how we handle confidential information and such." (Interviewee K)*

> *"In the cultural aspect, the reception of quantification varies. In many places, if you start quantifying it based on customer gains or earnings, there can be some resistance from the customer. They might feel like this contract model is about sharing their profits. However, in places like North America, it could be a functional approach. For example, if you join us, you can save this and this amount in the*

> *coming years, and we take a share from that. It could be very clear to them. But then again, in places like the Nordics and Asia, it often feels like we're taking something out of the customer's wallet." (Interviewee C)*

Lastly, the challenge faced during active contracts is the communication of value brought to the customer. The case company is very conscientious in communicating challenges and setbacks, but according to the interviewees could improve in communicating when things are going well.

> *"It's probably an improvement area internally for us to communicate our achievements as soon as they're reached, and also consistently—not necessarily every month, but at least quarterly." (Interviewee C)*

4.7 Summary of the findings and revised framework

Value-based selling and its significance as a sales approach is becoming increasingly critical for organizations as competition and commoditization of their offerings increases. In order for the service providers to differentiate themselves further and succeed in high value solutions such as lifecycle services, provider's capabilities to communicate, quantify, and verify the value to the customer during the sales process becomes quintessential. Failure in one of the three aspects can result in customer perceiving the solution as excessively expensive and seek for cheaper alternatives as the total value is not perceived. The objective of this case study was to gain an understanding about how value is being sold in performance-based lifecycle services with three supporting questions related to the activities undertaken, enabling capabilities, and challenges faced. Firstly, it was established based on existing theory that organizations usually have pre-defined strategic level sales process descriptions providing strategic guidance regarding the necessary steps and objectives. For the case company this assumption holds true and a strategic level, unique sales process was established, combining elements from sales and contract execution.

Secondly, through semi-structured interviews, undertaken activities, enabling capabilities, and faced challenges were explored utilizing the theory based framework, taking inspiration from Töytäri (2018) regarding the activities and Terho (2012), Töytäri and Rajala (2015), and Raja et al. (2020) regarding the capabilities. Theory generated by the aforementioned academics enabled the designing of relevant interview questions.

It was found that during the pre-negotiations stage, the case company engages in two distinctive activities which are identification of potential customers and recognition of opportunities. During the phase labeled as negotiations, the case company engages in four activity groups. Firstly, the offering scope is established in which accumulated knowledge about the customer's pain points and ambitions as well as provider's know-how is turned into a feasible solution. Secondly, the performance logic is opened to the customer. This involves explaining how value is being created, captured and delivered in the context of performance-based lifecycle services. Thirdly, value propositions are developed and communicated leveraging on the profound capabilities associated with value-based selling such as in-depth knowledge of the customer, relationship with them, value quantification, focus resonation and strong referencing of past success cases. Lasty, at this phase is the influencing of stakeholders. It was explained by the interviewees that there are essentially two different approaches which are top to bottom and bottom to top. Additionally, when it comes to influencing, it was highlighted that understanding that value takes different shapes at each level is critical and that even the strategic levels requires knowledge about operational topics. In the last phase, labeled *after signing a contract*, one activity group was identified i.e., validating performance which entails the confirmation of the value in customer's and provider's value co-creation situations.

Along with the identified activity groups enabled capabilities were recognized and categorized according to three C's: comprehension, crafting, and communication. Similarly, throughout the process different challenges were identified which can be divided into those related to value-based selling or performance-based services. The identified challenges can roughly be categorized intro four clusters: degree of digital servitization,

internal model and practices, perceptions, and industry specific challenges. These afore-mentioned aspects were incorporated with the theoretical model, presented in **figure 21.**

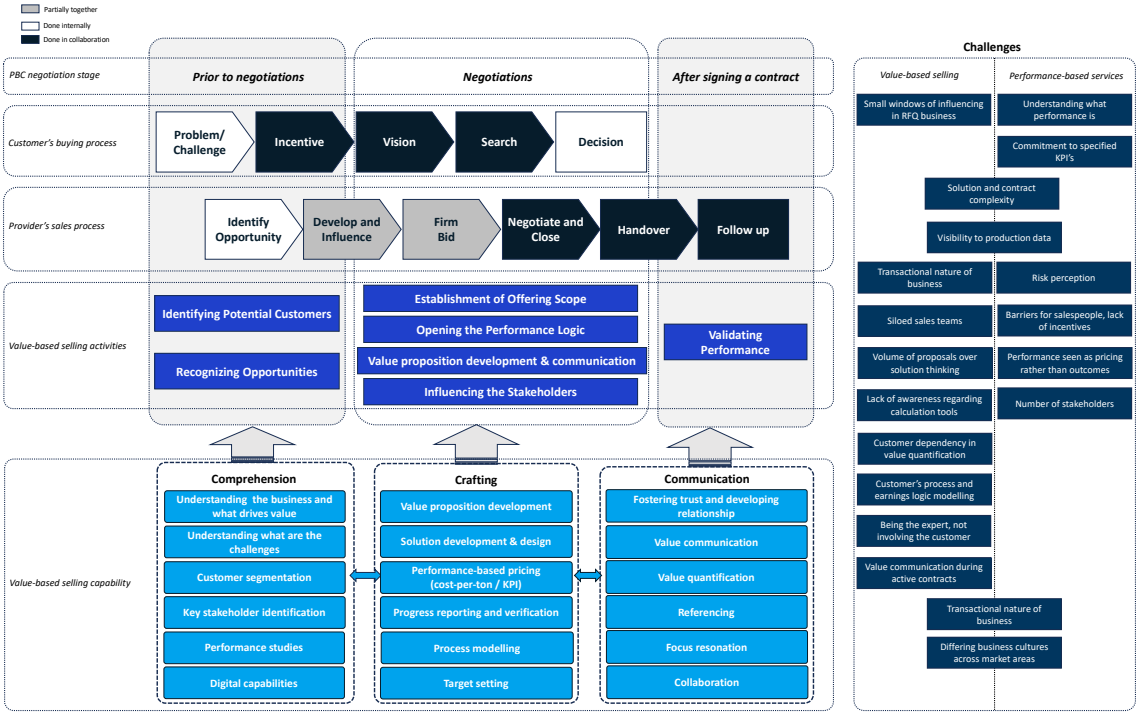

Figure 21. Revised framework.

5 Conclusions

The purpose of this thesis was to gain an understanding about how value is being sold in the context of performance-based services by exploring the activities undertaken, the enabling capabilities and the challenges faced. This thesis embarked on that journey by first discovering servitization and the evolution of service offerings. Baines et al. (2013) explain that servitization is a journey and that different service offerings can be categorized into three groups which are base, intermediate, and advanced. Further a company moves on its servitization trajectory, the more they focus on providing tangible business impacts. Following the introduction to servitization, the different research communities were explored as identified by Rabetino et al. (2018). Their research presents three different communities which are product-service system community, service science community and solution business community. The work of this thesis is located in the solution business community and specifically in the customer solutions cluster as it contributes and elaborates on existing theory regarding sales processes and associated activities, capabilities, and challenges.

After the high level exploration, more detailed and critical elements of servitization were discussed. Firstly, the pressing challenges were explored. The current literature highlights capabilities as one of the biggest challenge as delivering and executing these require new types of capabilities rarely present in product-driven companies. Additionally, designing and creating solutions and offerings was identified as a challenge. Lastly from a challenges point of view, a phenomenon called service paradox was discussed. The paradox refers to the assumption that additional investments in servitization will result in improved financial performance. This is, however, not accurate as initially it is quite easy to improve results with the beneficiation of “low hanging fruits”, but as an organization reaches the more advanced stages, delivering the services and succeeding in them requires many capabilities challenging to find and cultivate, thus resulting in suboptimal financial performance (Baines et al., 2009; Brax, 2005; Gebauer et al., 2005; Lyu et al., 2023; Oliva & Kallenberg, 2003; Slack, 2005; Vandermerwe & Rada, 1988; Wise & Baumgartner, 1999).

Secondly, the different drivers for servitization were discussed. It was established that there are three categories of drivers: financial, strategic, and marketing (Baines et al., 2009; Gebauer & Fleisch, 2007; Gebauer & Friedli, 2005; Oliva & Kallenberg, 2003; Wise & Baumgartner, 1999). Financial drivers refer to the notion that with the introduction of services, companies are able to increase profits and stabilize their cash flow as services are less volatile – demand for them is less seasonal and economically sensitive. From the strategic perspective, services enable competitive advantages and further opportunities for differentiation in industries characterized by increased competition and commoditization of offerings. Lastly, marketing was identified which is concerned with customers selecting their core competencies and outsourcing the rest to suppliers. In this regard, suppliers can gain valuable insights, enabling them to offer further personalized solutions. Lastly, digital servitization was explored which according to Kohtamäki et al. (2022) implies the infusion of services with digital technologies such as sensors, IoT, big data, AI, and cloud computing, enabling the service business to reach new levels.

Moving from the “macro” to “micro” in terms of the context for the thesis, performance-based services and contracts were discussed next. It was first established that there is some ambiguity among researchers regarding the right phraseology when it comes to these types of solutions. According to Korkeamäki et al. (2022) the commonality among all the terms used is the effort and transition towards results/performance/outcomes. After terminology, a model of PBC was presented as per Selviaridis and Wynstra (2015). This model demonstrates three essential dimensions which are performance, incentives, and risk. Performance refers to specifying what it is and evaluating it, while incentives are concerned with the payment scheme and the impact of the incentives, whereas risk relates to the attitudes possessed and the associated transfer of it from customer to provider.

Next the changes in the business model when adopting performance-based services were discussed. Ng et al. (2013) in their study identified three. Firstly, alignment of incentives was highlighted underlying the fact that in performance-based context, the

supplier is incentivized to do their best and improve in order to attain better rents from the market, simultaneously benefitting the customer. Secondly, the transfer of risk where supplier becomes responsible for attaining the agreed outcomes and it is their responsibility to leverage and combine capabilities and resources to create and deliver the value. Lastly, it was noted that performance-based services automatically develop competitive advantages as delivering them is challenging and lessons learnt can be leveraged with additional customers to collect further rents from the market.

After the servitization and performance-based discussion, it was time to explore value-based selling, the phenomenon of the thesis. The exploration of the second literature stream began with the establishment of the term. The term i.e., a sales approach indicates a transition from selling products or services to salient customer needs or selling of solutions to customer' challenges to selling business impacts that result in profits for the customer. It was found that this approach calls for a change in the business logic moving from short-term value capture to long-term value co-creation (Töytäri et al., 2011)

To discuss the selling of value, it was critical to gain an understanding about customer value. In this regard, it became apparent that time acts as a critical factor. Woodruff (1997) explains that time and customer value is concerned with the timing during which customer assesses the value. Prior or during purchase it takes the shape of desired value, whereas post-purchase during the in-use stage, it becomes received value. Terho et al. (2012) further explain that value can be experienced from three different perspectives. Firstly, the seller perspective related to what is of value to the firm was explored. Secondly, mutual perspective i.e., dyadic value and lastly customer perspective or value to the customer were discussed.

After customer value, the capabilities related to value-based selling were discussed. In this section the papers of Töytäri and Rajala (2015) and Raja et al. (2020) were utilized. Their findings showcased capabilities put in different words but depicting similar phenomena. To create cohesion, the paper and categorization of Terho et al. (2012) was

utilized forming three capability cohorts: comprehension, crafting, and communication. After capabilities, the thesis adopts the process perspective. First it was established that the customer has a buying process that is by nature goal-driven where each organizational level faces challenges that are then delegated as a goal for their subordinates and this logic repeats itself throughout the organization (Töytäri, 2018). Secondly, the value-based selling process of a provider was explored. The process was characterized as explorative by nature while emphasizing the role of value quantification and customer validation throughout the process, aiming at value creation for both parties (Töytäri et al., 2011).

The empirical research found that in the context of performance-based lifecycle services for the aggregates and minerals processing industries, the value-based sales process consists of seven activity groups spread across three stages related to negotiations process of a PBC. Prior to negotiations two activity groups were identified: identification of potential customers and opportunity recognition. During negotiations four activity groups were identified: establishment of the offering scope, opening of the performance logic, value proposition development and communication, and influencing of stakeholders. Lastly, post-negotiations one activity group was identified which is validating performance.

Throughout the process different enabling capabilities were recognized which can be categorized according to the three aforementioned C's, originally coined by Terho et al. (2012). Similarly, the empirical findings demonstrated challenges related to both the studied phenomenon i.e., value-based sales and context i.e., performance-based services. The identified challenges can roughly be categorized into four groups: degree of digital servitization, internal model and practices, perceptions, and industry specific challenges.

5.1 Theoretical implications

As motivated and demonstrated in the identified research gap, the need to explore value-based selling from many different perspectives is a pressing and topical need due to significant increases in high value service offerings in need of sales approaches that help to differentiate them from their competition (Liinamaa et al., 2016; Raja et al., 2020; Töytäri et al., 2011; Töytäri & Rajala, 2015). Additionally, as servitization has progressed since its emergence in the 1980s from providers focusing on spare part provisions and efforts to gain more equipment sales into advanced services leveraging on digital elements such as sensors and machine learning while driving for business models that constitute significant changes and focus on guaranteeing outcomes (Baines et al., 2013; Kohtamäki et al., 2022; Korkeamäki & Kohtamäki, 2020), this study provides meaningful insights into the intersection of these two concepts.

As mentioned, this thesis set out to gain an understanding about how to sell value in performance-based lifecycle services by answering the three supporting questions related to undertaken activities, enabling capabilities, and challenges faced. As an abductive case study, the findings presented across chapter four elaborate on the existing theory regarding value-based selling by applying it in the context of performance-based services (Ketokivi & Choi, 2014; Saunders et al., 2007). The research conducted by this thesis contributes to the intersection of the two concepts by elaborating on the value-based selling activities (Töytäri et al., 2011; Töytäri and Rajala, 2015) and by expanding the understanding regarding required capabilities and challenges faced (Hypko et al., 2010; Liinamaa et al., 2016; Raja et al., 2020; Töytäri & Rajala, 2015).

First, the study provides additional elements to the rich list of different activities and practices undertaken by the provider during the sales process. Supporting the findings of Töytäri et al. (2011) by implementing ideology from their model of value-based selling activities, this thesis finds that indeed value-based sales require extensive knowledge regarding the customer's business. However, the findings challenge the view of Töytäri et al. (2011) that the process of gaining understanding takes place away from the

customer. The findings suggest that in order to gain in-depth understanding about the customer's hidden needs and ambitions as well as root causes for challenges, the process ideally includes time spent together with the customer especially at the grassroots level with the process and maintenance technicians. However, the research identifies that this could be related to the process nature of the business i.e., minerals processing. Furthermore, the study shares the findings of Töytäri et al. (2011), Töytäri and Rajala (2015), and Raja et al. (2020) about the importance of value quantification and verification. It further elaborates that in the context of performance-based services, a critical activity is the opening of the performance logic, indicating the need to explain the changes to the business model that is how value is being created, captured and delivered supporting the findings of Kohtamäki et al. (2022) and Sjödin et al. (2020) that shift towards guaranteeing outcomes causes changes in the business model. Additionally, it elaborates on the study of Töytäri (2018) about the role of influencing during the sales process. It shows that influencing is a key activity and that there are essentially two approaches for it which are planting the seed at the operations level or acquiring management support from the customer's upper management. Out of the two approaches the top-down approach was deemed more effective.

Secondly, the study discovers many different capabilities applicable to both value-based selling and value-based selling in the context of performance-based services. The findings support the model of Terho et al. (2012) and is able to divide the identified capabilities according to their model. The conducted research supports the findings of Raja et al. (2020) and Töytäri and Rajala (2015) and highlights the importance of capabilities related to identifying customers and key stakeholders, developing the value proposition and communicating it as well as quantifying and verifying the value. The findings elaborate that in the context of performance-based services digital capabilities are integral as there is a lot of data and processing and analyzing of information. The study challenges the studies of Raja et al. (2020) and Töytäri and Rajala (2015) for their lack of findings related capabilities of collaboration both internal and external. Indeed, the study extends the view of existing theory and elaborates that collaborative capabilities are

required. Internally, providers must be able to collaborate across sales teams to reach the customer and influence them at a point most fruitful for the solution. On the other hand, externally providers must collaborate with customer's representatives to gain in-depth understanding about their needs, problems, and ambitions, to identify and suggest opportunities more effectively and to showcase real signs of partnership and value co-creation. Additionally, the findings support Raja et al. (2020) and Töytäri and Rajala (2015) about the importance of communication. The approach to communicating with customers has to be of respect and humility, as the customers do not want to "lose face" about their competencies to run their process and do not want to be lectured by the provider. The findings also challenge the studies of Töytäri (2018), Raja et al. (2020), and Töytäri and Rajala (2015) about the relationship development aspect. The findings suggest that among existing customers, developing and nurturing the relationship is important and therefore a key capability, however, even more important is the evidence of value creation. Customers are more willing to engage and develop relationships with those who have successfully created and delivered value to them. Sustained delivery and creation of value to the customer enables partnerships and facilitates trust, a critical component in value-based sales, especially in performance-based services.

Thirdly, the study presents implications to the challenges literature stream (Liinamaa et al., 2016; Hypko et al., 2010). The conducted research supports the findings of Liinamaa et al. (2016) and Töytäri et al. (2015) regarding the challenges when it comes to adopting performance-based pricing, a built-in component of performance-based services. Additionally, the perspective regarding mismatch in capabilities is identified. A key activity and capability in the value-based sales process is the quantification of the value. It was identified that the quantification process can be quite challenging as the provider lacks modelling capabilities and is very depended on the inputs provided by the customer. Therefore, this study also contributes towards the calls of Raja et al. (2020) regarding the role of customer in the process. Additionally, the findings suggest that many of the challenges are related to internal models and practices. Salespeople are not properly incentivized to pursue performance-based solutions and the organization is more prone

towards quantity of proposals over quality of synthesized propositions. This supports the perspective of Ng et al. (2013) and Selviaridis and Wynstra (2015) about the associated complexity in performance-based services and contracts.

5.2 Managerial implications

The findings of this thesis also pose many implications for the managers. First and foremost, the findings showcase that advanced service providers need to continue investing in digital servitization and digital capabilities as they enable more effective identification of opportunities and addressing of invisible customer needs. Furthermore, digital elements such as sensors and connectivity provide an access to effective and accurate monitoring of achieved performance levels, liberating resources from the manual entering of data and mitigating the effect of human error.

Likewise, the findings pose a question regarding the role of digital service elements and capabilities in service business. Managers should establish in their business and industry whether digital elements and capabilities should be included in the offerings as directly revenue generating aspects or as add-ons for free, contributing to the revenue generation indirectly in the role of a business enabler. Based on the findings of this thesis in the performance-based context, digital elements as direct contributors are seen as more difficult to sell as they become one more element in the offering to justify, posing a risk of the process becoming too pricing focused. In fact, when offered for free, they play a pivotal role in potential value creation for both the customer and the provider.

The findings also suggest that performance-based services are very complex to sell not only from the customer perspective but also from the internal perspective. Salespeople are easily encouraged to focus on short-term rather than explore performance-based solutions due to the associated complexity and number of approvals required to bring the proposition forward. Similarly, when it comes to internal collaboration between sales teams, the findings highlight the need to incentivize CAPEX teams or facilitate OPEX teams with opportunities to join in on the calls and meetings between the customers

and CAPEX colleagues to gain better understanding regarding their needs and requirements. Additionally, this poses an excellent opportunity for influencing regarding the aftermarket needs as customers do not have salient needs and predetermined solutions for said needs. The aspect of influencing was identified as one of the activity groups during the sales process and presented that adapting a top to bottom approach is more effective when it comes performance-based services.

Lastly, the findings highlight the role of perceptions and need to adapt different perspectives regarding both value-based selling and performance-based services. From the value-based sales perspective salespeople need to be educated that value-based selling is not just about identifying what is of value to the customer and discussing it together with the customer. Value-based sales is a distinctive sales approach designated to selling quantifiable business impacts resulting in profits for the customer and characterized by value quantification, seeking of validation from the customer and affirming the delivered value. This means developing and cultivating the capabilities highlighted in the findings section most of which are rarely possessed by product-focused companies.

Similarly, performance in the context of services should not only be perceived through value capture and pricing. As highlighted in the findings, selling of high value solutions such as PBS requires focusing on the means of achieving the outcomes that is how the value is created and delivered. Discussing pricing or disclosing price lists early on in the sales process prior to establishing solution i.e., the means of attaining the results will result in the value sharing reference moving from customer value to supplier cost, focusing on short-term rather than the value created jointly over a long-term period.

5.3 Limitations

Although the case study conducted took many steps to improve the study's validity and reliability such as ensuring a broad interviewee base, representing five continents, and consisting of both case company's employees and customers' representatives, it does

not come without its limitations. First of all, the conducted case study takes place at a single case company offering products and services to the aggregates and minerals processing industries. This means that generalizing the findings to cover a broader scope of companies and industries may not be possible, thus posing the question of limited generalizability.

Secondly, as the conducted study is interpretive by its research philosophy, this indicates that the studied phenomenon and the resulting findings are the researcher's interpretations about the data captured from the interviewees. Similarly, the element of interpretation plays a significant role in the data capture itself as the answers provided by the interviewees are their observations regarding the phenomenon. Therefore, this poses the question regarding repeatability as the perceptions of the interviewee's might have changed and developed since the data was captured. This indicates that the used methodological choices i.e., semi-structured interviews is somewhat tight to its time and context.

5.4 Suggestions for future research

As this thesis set out to explore how value is sold in the context of performance-based lifecycle services, it sheds light on the undertaken activities, enabling capabilities, and challenges faced. However, as companies continue to invest in their servitization journeys, creating evermore advanced service solutions while trying to escape the commoditization trap with emphasis on customer value and differentiation, new research avenues will emerge. As mentioned, with the introduction of high value solutions, new sales approaches have been established. In terms of value-based selling, there is still a lot to explore.

Starting with the limitations possessed by this study. Further studies should be conducted regarding the value-based sales activities undertaken by different companies within and outside the covered industry. Secondly, this single case study incorporates holistic perspective into the value-based selling process by conducting interviews on both sides of the phenomenon, thus contributing towards the research calls of Raja et

al. (2020) regarding customer's role in value-based sales. However, due to the limited number of customer representatives available, future studies should test the framework of this work by applying it in a case consisting of more customer side representatives. Additionally, to further contribute to the research calls of Raja et al. (2020), future reach could also solely focus on the customer side, presenting the findings from the viewpoint of a customer.

A critical element and capability in the value-based selling approach is the quantification of value. In this regard many interesting avenues for research emerge. The findings of this study indicate that the providers are quite dependent on the inputs provided by the customer. Therefore, this thesis suggests that future research should be focused on depicting the methods providers use to solve this issue by for example developing and acquiring modelling capabilities to simulate customer's process or use situations to acquire accurate knowledge regarding the solutions impact on the customer's top and bottom line.

Lastly, this thesis discusses performance-based services and is able to establish that customers like the idea of them as they seek for suppliers who are willing to put their money where their mouth is. However, prior literature highlights that customers are quite hesitant to enter these types of agreements due to wide variety of reasons. Future research could also focus on adding more to the model of Selviaridis and Wynstra (2015) and how the different elements actually impact customer's decision making when adopting a performance-based service.

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Appendices

Appendix 1. Interview questions for case company representatives

Background

1. Could you tell me a little bit about yourself? role, history etc.
2. What quantifies as a performance-based lifecycle service, and could you describe the performance-based lifecycle services you offer?
3. Is there demand for performance-based lifecycle services? Why?
4. What do you think of value-based selling? What are the benefits?

Performance-based services

1. What is of value to the customer in performance-based lifecycle services and what specific value or benefits is the customer expecting to see in use situations?
2. What factors are crucial to the customer from purchasing/contract signing perspective?
3. How does the customer feel about pricing being based on performance or mix of fix and performance?
4. How do performance-based lifecycle services deliver superior customer value in comparison to other market alternatives?
5. What unique challenges do you face when selling performance-based lifecycle services?

Value-based selling activities

1. Could you describe the sales process from identification to delivery such as steps and activities?
2. What different value selling related difficulties do you face in the process?
3. What different activities do you undertake to:
    a) identify and contact influential stakeholders in regard to customer's decision making?
    b) develop these key stakeholder relationships?

4. What different value activities do you undertake to influence the customer's buying process? E.g. activities that develop, adapt, communicate and quantify value.
5. What different activities do you undertake to align and control joint progress?

Value-based selling capabilities

Comprehension:

1. How do you identify potential customers? What makes an ideal customer for performance-based lifecycle services?
2. What commonalities do you see in these identified customers?
3. In your opinion, what are the most common/ideal value drivers for performance-based customers? How do you identify these?
4. What have been the business cases for selling performance-based lifecycle services?

Crafting:

1. Do you conduct value quantification? If yes, how?
2. What is the role of the customer in the quantification process?
3. How do you align with the customer's expectations and requirements when you develop the value proposition?
4. What challenges do you face in developing value proposition?

Communication

1. How do you communicate the potential value to the customer?
2. In your value propositions communication, where do you focus?
3. How do you take into consideration the differences in value perception of different key stakeholders?
4. Do you verify the value co-created? If yes, how?
5. How do you establish trust and credibility in the eyes of the customer?

Appendix 2. Interview questions for the customer

Background

1. Could you tell me a little bit about yourself? role, history in the company etc.
2. Do you value your relationship with [case company] and what sets [case company] apart from its competitors? Why?
3. In general, your thoughts on the willingness to partner with suppliers.

Performance-based services / performance-based contracts in lifecycle solutions

1. How does your company see lifecycle services in the performance-based context where pricing is at least partially based on the delivered outcomes?
2. Is there demand for these types of solutions?
3. In your opinion, what are the benefits and risks associated with these types of services/contracts.
4. What value are you looking for when purchasing performance-based lifecycle services? e.g. value drivers, desired benefits, and critical factors.
5. Is the industry from your perspective moving towards value co-creation characterized by increased supplier responsibility and partnership over transactional relationships? Why?
6. What have been the main reasons for your company to sign a performance-based contract (pricing at least partially based on availability, cost-per-ton, any performance KPI) or what has prevented your company from signing one?

Value-based selling in the context of performance-based lifecycle services

1. Could you describe the buying process and negotiations? steps/stages, activities, and participants.
2. Who was the decision maker and who were the influential stakeholders?
3. How successful was [case company] in communicating and demonstrating the benefits and value of the solution?
4. In their value propositions, did [case company] manage to highlight the relevant benefits in you case? What were those?

5. How was the alignment and control of the joint progress achieved with [case company]? e.g. ensuring alignment in vision development and problem resolution during the negotiations.
6. How did [case company] quantify value? What was your company's role in the quantification process?
7. What tools/methods did [case company] use to quantify the value?
8. Did [case company] use references in the selling process? Where those references relevant and applicable to your situation?
9. Upon contract being active, how is the progress followed and communicated?
10. How could [case company] improve in selling high value solutions such as performance-based lifecycle services?