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HYBRID PRICING IN ENTERPRISE SOFTWARE-AS-A-SERVICE COMPANY

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ABSTRACT

Ville Saukko: Hybrid pricing in enterprise software-as-a-service company
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Pricing is a fundamental activity that involves multiple functions of a company. Even though it's performed by all businesses, the pricing decisions aren't necessarily straightforward. This thesis aims to portray a unique pricing case from the business-to-business software-as-a-service domain. The literature lacks real-life examples from both fields. The case company uses a relatively unique hybrid pricing approach entailing a reoccurring license fee and a one-time implementation charge. The pricing case is for a new service and a new customer, which means that the case is also novel for the case company.

The holistic single case study was conducted by interviewing the project personnel from the case company. Documentation from the pricing process was gathered as a secondary source to verify and add to the interview data. Before the empirical part of the study, a literature review was conducted to get a comprehensive view of the topic before interviews and, more importantly, to compare the results to the current theory. The review gathers some well-known basic pricing frameworks and then continues to disclose pricing aspects and models from the domains of the case.

The results are presented in three themes: pricing process, parameters, and hybrid pricing. The pricing process followed well the models introduced in the reviewed literature. The case shows that large and strategic clients might have the leverage to influence or dictate the pricing process and used methods. Many of the pricing parameters introduced in the literature were used in the case and vice versa. In addition, a major challenge recognised in theory and experienced in practice was the difficulty of finding information to support the decision making. The strategic value of the project is one of the most prominent parameters affecting the case pricing that wasn't introduced in the literature. Also, hybrid pricing is overlooked in the reviewed pricing literature. The case study presents one approach. The case company started by separately maximising the pricing of the licensing- and implementation charge and then balancing the two based on client sensitivities and company strategy.

Keywords: pricing, hybrid pricing, SaaS, software, B2B, international pricing

TIIVISTELMÄ

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Hinnoittelu on perustavanlaatuista toimintaa, jossa on mukana useita yrityksen toimintoja. Vaikka se on tuttua kaikille yrityksille, hinnoittelupäätökset eivät välttämättä ole yksinkertaisia. Tämän diplomityön tavoite on kuvata ainutlaatuinen tapaustutkimus hinnoittelusta yritysohjemistopalvelujen toimialueelta. Kirjallisuudesta puuttuu tosielämän esimerkkejä niin yritysten välisiltä markkinoilta kuin ohjelmistopalveluliiketoiminnasta. Tapausyritys käyttää verrattain ainutlaatuista hybridihinnoittelumallia, johon sisältyy toistuva lisenssimaksu ja kertaluontoinen käyttöönottomaksu. Hinnoittelutapaus koskee uutta palvelua ja uutta asiakasta. Tapaus on siis uusi myös yritykselle.

Holistinen yksittäistapaustutkimus tehtiin haastattelemalla projektihenkilöstöä tapausyrityksessä. Hinnoitteluprosessin dokumentaatiota kerättiin toissijaiseksi lähteeksi tukemaan ja verifioimaan haastattelutuloksia. Ennen tutkimuksen empiiristä osaa, tehtiin kirjallisuuskatsaus, jonka avulla saatiin kattava käsitys aiheesta sekä vielä olennaisemmin, jotta tuloksia voitaisiin verrata uusimpaan teoriaan. Katsauksessa kootaan tunnetut yleiset hinnoittelumallit ja jatketaan sen jälkeen tapausspesifien mallien esittelyyn.

Tulokset esitellään kolmen teeman avulla: hinnoitteluprosessi ja -parametrit sekä hybridihinnoittelu. Hinnoitteluprosessi noudatti hyvin tutkitussa kirjallisuudessa esiteltyjä malleja. Tapaus osoittaa, että suurilla ja strategisilla asiakkailla saattaa olla vaikutusvaltaa sanella käytetty hinnoitteluprosessi ja menetelmät. Tapauksessa käytettiin useita kirjallisuudessa esitellyistä hinnoitteluparametreista. Lisäksi teoriassa sekä käytännössä nähty suuri haaste oli päätöksentekoa tukevan tiedon löytämisen vaikeus. Projektin strateginen arvo on yksi suurimmista käytännössä käytetyistä parametreista, jota ei kuitenkaan mainittu kirjallisuudessa. Myös hybridihinnoittelu on aiheena jätetty huomiotta hinnoittelukirjallisuudessa. Tapaustutkimus esittää yhden lähestymistavan. Aluksi tapausyritys maksimoi hinnoittelumallissa käytetyt lisenssi- ja käyttöönottomaksut erikseen ja sitten tasapainotti nämä asiakasherkkyyden ja yrityksen strategian perusteella.

Avainsanat: hinnoittelu, hybridihinnoittelu, SaaS, ohjelmisto, B2B, kansainvälisyys

PREFACE

This thesis project has been a great learning process for me. I would like to show my respect towards the case company and my brilliant colleagues there. Special thanks to the interviewees. Your expertise is the core of this thesis.

The supervisor of this thesis, professor Teemu Laine, deserves a huge thank you for the precious suggestions and generous guidance during the process. A special mention and a thank you to university lecturer Jouni Lyly-Yrjänäinen for being the second examiner of the thesis.

Finally, I would like to express my gratitude to my family and friends, who have given me energy and support throughout the process. Thank you, Inna, especially for motivating me forward. I couldn't have done it without you.

Tampere, 08.06.2022

Ville Saukko

CONTENTS

LIST OF SYMBOLS AND ABBREVIATIONS

B2B	Business-to-business
B2C	Business-to-consumer
CEO	Chief executive officer
COO	Chief operating officer
CR	Change request
CRM	Customer relationship management
FP	Fixed price
MOTS	Modifiable off-the-shelf
POC	Proof of concept
RFP	Request for proposal
SaaS	Software-as-a-service
T&M	Time-and-material pricing
TCV	Total contract value

1. INTRODUCTION

Pricing can be defined as the process of determining the monetary compensation and related conditions of the products and services in the company's offering (Saltan & Smolander 2021). It is one of the more basic yet crucial decisions a company faces (Morris 1987, p. 79). However, making these decisions isn't straightforward. The decisions are subjective to several different factors relating to the company's internal, environmental, and external market in which it operates (Shipley & Jobber 2001). A representative example of the importance of pricing is as follows: at an S&P 1500 company, a 1% price increase typically yields an 8% increase in profit (Baker et al. 2010, pp. 3–6). In addition to the financial aspect, a sharp pricing strategy, when properly applied, can change customers' behaviour and can establish a new position for the offering in the competitive market (Piercy et al. 2010). A good pricing strategy should result in a win-win situation, where customers recognise the value of the product or service reflected in their business processes (Baur et al. 2015). Still, in many companies, pricing is overlooked. Prices set in some companies are far from optimised, but they also often aren't organised either. As a result, profit, revenue, and customers are lost. (Liozu 2015)

Software-as-a-service (SaaS) is the go-to business model for modern software business. It's the number one cloud-based market segment by far when at the same time, the cloud market, in general, is growing and eating the business from on-premises and other types of software business models (Costello & Rimol 2020). SaaS is one of the decade's megatrends, constantly out-growing others year by year. However, there are still segments in the enterprise software scene that SaaS hasn't penetrated. (Synergy Research Group 2020). Pricing of SaaS has been studied since the early 2000s, but the academic literature hasn't grown with the same speed as publications of practitioners and the business itself. The reasons for this are unknown, but this indicates a clear gap between academia and practice. (Saltan & Smolander 2021)

Kienzler & Kowalkowski (2017) conclude their extensive review of the pricing strategy research by pointing out the need for research focus on business-to-business (B2B) pricing. They noticed an increase in service pricing literature and identified that the trend still needs to continue. They also highlighted the need for research in specific contexts, e.g., global business and with qualitative approaches. Saltan & Smolander (2021) carried

out a similar literature review of the state of SaaS pricing research. Similarly, they saw that there is further research needed in the space. Including, but not limited to, conducting studies of different SaaS pricing practices of companies in other contexts, researching different pricing methods used in practice and conducting studies to assess the various factors affecting SaaS pricing.

1.1 Objectives of the research

The main goal of this research is to enlighten academia with an intriguing pricing case from the field. The research is conducted as a case study for a Finnish fintech firm. The case setting is a new service developed for a customer, simultaneously productised for future clients. The service is a software solution to simulate payment infrastructure. It's priced with a hybrid approach, combining one-time setup and recurring SaaS pricing. This unique situation makes the service pricing difficult and, therefore, intriguing. It also addresses the research gap in practical research of B2B and SaaS pricing. The research questions are the following:

- How is hybrid pricing performed by a B2B SaaS practitioner?
    - What parameters are considered in the pricing?
    - How to balance the upfront project price and the reoccurring price?

The results can be used in future research, such as comparing SaaS practitioners', B2B software providers', or fintech companies' pricing strategies. Also, the results could be helpful for the mentioned groups where similar pricing approaches are either used or planned. In addition to the contribution to literature, this thesis aims to help the case company develop their pricing process. By defining, analysing, and comparing the procedure to existing literature, the case company would potentially find ways to improve its overall pricing process and the pricing of the specific product in the future.

1.2 Case company

The case company is a B2B oriented, mainly SaaS company operating in the financial industry. The current services of the case company are primarily used in customer onboarding by banks. The primary functions can validate, generate, and simulate different payment messages. Payment messages are technical files containing information about payments and transactions. They are used to transfer information about payments through the whole payment process and a network of financial

institutions. Typical customers are central banks, banks, clearinghouses and fintech firms.

The case company is small but relatively international. Most of the revenue comes from abroad from the headquarters' perspective in Finland. The customer base is small compared to typical SaaS companies, but the customers are usually large in size. This means that the significance of any single customer is relatively high. The case company has around 15 employees, roughly categorised into sales, development, and customer project teams. The lastly mentioned team is for technical implementation and configuration of the service for new customers. Alongside these teams, there is the management, including the CEO and board of the company. The majority of the employees work from Finland or Ireland, but approximately one-third of the company works from various countries worldwide.

Generally, the customer acquisition process takes several months to years, including one or two proofs-of-concept (POCs) and lengthy contract negotiations. After the initial process, customers are usually satisfied with the service and often ask for more functions and new implementations. After the setup process is finished, the customer relationship becomes more challenging to maintain due to decreasing communication.

The pricing model is twofold. The set-up projects are priced project-based with a set price. Invoices are tied to the goals and are usually split along the project. The service itself is priced with a fixed recurring monthly fee which covers the usage and support. Contracts typically last for a few years and often continue. Various factors affect the price level of both the set-up project and the reoccurring fee. These include the number of supported payment messages, services in use, number of users, business market area, additional services (e.g., white-labelling), and contract length. The POCs can sometimes be billed separately.

Some customers require on-premises software installations, meaning a step away from the conventional SaaS business model. This affects the set-up process, support practices and requirements, company knowledge resources and other fundamental dynamics of the business. The need is almost always due to tight security protocols on the client-side. This approach is relatively new for the company; thus, the processes are still to be developed and other impacts analysed.

1.3 Scope and content

The scope of this thesis is limited to a single pricing case performed by the case company. The case is a new service for an initial customer; hence some deviation from

a typical case of the case company might occur. The typical cases are not part of the scope, and therefore the differences are not covered in this study. Further comparisons with similar cases outside the case company are likewise left for future research. The literature is introduced to a certain level of detail, which was still manageable but gave a well enough perspective on pricing in the case context. The empirical research was conducted within the case company, and the scope excluded external viewpoints.

The remainder of the paper is structured as follows: First, an overview of the current literature on pricing is in chapter 2. First, at a general level, followed by more detail regarding the case's specifics. Then chapter 3 presents the methodology of the research. The results of the study are described in chapter 4. The connection between theory and empirical findings is discussed in detail in chapter 5. Lastly, the conclusions are drawn in chapter 6, including final remarks, practical implications, and suggestions for future research.

2. PRICING

Academics often perceive pricing as a part of the famous marketing mix, also known as the 4Ps introduced by Borden (1965) and McCarthy (1960). However, it affects the company more broadly than only the marketing team. It affects how the whole company should think (Lancioni et al. 2005; Liozu 2015, pp. 15–32). Numerous factors affect pricing, from overall strategy to minor things at the execution level. Hence, pricing differs from company to company since no company is alike. Furthermore, a single company can use varied pricing strategies for different situations (Noble & Gruca 1999). As a further introduction to pricing literature, three well-known pricing models are abridged in the following paragraphs.

The fundamentals of pricing include the concept of the three Cs: Cost, Competition, and Customer value. The concept is well known and referred to widely across the literature (e.g. Hinterhuber 2004; Mohr et al. 2005, pp. 289–292; Baur et al. 2014; Liozu 2017). Since as early as Ōmae (1982), the core has been unchanged. Typically, the cost factor acts as a floor for the price. A company can't sell the products or services under their costs in the long term while also being profitable. Disclaimer: on special occasions and short term, this might be a valid approach (Viardot 2004, pp. 255–256). While it is good to account, pricing based solely on the company's cost structure often fails to recognise external factors' impact on profitability. The competition factor is often seen as a benchmark for the pricing used. The company can choose to price under, the same, or over what the competition is pricing similar products. The key is to know where your pricing stands and that it's tied to the company's strategy. Lastly, the customer value factor can be simplified as the ceiling for pricing. Customers balance the perceived value and the cost while making their purchasing decision. The perceived value can include functional, operational, financial, and personal benefits. Also, the cost can contain different monetary and non-monetary costs. (Mohr et al. 2005, pp. 289–292)

Guerreiro and Amaral (2018) gathered that the customer value-based pricing approach is the most recommended among pricing literature. This aligns with what Hinterhuber (2008) remarked in his study. He continued, however, that no empirical studies back the fact that customer value-based pricing approaches increase profitability. This has since been proven with empirical studies (Liozu 2017). Based on their research, Hinterhuber and Liozu (2012) introduced the pricing capacity grid (see figure 1) to categorise different pricing methods and practices. They see that the most successful pricing method is value-based pricing combined with strong price realisation. The price orientation axis of

the pricing capacity grid refers to the three Cs of pricing, and the price realisation axis refers to the ability to realise the set prices. Fundamentally, this means the ability to translate pricing goals into results. Various factors affect the price realisation, e.g., discounts and sales processes, which need to be optimised to gain a strong position in the pricing negotiations. (Hinterhuber & Liozu 2012)

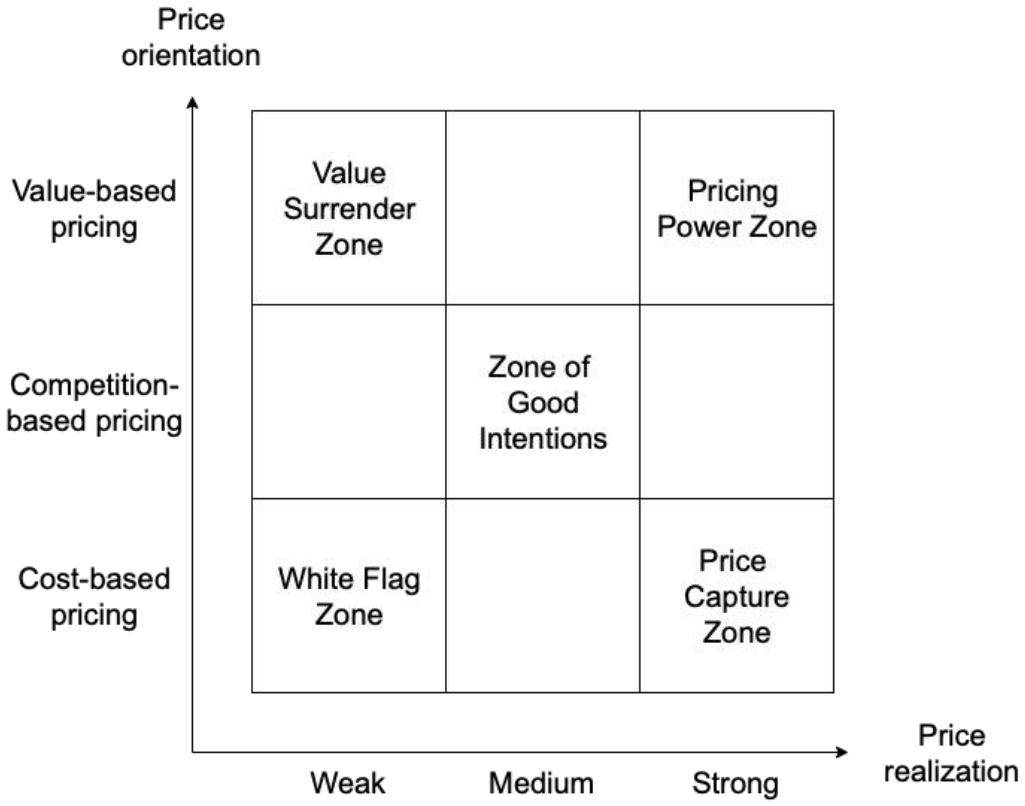

Figure 1 Pricing Capability Grid (Hinterhuber & Liozu 2012; Liozu 2015, pp. 17–23)

The pricing capacity grid has five zones of pricing. The best is the pricing power zone, where the company utilises value-based pricing and is strong in price realisation. Companies in the power zone often have a pricing culture, pricing analysis tools, robust pricing processes, and dedicated personnel responsible for pricing at a senior level. The opposite of the pricing power zone is the white flag zone, where pricing is solely based on costs. In this zone, customers have pricing power, and pricing processes are unorganised and handled poorly. In the value surrender zone, list prices or pricing goals are well defined and based on customer value. The theory of pricing is taken into account. However, processes are still handled poorly, resulting in execution not meeting the goals. By contrast, in the pricing capture zone, companies have a streamlined pricing process, and the realisation of the list prices or goals is strong. However, the goals or list

prices do not reflect the received customer value from the product or service. This simply means that money is left on the table. In the middle of the grid, there's the zone of good intentions. In this zone, companies have slightly advanced processes in place for pricing, but they are still not meeting the power zone's requirements. They might use competitor-based pricing or other progressive methods and have some say in price realisation, but they still lack in both aspects. (Hinterhuber & Liozu 2012)

Liozu (2015), in his book, describes the transformation a company must go through to move from the other zones towards the pricing power zone. He introduces the 5 Cs of pricing excellence: champions, central-led management, confidence, change capacity and pricing capabilities. A champion is a person within the company who advocates pricing as a priority. The champion needs to be among the top management to have the leverage to make the required difference (Roll 2009). Central-led pricing aims to be a middle ground between centralised and decentralised pricing management. In this approach, a dedicated team controls the pricing processes, but it also has a close relationship with the sales personnel to have a short feedback loop. Pricing capabilities refer to tangible and intangible resources and assets that contribute to the company's ability to practice advanced pricing. These capabilities include personnel training, business intelligence, market- and pricing analysis, and the different tools needed to exercise these activities. The change capacity of a firm implies how well the firm handles change overall. This is crucial in a company that tries to change its pricing strategy and methods because pricing affects vastly throughout the whole company. Lastly, the lack of confidence can be a source of pricing related problems. It mainly affects the price realisation part of the pricing grid since it is hard to articulate the value to the customer without trust in the product or service. These 5 Cs are needed for the company to advance in the pricing grid towards the end goal of pricing power. (Liozu 2015)

Shipley & Jobber (2001) illustrated the general pricing process with what they call the pricing wheel. The concept has been referred broadly in more recent literature (e.g. Hinterhuber 2004; Laatikainen et al. 2013; Baur et al. 2014; Guerreiro & Amaral 2018). The process is iterative, highlighting that pricing needs constant attention from the firm. The pricing wheel contains six steps displayed in the following figure 2.

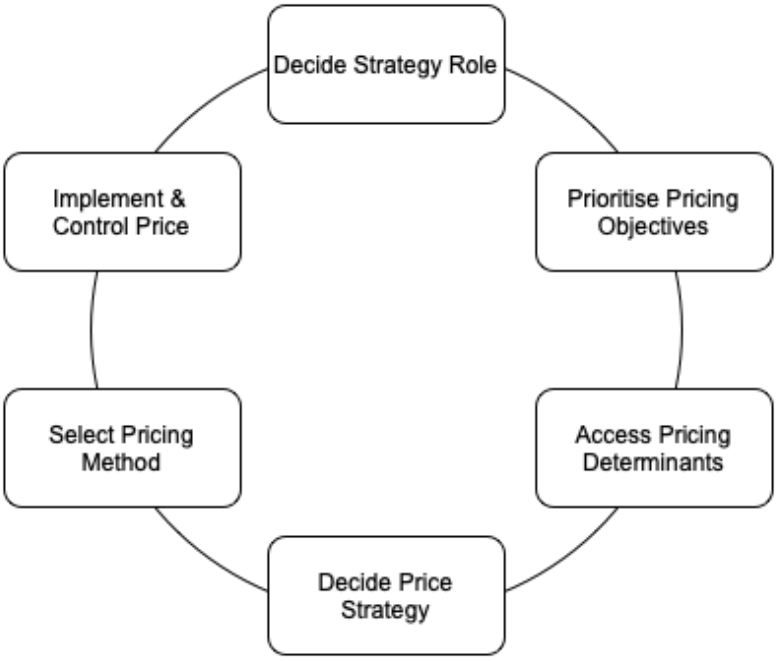

Figure 2 Pricing Wheel (Shipley & Jobber 2001)

Starting from the top of the pricing wheel, the first step is deciding on the strategic role of pricing. It can either play a prominent or a supportive role, often depending on the external and internal situation of the firm. For example, when customers are price-sensitive, pricing needs to be at the forefront of marketing. On the opposite, when the pre- and after-sales form a large portion of the lifetime cost, the initial price doesn't have a massive role in the bigger picture. Regardless of choice, it may take time and effort to change the approach once established. (Shipley & Jobber 2001) To broaden the view of the second point, pre- and after-sales services need to be priced as well, thus making the pricing of the full service more complex and equally important. Pricing affects demand and influences usage of the product or service and has a long-term impact on the customer relationship (Gourville & Soman 2002). Therefore, based on more recent literature (Kienzler & Kowalkowski 2017), the question is not whether or not pricing has a strategic role, but what type of a role it has.

Pricing objectives need to be aligned with the company's broader goals and marketing strategy. Since these underlining aspects are keen to change over time, the pricing objectives need to be flexible and adjustable. Often companies confine a group of objectives to focus on. The choice depends on the details of the company. Moreover, the objectives are often prioritised in case of conflicts. The most critical and recognised objectives are related to survival, profits, sales volume, sales revenue, market share,

competitive parity or advantage, image creation, barriers to entry, and perceived fairness. (Shipley & Jobber 2001)

Pricing determinants refer to the three Cs of pricing: cost, competition, and customers. In a market-focused company, cost analysis aims to determine that the chosen price is profitable for the company. The pricing of competition needs to be actively monitored, accounted for, and acted upon if seen as appropriate. It is vital to continually monitor the customer market conditions and adapt prices with the predictions of market movements. (Shipley & Jobber 2001)

Shipley and Jobber (2001) recognises that there are many dimensions in price strategy. However, they focus on two: price positioning and new product pricing. Price positioning depends on price and perceived benefits compared to the competition. For example, with high benefits compared to the competition and low prices, you probably will be the market ruler, even though the position might be difficult to achieve and maintain. Pricing a new product can be challenging due to uncertainty. The duo introduces three strategies: long term real pricing, skimming pricing, and penetration pricing. In the long-term real pricing, the price is set to the goal price at the start. In skimming pricing, the price is initially set higher and eventually decreased to the long-term real price level. Penetration pricing is the opposite, where the initial price is lower than the long-term real price and finally increased. Skimming pricing aims to capitalise on the customers willing to pay higher fees. Penetration pricing wishes to gain market share initially and then rely on customer loyalty when the prices increase. Noble and Gruca (1999) remarked that skimming pricing is often used in markets with high product differentiation and by companies with cost disadvantages due to scale. Penetration pricing is used typically by a firm with cost advantages and in the early stages of the product life cycle, where competition comes primarily from substitutes.

When selecting a pricing method, it is apparent that leaning exclusively on one of the three Cs of pricing is a flawed approach. Shipley and Jobber (2001) introduce an integrative pricing method to tie the three together. The price that the customers are willing to pay acts as the price ceiling. The average and direct costs form the floor for the pricing. If a viable gap between the ceiling and the floor exists, a set of influencing variables will dictate the price within the interval. These include the competition, strategy, and objectives. With similar conclusions, Armstrong and Collopy (1996) affirm that the use of only competition-based pricing will be detrimental to profitability. Indounas (2009) argues that customer-based pricing along with cost and competition approaches is the best option.

The last step of the cycle is implementing and controlling the price. This includes the communication of the price, analysis of the response from the stakeholders, and continuously analysing the internal and external pricing determinants. If changes are significant, the pricing wheel needs to be revisited. (Shipley & Jobber 2001)

The strategic pricing pyramid introduced by Nagle et al. (2016) (see figure 3) is a third pricing model that focuses on a process similar to the pricing wheel. The model derives from three underlining principles: value-based, proactive, and profit-driven. The value-based refers to the customer value of the three Cs. They suggest focusing mainly on the provided value when making pricing decisions. Being proactive means anticipating disruptive events and developing strategies to deal with them. Profit-driven means that the success of pricing is evaluated against profit as an investment rather than comparing it to the competitors. These three principles are factored in at all stages of the strategic pyramid. The pyramid contains five layers, representing different choices to develop the pricing strategy. Starting from the bottom, the questions will be founding the following steps above, as the grounds of a pyramid supporting the layers on top. (Nagle et al. 2016)

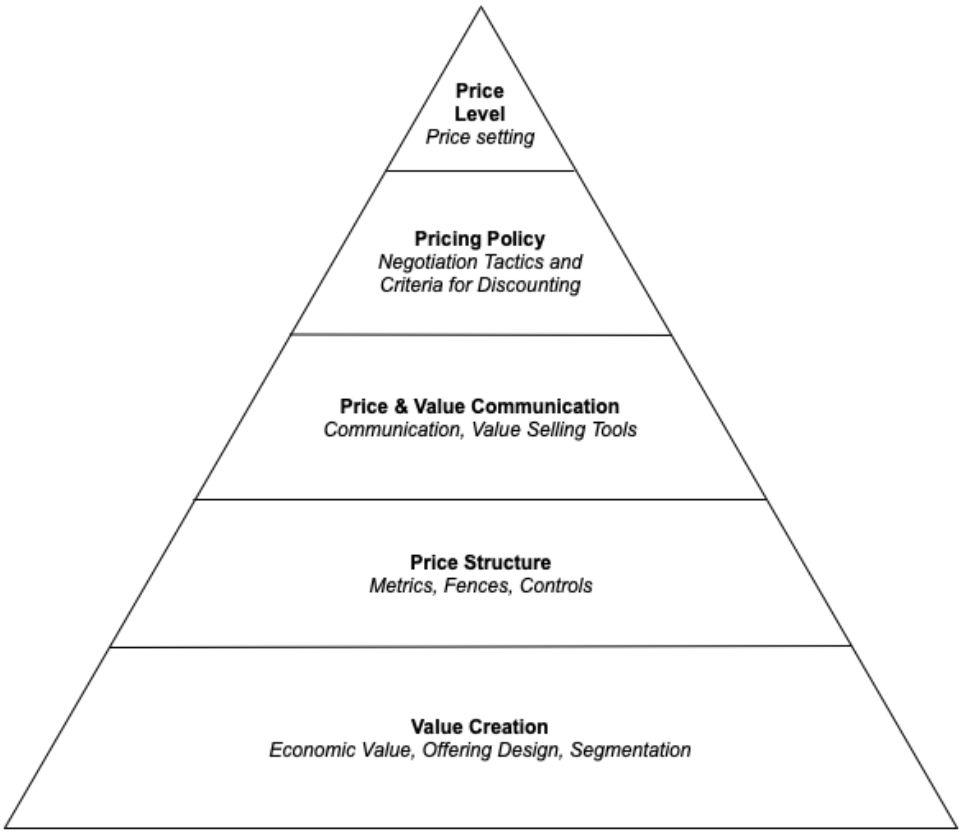

Figure 3 Strategic Pricing Pyramid (Nagle et al. 2016)

The bottom layer of the strategic pricing pyramid by Nagle et al. (2016) is value creation. In their context, it means that the process of developing a product or a service starts from seeing the value for the customer and making sure that costs are below the value provided. If this is manageable for the company, it can proceed to the next level. This aligns with the studies, which perceive value-based pricing as the best approach (Hinterhuber 2008; Liozu 2017; Guerreiro & Amaral 2018). It is noteworthy that in knowledge-intensive business services, the value creation is likely to be a cooperation between the supplier and the buyer (Aarikka-Stenroos & Jaakkola 2012). This makes it difficult or even impossible to comprehend the total value generated beforehand.

The pricing structure can be simple, or it can become highly complex. Often the complexity comes from serving different types of users who value the product or service differently. These are called customer segments, and the goal is to capture the best price for each segment. (Nagle et al. 2016) In the B2B industry especially, segmentation can be challenging due to the complexity of the market and the actors (Mora Cortez et al. 2021).

Price and value communication is a stepping stone for many. It can be tough to articulate the provided benefits to the customer to truly see the total value of the product or service. A successful pricing strategy must justify the cost for the customer. (Nagle et al. 2016) Likewise, Töytäri and Rajala (2015) emphasise that the customer value needs to be understood by the customer, which will require value-based selling capabilities, e.g., value quantification, value sharing, and value verification.

Pricing policy refers to the rules and habits that dictate how the company handles pricing when faced with factors other than value and cost that threaten the ability to meet the pricing objectives. Poor pricing policies can lead to a decrease in the future willingness to pay or the volumes bought by the customers. Pricing policies largely affect customers and the actions of internal sales representatives and the company's competitors. (Nagle et al. 2016) This ties back to the value realisation axis of the pricing capability grid (see figure 1) introduced by Hinterhuber and Liozu (2012).

The highest layer of the pyramid is the price level which refers to the iterative and cross-functional process of setting the price. This contains three actions: firstly, set the pricing objectives. Secondly, to estimate the price-volume trade-offs. Finally, to evaluate the likely response from the customers. (Nagle et al. 2016) These pricing objectives refer to the pricing strategies that Shipley and Jobber (2001) introduced in their pricing wheel. The second action might be more focused on high volume companies. The third action point refers fundamentally to the price sensitivity of the customers. The price sensitivity

of the customers can be affected not only by the pricing process but also by multiple other factors, too (Gao et al. 2017).

These general pricing theories are helpful when developing pricing in any business environment. As prominent, they share similarities. Nonetheless, they provide value with their unique perspectives on the process of pricing. The pricing specifics in the case conditions are reflected in-depth in the following chapters. Starting with global B2B pricing, continuing with details of the software business, and then proceeding to software pricing. The aim is to gain a good overview of the current theory regarding pricing in the context of the case. Conclusively, a summarising framework is gathered from the literature review findings.

2.1 Global B2B pricing

The industrial market, also known as the B2B market, can simply be defined as organisations buying or renting products and services from other organisations. Typically, the reason for a business to purchase anything is to increase profits by either boosting sales or cutting costs. A third reason might be to meet regulations. Particularly in the international market, it is essential to promote the appeal of one of these primary reasons to buy. (Zimmerman & Blythe 2018, pp. 3–4)

Often, in industrial markets, the supplier and buyer relationship contain more than just exchanging a single good or a service. Helander and Möller (2008) introduce three relationship levels: supplier, solution provider, and performance provider. The basic supplier may have minor additional services included in the contract, e.g., maintenance or support. However, the customer is mainly independent of the supplier and has strong capabilities to perform on its own. The solution provider has profound knowledge of the customer's business and offers an end-to-end solution. The supplier delivers all support activities, including workshops and involvement in co-teams. The customer has strong to medium capabilities on its own, and they share the expertise and resources with the supplier. The performance provider manages the customer's processes with performance guarantees. This includes continuous optimisation and identifying the customer's future needs. The customer relies on the supplier's expertise but may have strong to low capabilities on its own, depending on the case. Macdonald et al. (2016) capsulise that business solutions combine customer and supplier resources and processes throughout a joint integration to generate shared and individual value in use.

Guerreiro and Amaral (2018) establish that B2B companies typically prefer value-based and cost-based pricing over competition-based pricing. They also clarify that they often

use both in combination rather than choosing one or the other. Indounas (2009) agrees that in addition to market-based pricing objectives and methods, it's found best to take profit- and cost-based information into account. The main obstacle for B2B companies in competition-based pricing is finding accurate and up-to-date competitor information (Roll 2009; Guerreiro & Amaral 2018). Likewise, customer demand and needs can be difficult to determine in the B2B industry (Avlonitis & Indounas 2005). Aarikka-Stenroos and Jaakkola (2012) continue to analyse the collaborative co-creation process of value in the B2B relationship. They highlight that the supplier and the customer play a critical role in the value-creating process in knowledge-intensive business services. In other words, also the customer is actively participating in the value creation. However, value co-creation can carry risks arising from the relationship, for instance, role conflicts, weak-form opportunism, and powerplay (Chowdhury et al. 2016). Nonetheless, this shouldn't be disconcerting because, despite the challenges, customer value is generally seen as the most important aspect of pricing in modern-day (Kienzler & Kowalkowski 2017).

There is a lack of empirical research in the field of B2B pricing (Indounas 2009). This argument is backed by Kienzler's and Kowalkowski's (2017) extensive market research. They conclude that B2B pricing has gained much less attention in the academic world than business-to-consumer (B2C). Some argue that B2B shouldn't be even considered in isolation from the whole market context, including the B2C aspect, among others (Gummesson & Polese 2009; Vargo & Lusch 2011). Keeping that in mind, even if some of the methods can be applied to B2C and B2B, there still can be key differences between the two. For example, industrial faced companies typically serve fewer clients, and the transactions tend to be larger. Customising the product or service is common, and the selling process is long and complex. (Narayandas 2005) In addition, the customer buying decisions generally are objective and based on facts (Farres 2012). There are intraorganizational factors that affect the pricing strategy within the company (Lancioni et al. 2005). These can have an immense impact on pricing and consequently needs to be considered.

Some additional characteristics of the B2B scheme can affect pricing: customer references and contract upgrades/renewals. In the industrial markets, customer references become an essential part of marketing. This is especially true in highly complex and innovative markets, where customer value becomes harder to communicate. Externally, customer reference marketing is used to concretise the value delivery, transfer status from reputable clients, and provide evidence of previous performance and skill. It also serves a purpose internally, e.g., in organisational learning and motivation. (Jalkala 2009) The reference value can give an advantage in keeping

existing customers as well as acquiring new ones (Helm & Salminen 2010). These gains should be considered when pricing a solution for a new reputable customer. In the B2B services market, the decision to upgrade a contract instead of renewing or discontinuing it is affected by customer satisfaction, product-customer fit, and service quality. It is suggested to focus on account management and service delivery to grow relationships through service contract updates. Updating current contracts can be highly lucrative by increasing the lifetime value without a large investment in acquisition costs. (Bolton et al. 2008)

Similarly, the international business environment affects the company at its core. For example, marketing, to which pricing is a part, must take into account social and cultural differences in the international setting. (Morrison 2006) Williams et al. (2017) highlight similarly that in the global B2B market, companies need to adapt utilitarian drivers, like product and price, in different cultures. Czinkota et al. (2011, pp. 505–509) continue that international pricing is determined by corporate objectives, cost, customer behaviour, market conditions and structure, and environmental constraints. The objectives for pricing, which are also present in the pricing wheel in figure 2, are to be set to each market independently. The following three determinants from their list are fundamentally the three Cs of pricing but are named differently. All three need to be accounted for separately in the new markets. Lastly, the environmental constraints might be taken for granted in the domestic markets but are needed to be carefully analysed when doing business abroad. Albaum et al. (2016, pp. 490–505) advocate an identical set of pricing determinants for the international markets, including the three Cs, legal/political influence, and company policies.

The pricing policies can vary from standard and fixed to adaptive and strategic variations. The standard policy aims to have a common approach for all markets with only variation in the price coming from the service costs. The other extreme is the adaptive pricing policy, where the approach might differ completely depending on the market. (Mühlbacher et al. 2006, pp. 663–669) The level of standardisation in international pricing policy depends on the level of similarity between the different markets in terms of customer characteristics, legal environment, economic conditions, and stage of the product life cycle (Theodosiou & Katsikeas 2001). Identifying and appreciating the differences of the markets is key in the decision of standardisation versus adaptation (Marsh 2000). The performance of the standardisation depends on the presence of fit between the standardisation strategy deployed and environmental conditions (Katsikeas et al. 2006). The further the market is from home, the more there is a lean toward adaptive pricing (Kraus et al. 2016). An example of pricing adaptation is the usage of the

number 8 as the last number of the price in Asian markets rather than the number 9, which is more typical in western markets. The minor detail makes a difference in the consumer response, and it can be used as a tool for branding. (Westjohn et al. 2017)

International business brings additional risks that need to be considered. Currency risk occurs when dealing with multiple currencies. The main threat related to currency is the exchange rate volatility between the currencies, which means that the value of the deal in local currency might change from the closure to the time of payment due to the change in the exchange rate. This can be either a positive or a negative change. Companies can use hedging to decrease the risk. (e.g. Mühlbacher et al. 2006, pp. 659–693; Czinkota et al. 2011, pp. 501–504; Albaum et al. 2016, pp. 513–515) Determining whether to hedge or not to hedge, depends on the company's situation. An empirical study showed that 90% of US banks and 58% of US industries were affected by the USD/JPY exchange movements. The study also concluded that the currency risk was one of the priced factors in the arbitrary pricing model, meaning that hedging would be justifiable for those companies. (Tai 2008) Using derivates in the attempt to hedge the currency risk can also increase the firm's risks. However, based on Hentschel and Kothari (2001), the overall volatility of a large corporate did not statistically increase or decrease. They explain that typically these short-term contracts represent a small fraction of firm value; thus it wouldn't influence the overall firm volatility. For a smaller company, the situation might be different.

As remarked, both the B2B market and the international environment fundamentally affect the company, bringing aspects to the pricing process. The additional complexity brings new parameters to be analysed and considered.

2.2 Software business

Software products have distinctive characteristics to differentiate them from other types of goods and services. Reproducibility is a key feature that allows comparatively easy and cheap reselling of an existing product. The variable cost can be almost non-existent. Continuous development of the product is also standard, which means providing updates and maintenance throughout the lifetime of the product. (Buxmann et al. 2013, p. 3) The required initial investments in software developments are low due to the almost non-existent need for physical prerequisites. Thus, the entry barrier for the industry is relatively low. This leads to higher rates of innovation in the industry overall and is expected for the companies to survive. (Hoch 2000, pp. 37–44)

The software market has its quirks as well. It is one of the most international industries due to the nature of the work and the Internet. This network effect has made the competition worldwide in all aspects of the industry. The staff can work almost everywhere and also the customers can be from any country. This can lead to a winner-takes-all market. (Diefenbach & Hess 2012, p. 3) Other characteristics include customer lock-in, especially with complex and highly integrated software, and a high percentage of projects being delayed or over budget due to unforeseen reasons. Also, the fact that the software industry serves almost all other industries one way or the other differentiates it from the other industries. (Cusumano 2004, pp. 1–4) Kittlaus and Clough (2009, pp. 28–30), in their book, introduced a law of increasing returns, originally from Arthur (1996), which they argue is present in the software industry. The law states that the product or service with a high market share will experience an improved market position. In contrast, similar products or services with low market shares will experience the opposite. This is due to the network effect, increasing cost of switching, and trust in the market leader.

The market contains various types of software firms, including consultancy, service, and product firms (Slaughter 2014, pp. 19–26). There are no strict lines between the types. For example, consultancy can include hiring software engineers to work on an internal product, whereas services orientated software firms can be hired to do a similar job as a project. A product firm can be distinguished by selling an existing software product or a service for multiple customers. Cusumano (2004, pp. 24–29) points out that there are hybrid companies that gain their revenues from both products and services.

The standard approach to software business is project-based. The main goal of a software project is to develop a system for a customer. It can be a bespoke application, an off-the-shelf application sold to multiple customers, or a semi-customized application configured for the customer. (Villafiorita 2014). The software projects are generally managed with the help of a software development method. There are countless methods and combinations of them, but a method called agile has been the go-to most recently. The idea behind the agile methodology is to work incrementally, adaptively, and in cooperation with the stakeholders. (Martin 2020). The critical success factors for an agile software project are sound delivery strategy, proper agile practices, and a high performing team (Chow & Cao 2008). Agile methods work for all sizes of software projects (Jørgensen 2018).

The delivery of the software is a critical part of the project and also a key design question, especially for product firms. Essentially, there are two approaches to delivering software to a customer: on-premises and the cloud. An on-premises installation in the enterprise scheme means that the software provided is running on a server located physically on

the customer's premises. This approach can also be called a private cloud. It's typically used by organisations with high-security needs. (Brandao 2020) The approach requires highly skilled IT personnel to manage the on-site hardware. Thus it bears high costs (Fernandes et al. 2014). Li et al. (2017) add that there is also a hybrid model where the supplier provides both on-premises and a SaaS solution for the customers to choose from. They continue that the networking effects and the estimation of the software quality improvements play a role in the customer's choice of delivery method. High network effects and large estimated improvements in the quality lead the customer to choose the cloud model.

Cloud computing is a modern solution for outsourcing information technology services. It provides a cost-efficient and flexible service while also providing the latest innovative solutions with the option to customise. A key difference is the lack of hardware on both the customer and the supplier side, as it's often acquired from a third-party provider. (Leimeister et al. 2010) To go into more detail, a proposed ontology of the cloud computing scheme is displayed in the following figure 4.

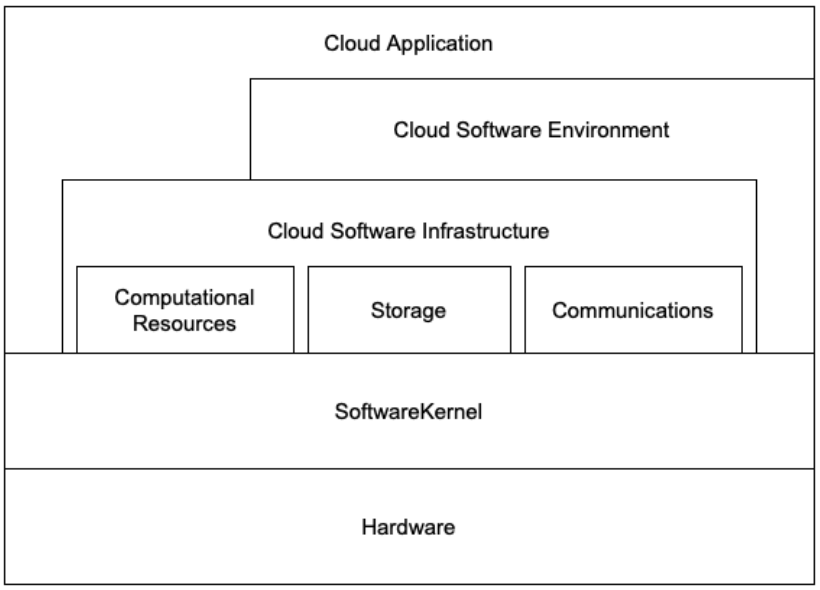

Figure 4 Cloud computing ontology (Adapted from Youseff et al. 2008)

From the top of the figure, cloud applications refer to the applications run on the cloud. This is the most visible layer for the end-user. This is the layer where SaaS companies operate. The next layer is the software environment. It's more generally known as the layer where the platform-as-a-service is offered for developers. After which is the infrastructure layer, containing computational resources, storage, and communications. All of which can be provided separately or all together. The second to last layer is the software kernel, where the operating system is run. Lastly, at the bottom, there is the

actual hardware layer. (Youseff et al. 2008) Typically, the service provider will be a SaaS company, buying either (or both) the infrastructure or the platform from a third party (Leimeister et al. 2010). Especially governmental and industrial customers might see risks in a cloud-based solution. The main disadvantages are related to continuity, performance, privacy, control of the IT function, and influence on the development directions. (Janssen & Joha 2011) There are also some more technical risks in cloud computing that can be grouped under security, pushing customers towards alternative solutions like the private cloud (Fernandes et al. 2014). The difference between an on-premises and a cloud approach can be seen not only on the technical side and how the customers access the service, but it also affects all the business model components of the supplier, e.g., customer value proposition, resource base, value configuration, and financial flows. (Boillat & Legner 2013)

SaaS can be defined as providing a standard software solution to customers as a service over the Internet. The SaaS provider operates and maintains multitenant software, apart from when the software is run in a private cloud environment. The customers compensate for the right to use the software most often with a reoccurring fee. (Buxmann et al. 2013, pp. 169–179) Multitenancy brings benefits and some drawbacks. Benefits include utilising resources, easier application maintenance, lower costs, and data aggregation opportunities. Some problems are performance, scalability, security, and downtime maintenance. (Bezemer & Zaidman 2010)

Luoma et al. (2012) identify three SaaS business models used by practitioners. Self-service SaaS is the model familiar to individual consumers. It's a simple, easy to adopt application with fully automated processes. As they call it, pure-play SaaS targets small and medium-sized enterprises with a standardised web service. They can have a small entry fee and a reoccurring fee. The target is to minimise human contact to reduce marginal costs. The third suggested model is enterprise SaaS. In this model, the application is complex and mass-customised for the client. The target is high-touch customers with tailored contracts, often involving separate fees for entry and service on top of the reoccurring fee. In this model, the supplier is required to have domain expertise and provide support services. (Luoma et al. 2012) Moreover, Weinhardt et al. (2009) identify the "long tail in clouds" or the SaaS companies that focus on niche markets. They have a low-cost base provided by the cloud approach but still a high customisability for niche customers.

2.3 Software pricing

There's a fundamental model in project management, which is especially true in software development, called the iron cross of project management. It says that you can pick any three of the following attributes: good, fast, cheap, and done. The remaining one will not be obtainable. (Martin 2020) To put it differently, the coefficients of quality, timeline, price, and scope need to be managed. For instance, you can have a swift, reasonably priced, and high-quality software project, but then the scope needs to be aligned.

There are three common ways of selling software: licensing, leasing, and selling. The difference between these is in the ownership and the right to use. Typically, in one-off projects, the customer might be interested in the ownership, and thus, selling is a valid approach. Off-the-shelf software is often either licensed or leased, where the ownership remains with the supplier. The difference between the two is that a licence gives the customer the right to use the software unlimitedly, but the time to use the software is limited when leasing. Leasing is common in services delivered over the Internet, where the supplier has control over the usage. The licensing approach might be more suitable in desktop applications where the supplier's control is limited. (Villafiorita 2014) Findings of Ojala (2016) show how software providers may be mandated to provide their products under license for clients with high bargaining power. The terms licencing and leasing in software are sometimes mixed, and some researchers don't follow the same logic as above. The remainder of this thesis will use the term licence but refer to the description of leasing from above. This follows the terminology used by the case company.

Lehman and Buxmann (2009) introduced a comprehensive model of software pricing parameters captured in the following figure 5. They argue that due to the particularities of the software industry, it is key to identify the parameters that are specific for it since they differ from the parameters of pricing in traditional fields.

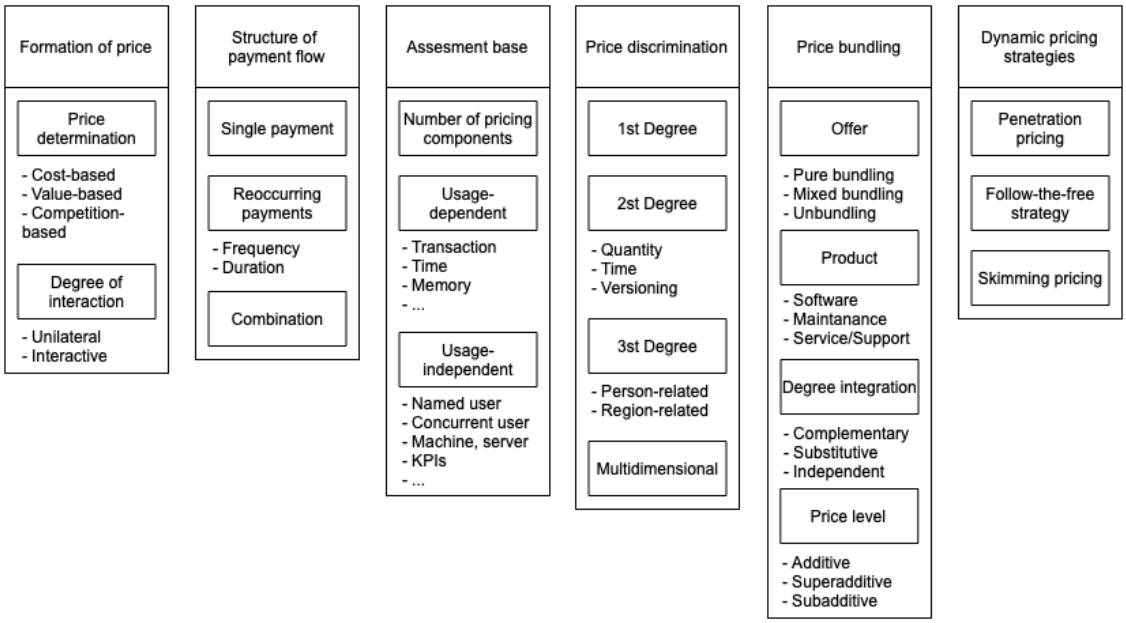

Figure 5 Pricing parameters (Adapted from Lehmann & Buxmann 2009)

The formation of pricing lays the foundation for the price. The pricing determinants are the three Cs of pricing covered earlier in chapter 2. The degree of interaction refers to the customer's level of input over the price. In some cases, the price is directly a list price, while in other cases, there are lengthy negotiations to define the price. (Lehmann & Buxmann 2009)

The most desirable payment flow for a software firm is the reoccurring revenue. Investors prefer to have steady and predictable streams of revenue. This helps the business itself in budgeting and planning. One time charge is still a valid alternative; however, the maintenance, support, and upgrades must be carefully planned. One time charge has its benefits, like that the payback is shorter. A hybrid solution entails both an initial charge and a reoccurring charge. (Kittlaus & Clough 2009, pp. 130–137)

Closely tied to the payment flow, the assessment base is another design decision. It describes how pricing is linked with the usage or the size of the service. The link can be an industry-specific meter, which means that the pricing component can vary based on measures subject to the product. Some more general examples include users, transactions, time, or computing. (Kittlaus & Clough 2009, pp. 130–137; Lehmann & Buxmann 2009)

The next parameter is price discrimination. It means offering the same product to different customers at different prices. There are three forms of discrimination: first, second, and third-degree. In first-degree price discrimination, each customer receives a price offer matching the willingness to pay. In the second degree, pricing is based on

self-selection, for example, when the customer decides on the scope and price. The third degree of price discrimination is based on market segmentation. (Lehmann & Buxmann 2009)

Combining different identifiable services or products as a single package with one total price is essentially price bundling. It bears many benefits in the software business. For instance, it fosters a greater distribution of additional products on the market. It also generates savings in the procurement and delivery processes. There are different variations of bundling. The possibilities depend on the business model, products or services provided, and client preferences. The bundle can include the software combined with additional services, like maintenance and support. Another option is to combine multiple different software products. The level of integration of the products can vary from tightly integrated to completely separate products. The price of the bundle can be additive, superadditive or subadditive. Meaning it can be more, less or the same as the combined price when the products are bought separately. (Lehmann & Buxmann 2009)

Lastly, the price can be dynamic and fluctuate over time. Mainly this refers to the pricing strategies introduced on the pricing wheel (see figure 2). Lehmann and Buxmann (2009) present an additional strategy called follow-the-free. The main product is given free, and the additional services, complementary products, or premium versions are then priced in this strategy. The idea is to establish a product lock-in effect.

As it stands, software development usually isn't straightforward in the B2B market. The projects can be large and complex. There are critical design questions that affect the business model. As a result, pricing software is a key question for software companies.

2.3.1 SaaS pricing

Pricing is a vital component of the SaaS business model. It can guide customers to use and purchase cloud services efficiently (Chi et al. 2017). Success can be achieved only by developing adequate pricing techniques (Weinhardt et al. 2009). What differentiates the SaaS model from the rest is that it bundles the licence and the maintenance together under one price. Cloud hosting increases the already large list of different determinants for the end price. (Cusumano 2007)

Laatikainen et al. (2013) introduced a seven dimension classification for SaaS pricing. It consists of scope, base, influence, formula, temporal rights, degree of discrimination, and dynamic pricing strategy. They further analysed the options within each dimension and revealed the popularity of those options. The results are gathered in the following table 1.

Table 1 Pricing models in the cloud industry (Adapted from Laatikainen et al. 2013)

Dimension	Option	Popularity
Scope	Pure bundling	● ● ●
	Predefined options	● ● ○
	Chosen amount of items	● ● ○
	Unbundling	● ● ○
Base	Cost	● ● ○
	Competition	● ● ○
	Performance	● ● ○
	Customer value	● ● ○
Influence	Price list	● ● ●
	Negotiation	● ● ○
	Result-based	● ○ ○
	Pay-what-you-want	● ○ ○
	Auction	● ○ ○
	Exogenous pricing	● ○ ○
Formula	Fixed price	● ● ○
	Fixed fee + unit price	● ● ○
	Tiered pricing	● ● ●
	Unit price + assured volume	● ● ○
	Unit price with a ceiling	● ○ ○
	Unit price	● ● ○
Temporal rights	Perpetual	● ● ○
	Subscription	● ● ●
	Pay per use	● ● ○
Degree of discrimination	No discrimination	● ● ○
	Third degree	● ○ ○
	Second degree	● ● ●
	Multidimensional	● ● ○
	First degree	● ○ ○
Dynamic pricing strategy	Long term real price	● ● ○
	Penetration	● ● ○
	Hybrid	● ● ○
	Skimming	● ● ○

In the table, the options of each dimension are gathered as a list. Then the popularity level is displayed with the three circles. Three filled (black) circles mean that the option is one of the most popular pricing model patterns in the SaaS industry based on Laatikainen et al. (2013) research. Two filled circles mean that the option's popularity is on a middle level. One filled circle means that SaaS practitioners rarely use the option. A couple of the dimensions, namely base and dynamic pricing strategy, didn't have the most popular choice.

In the classification, scope refers to the granularity of the offer. Between pure bundling and unbundling, there are mid-way options as well. For the SaaS industry, pure bundling is the most popular choice. The base of the SaaS pricing links to the 3 Cs of pricing. As a fourth option, performance-based pricing is introduced. It is a mix of cost and customer value approaches where the supplier guarantees a level of performance. Here the popularities of the approaches are not commented on. (Laatikainen et al. 2013)

The level of influence reflects the ability of the buyer and the seller to influence the price. If the supplier decides the prices alone, a price list of some sort is typically used. This is common for SaaS providers. The second popular option is negotiations, where both parties have some influence over the price. Auction or pay-what-you-want options are the opposite of a price list. In these cases, the buyer has all the influence. Exogenous pricing is when neither of the two has any influence, but an external source dictates the price. (Laatikainen et al. 2013)

The formula dimension explains the connection between price and volume. The fixed price option lacks the connection, and the connection is direct and strong in the unit price option. Tiered pricing is the common pick for the SaaS industry. In the option, the goal is to package the services and products to match the user's willingness to pay. The fixed priced packages can limit volume or functionality. (Laatikainen et al. 2013) Combining subscription (fixed price) and pay-per-use (unit price) into a two-part-tariffs approach can be the best choice for profit (Chun 2019).

Temporal rights indicate the length of the right to use the offerings. The perpetual option means practically length wise unlimited rights. The subscription option gives the rights for an agreed period. Lastly, in the pay-per-use option, the fees run every time the service is used. SaaS model highly prefers the subscription model, but, on some occasions, also the pay-per-use option is used. (Laatikainen et al. 2013) Al-Roomi et al. (2013) agree that subscription and pay-per-use approaches are the most popular among the different models they recognised. B2B software vendors prefer to implement the subscription over the pay-per-use model (Li et al. 2017).

Similarly, like in the Lehmann and Buxmann (2009) software pricing model, the degree of discrimination refers to how the same offering is priced differently for different customers. Furthermore, the dynamic pricing strategy dimension is derived from Lehmann's and Buxmann's (2009) article. Laatikainen et al. (2013) add that among the SaaS practitioners, second-degree discrimination is the most popular choice.

Laatikainen and Ojala (2014) continued to see how the architectural choices affect the pricing models a SaaS supplier can use. They find that the level of customizability impacts customers' influence on pricing. Moreover, a high level of modularity enables more bundling options for the supplier to use. They also highlight that if the pricing model changes, it might require changes in the architecture. In enterprise software, the implementation might require so much configuration and project work that the switching costs increase, making short-term leasing unprofitable for the customers (Ojala 2016).

Baur et al. (2015) introduced a conceptual model for a customer-centred pricing framework for the SaaS industry. It highlights the importance of customer loyalty and the comprehension of clients' needs and perceptions. The framework has a customer value-based pricing approach, and therefore the customer is in the middle of the model. They argue that this approach can lead to lower churn, higher customer satisfaction, and more pricing flexibility. The framework is represented in the following figure 6.

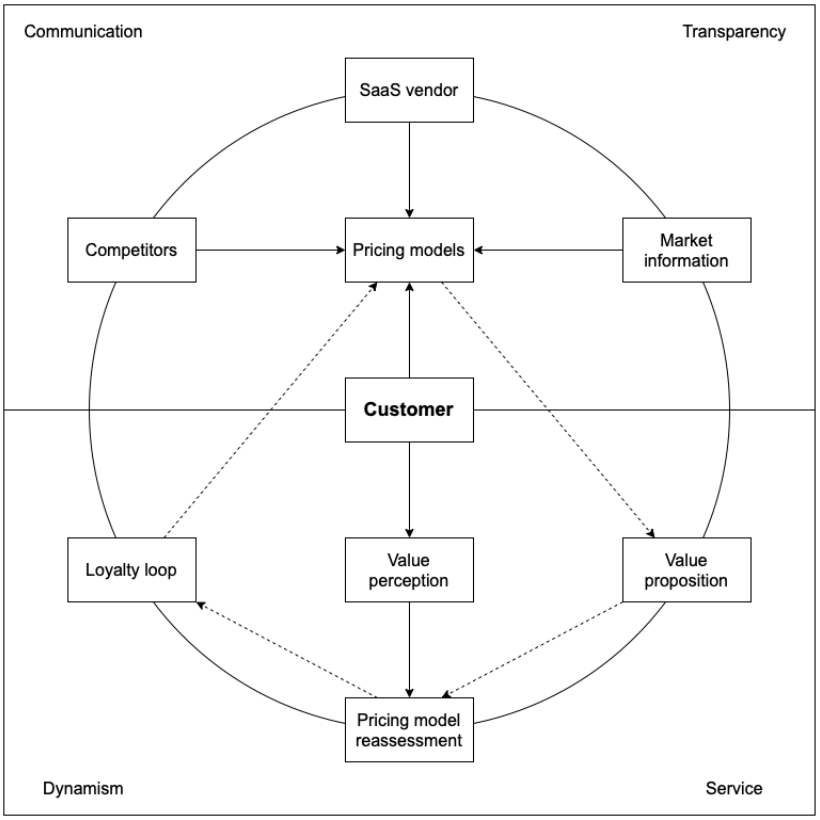

Figure 6 SaaS pricing framework (Adapted from Baur et al. 2015)

The figure of the SaaS pricing framework is divided into two sections, which represent different phases of the process. First, the upper level of the framework embodies the factors that lead to the pricing model. These are, first and foremost, the customer but also competition, market information and the vendor itself. The framework emphasises the transparency of the pricing method and how it's communicated to the customers. (Baur et al. 2015) Ojala (2016) emphasises that the competitive forces in the market determine the most suitable pricing model. SaaS firms can operate mixed revenue or hybrid pricing models depending on the market competition.

The lower level illustrates the post-purchase phase. The selected pricing model as a starting point, the value proposition needs to be monitored frequently to ensure that the customer needs are satisfied. To achieve this, a close customer relationship needs to be

established through service and relationship management. Often, the pricing model needs to be recalibrated for the customer. At least after a certain period of time. Here the dynamic nature of the pricing kicks in. The pricing model needs to be able to handle changes originating, for example, from the changes in the customer's business. If the pricing is flexible, the clients see that their needs are fulfilled, and value is created, they won't seek other services but remain loyal to the supplier. Striving towards a customer-centric value proposition is crucial for a SaaS provider. (Baur et al. 2015)

Ma and Seidmann (2015) distinguish the difference between SaaS and modifiable off-the-shelf (MOTS) software. Based on the descriptions, these concepts match with the concepts of pure-play SaaS and enterprise SaaS from Luoma et al. (2012). A minor difference is that Ma and Seidmann (2015) perceive the MOTS as an on-premises installation while Luoma et al. (2012) doesn't take a position on it. Ma and Seidmann (2015) recommend that pure-play SaaS providers must decrease their lack-of-fit costs and pass on the benefits of economies of scale to the customers. They recommend that enterprise SaaS or MOTS providers focus on improving the value of the software rather than reducing its price. They also add that providers can offer both approaches through versioning and segmenting the market to gain higher profits.

2.3.2 Project-based pricing

There are two prevalent forms to price a software project: fixed price (FP) or time-and-material pricing (T&M). The key difference is who bears the financial risks if the project is prolonged, terminated, or fails. Project-, vendor-, and client-related characteristics determine the contract choice. For instance, requirement uncertainty, team size, resource shortage, and project duration. The choice significantly determines the project profit. The characteristics also continuedly to influence the project profits during the project. Typically, when the uncertainty and size increase, the choice often leans towards the T&M contract. (Gopal et al. 2003)

Jørgensen et al. (2017) list out the client actions they found were critical to the success of a software project. Firstly, the client should focus not only on the price but also on the provider's competence when choosing the vendor. Only focusing on the pricing can lead to selecting an over-optimistic provider. Secondly, the client should monitor the vendor during the project and actively participate in the management and execution of the project. Thirdly, agile methods like flexible delivery scope and frequent delivery contribute to the project's success. Lastly, the benefits management should be focused on during the project execution. These tendencies are more often present when the contract type is a T&M contract rather than an FP contract. (Jørgensen et al. 2017)

High specification volatility projects tend to leave some details out of the contract. These incomplete contracts are likely to be granted to familiar suppliers who are not likely to exploit the opportunity. Capped T&M and FP contracts are useful for higher risk vendors or projects to lower the client's risk. Not-to-exceed T&M contracts limit the maximum contract size to a certain level. Firm FP contracts freeze the scope of the project and don't allow any changes, thus preventing costly renegotiations. These approaches help unknown vendors participate in smaller projects and gain the clients' trust. Mixed or hybrid contracts are used more typically in larger projects. (Fink et al. 2013) Dey et al. (2010) continue that FP and T&M contracts might lack proper incentives for the supplier to provide the best quality product. They suggest using a performance-based contract where the price is tied to the performance or quality of the product. They note, however, that it might be difficult to measure the quality of the software.

Bidding for contracts in the software business can be cumbersome. Often the bids are made based on or highly affected by the judgement of the senior personnel. The evaluation usually takes account of the price, perception of quality and risk, time schedule, and provider's skills. This means that smaller companies often need to lower their prices if they can't compete with the other points. Other things that the vendor would need to consider are the long-term benefits from the relationship, e.g., reference value, learning, and new projects with the customer. Sometimes, the vendor doesn't have an alternative for the resources; thus, a low-profit project is better than not having a project. The flexibility of the client when change requests are involved can vary. Some might not be ready to pay for changes. Compensatory actions, like shorter implementation times, can compensate for a higher price. Lastly, the bidding process can affect the end price. (Jorgensen & Carelius 2004)

A request for proposal (RFP) is typically a part of the pre-negotiation stage where two or more vendors are competing for the deal (Chu et al. 2020). The RFP contains a series of requirements to which the vendors describe how they meet the requirements. This process requires lots of effort from various people at the supplier. It can be difficult for the vendors to answer the large and complex RFP documentation in a short time frame, usually requested by the buyers. Furthermore, the direct communication between the supplier and the customer regarding the RFP usually is non-existent. (Paech et al. 2012) The RFP is a strategic tool for the buyer to induce competition and reduce the bids of the vendors (Chu et al. 2020).

Changes in the scope of a software project are inevitable. They can occur due to increased understanding of the stakeholders' needs, changes in user requirements, availability of new technologies, and customer organisational re-structure. These

changes are then introduced to the vendor as change requests (CR). (Ali & Lai 2016) Due to requirements changes, the fluctuations in the software's overall cost, quality, and schedule can affect the supplier. This is why CRs are one of the significant causes of software failure. (Cited in Ali & Lai 2016; Pambudi et al. 2020) The T&M contracts perform better if there are plenty CRs in the project (Pambudi et al. 2020). Ali and Lai (2016) argue that proper change management processes and timely action significantly increase the project's success rate.

In larger software projects, cash flow is something to bear in mind, especially in FP contracts. Often the supplier prefers the payment as early as possible, while the client prefers to pay as late as possible. Understandably both sides want to minimise their risks. Nonetheless, a compromise must be found. Villafiorita (2014) suggests either payment based on deliverables or time billing to solve this. The former approach involves agreeing on milestones for the project and a percentage of the payment to be paid when reached. In the latter approach, payments are made in a timely manner based on the expenses.

2.4 Summarising framework

Three main themes can be derived from the research questions. These are the pricing process, pricing parameters, and hybrid pricing. In the following figure 7, the key points from the literature are listed under each theme. The key points are also categorised similarly to the structure of the pricing chapter. It starts from the principal theories and advances to the more specific pricing concepts. New points are introduced under each category, but mutual ones are not rewritten. Consequently, the framework highlights the specific points for the themes under the categories.

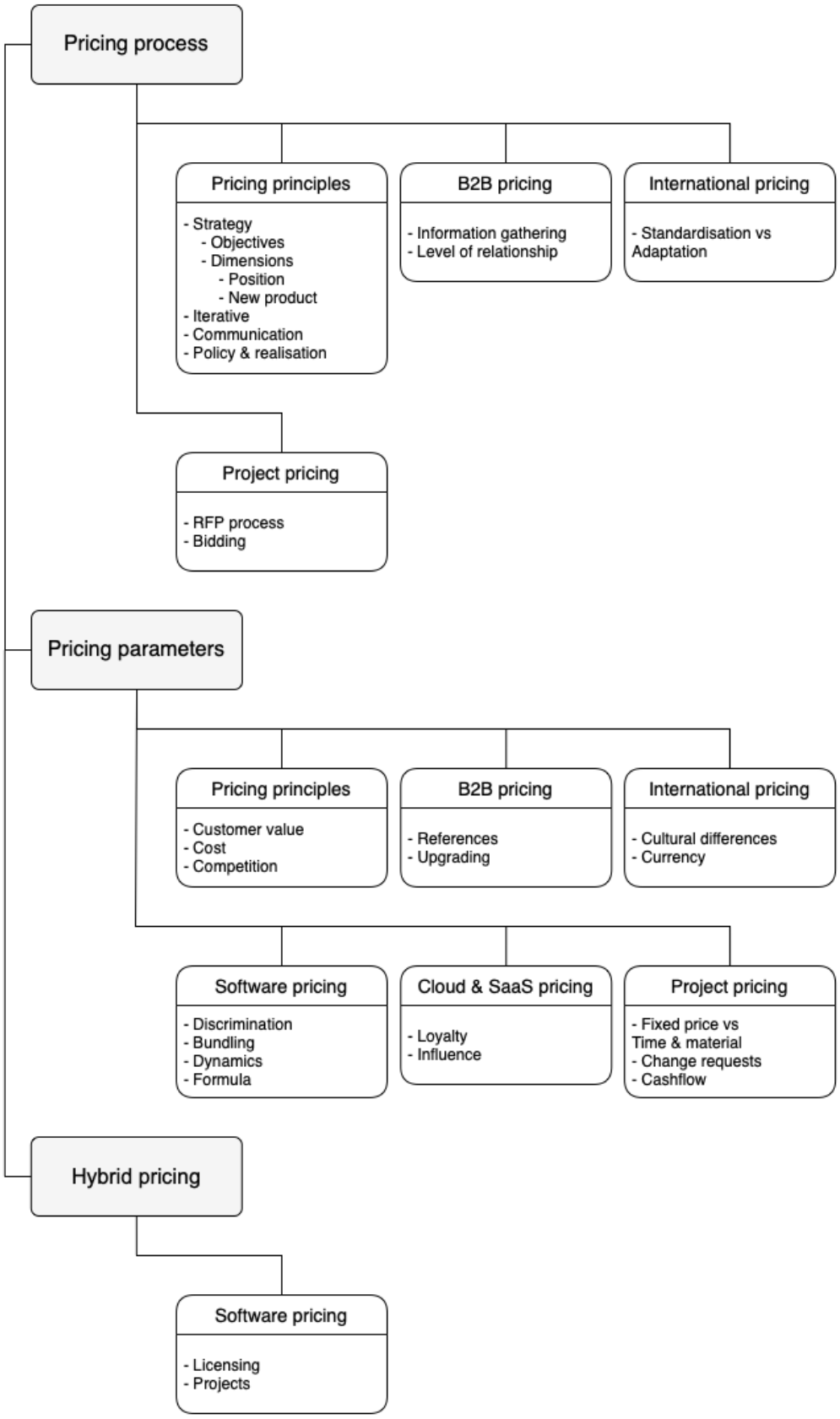

Figure 7 Summarising framework

The process behind pricing answers well to how pricing should be performed. Many of the pricing principles from the theory describe a process. The pricing wheel started from deciding on the strategic role of pricing (Shipley & Jobber 2001). The underlining principles of the pricing pyramid answered strategic questions as well (Noble & Gruca 1999). Therefore, the strategy aspect is the first point of the framework and a good starting point for the process. The strategy directs many of the parameters, in the end, making it particularly important for the process. The strategy point also combines questions like objectives and dimensions. Profits are a common objective (Noble & Gruca 1999; Shipley & Jobber 2001), but Shipley and Jobber (2001) introduce many others too. Dimensions, for example, refer to how the product is positioned in the market or how a new product is introduced pricing wise to the market (Shipley & Jobber 2001).

The iterative approach is highlighted in the principal pricing theories (Shipley & Jobber 2001; Nagle et al. 2016) but also in the SaaS pricing framework by Baur et al. (2015). They emphasise that iterative pricing is vital in gaining loyalty from customers. In practice, this means that the pricing process is never-ending. Communicating the price and value to the customer is a key step stressed by many (Baur et al. 2015; Töytäri & Rajala 2015; Nagle et al. 2016). It's even more important when dealing in an international setting where the different social and cultural aspects need to be considered (Morrison 2006). Pricing policies determine how well the set prices can be realised. These are minor aspects of the process itself, for example, training or discounts, but making a significant difference. (Hinterhuber & Liozu 2012; Liozu 2015; Nagle et al. 2016)

The B2B category adds to the process a step related to the parameters and how they are assessed. Information gathering, especially of customers and competition, is difficult and requires a considerable effort or leads to challenges applying certain methods (Avlonitis & Indounas 2005; Roll 2009; Guerreiro & Amaral 2018). The relationship in the B2B markets can be complex. It can grow from just providing a service to a joint integration to co-create value. (Helander & Möller 2008, pp. 3–4; Macdonald et al. 2016) The needs, required effort and resources depend on the level of the relationship. Therefore, it also must be reflected in the price.

International pricing creates the question of standardisation versus adaptation (e.g. Marsh 2000), which affects the pricing process. The question is should the pricing be common for all markets or adapted for each separately. When adapting to a new market, strategy, 3Cs of pricing and environmental constraints need to be considered (Czinkota et al. 2011, pp. 505–509).

Lastly, project pricing has a couple of points regarding the pricing process. An RFP can determine most of the aspects of a pricing process. It can make it more difficult and complex for the vendor by requiring commitment to various details in a short timeframe. (Paech et al. 2012; Chu et al. 2020) Bidding can also be challenging in the software business. The buyer evaluates the bids with various factors of which the price is one of the main ones. The bidding often requires judgement calls from the vendor on several elements.

The pricing parameters answer how pricing is performed from a different angle. It focuses on the factors that affect the selected pricing models and the price itself. The three Cs of pricing are fundamental concepts in pricing (e.g. Ōmae 1982; Mohr et al. 2005; Hinterhuber & Liozu 2012). They are a part of almost every pricing model (e.g. Shipley & Jobber 2001; Lehmann & Buxmann 2009; Laatikainen et al. 2013; Baur et al. 2015). Hence, it's clear that they are one of the most significant contributors to pricing. The general view is that the customer value should be the most impactful parameter of the three (Liozu 2015; Guerreiro & Amaral 2018).

References can be immensely beneficial for a B2B company (Jalkala 2009; Helm & Salminen 2010). The gained value can be reflected in the price. Potential upgrading of the contract or service can be factored in as well. Typically, an existing client upgrading is remarkably profitable for the company. Especially when the sales process requires lots of effort. Cultural differences and currency risk should affect the final price when they are present (e.g. Morrison 2006; Mühlbacher et al. 2006, pp. 659–693).

Software pricing has its additional parameters too. Discrimination between customers in pricing is typical for software providers. Similarly, bundling the products or services and dynamic pricing practices are commonly used. In addition, there often are different pricing formulas to pick from in the software business, e.g., unit price or fixed price. All four are derived from the pricing strategy and directly impact the price. (Lehmann & Buxmann 2009; Laatikainen et al. 2013) Typical cloud and SaaS pricing concentrates on customer loyalty. Baur et al. (2015) highlight that flexible pricing can increase customer loyalty, which is essential for SaaS providers. Laatikainen et al. (2013) list the influence as one of the factors in cloud pricing. It makes a huge difference in the whole pricing model and process depending on whether the vendor can have a pricelist, whether the price results from lengthy negotiations, or whether the customer can dictate it.

Lastly, the theory on project pricing identifies two major lines of thought: fixed pricing and time & material pricing. There are modifications and hybrid solutions of the two, but regardless, the choice's impact affects the pricing model of the project. (Gopal et al.

2003) Change requests can bring additional work and complexity to the case, and therefore, they need to be adequately managed. The risks of the CRs need to be reflected in the price for the project to be successful. (Ali & Lai 2016; Pambudi et al. 2020) The cashflow of the project bears some risks as well. In long projects, the cash flow becomes increasingly important and will also affect pricing. (Villafiorita 2014)

Hybrid pricing isn't reflected in the reviewed theory as well as the first two themes. Lehmann and Buxmann (2009) mentioned that a combination of single and reoccurring payments is used in software pricing. Kittlaus and Clouch (2009, pp. 130–137) stated that reoccurring payments are the preferred option, but single payments are still valid in many situations. The reoccurring payments are often named subscription or license fee (Laatikainen et al. 2013; Villafiorita 2014). Single payments are often linked to software projects (Gopal et al. 2003).

3. METHODOLOGY

This thesis is a holistic case study performed as multimethod research. In industrial marketing research, case studies are the most popular approach due to the often complex structures of the case context. They usually provide a great deal of qualitative data offering deep insights into the phenomena and context. (Easton 2010) The research process of this thesis is displayed in the following figure 8.

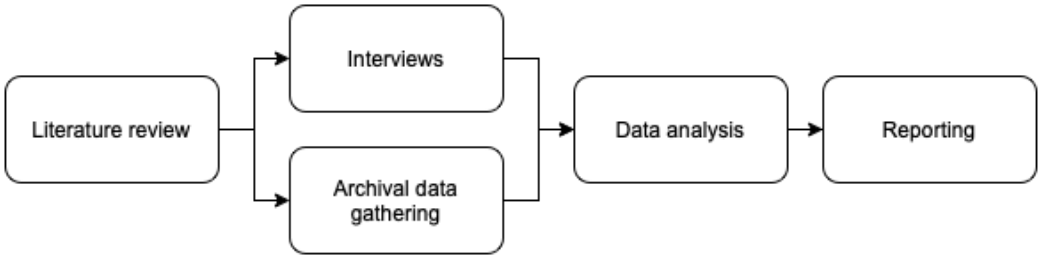

Figure 8 Research process

The research process began in January 2022 with a literature review. Whilst reviewing and learning from the literature, the theory chapter of the report was written simultaneously. This first step was the most time-consuming, but it gave the necessary prerequisites to carry out the remaining steps. Next, data gathering was performed by conducting interviews and gaining access to the archival data regarding the case. Interviews were held during the first weeks of April 2022, and the archival data was received during the same time. Data analysis of the data from both sources took the rest of April. Partly overlapping, the reporting of the research began at the end of April and was carried out during May. Finally, the paper was ready by the start of June 2022.

The remainder of the chapter is as follows. The background of this case is illuminated in the following subchapter 3.1. Comprehending the context is essential to a case study (Saunders et al. 2019, pp. 196–199). After which, the chosen research methods are introduced and discussed. Lastly, in the final subchapter, the data gathering and analysis process are presented in detail.

3.1 The background of the case

The customer of the case is a significant player in the financial market that needed financial payment testing and customer onboarding. After a lengthy procurement process, an external fintech, the case company, provided a payment simulator. The

simulator and its pricing form the case of this thesis. The size difference between the case customer and the case company is noteworthy. Further information regarding the case customer and details of the provided service is considered sensitive and thus not disclosed in this thesis.

The case project started with initial contact with the client representative. The client had a specific need for which the case company could provide a solution. The customer created a public procurement process, including a request for information (RFI) and a request for proposal (RFP) from the potential suppliers. The case company won the procurement process and was selected to be the vendor. The project continued with the development and configuration of the service and eventually the usage and support. The pricing decisions happened during the initial phase of the project.

A handful of key players from the case company staff participated in the project's initial phase, namely the sales phase. The then CEO made first contact with the customer. He played a significant role in the pricing discussions along with the then head of service. They both accounted for the majority of the pricing negotiations, internally and externally. Additionally, the head of business development and the COO supported the discussions with their views and input. Essentially, these four conducted the pricing process from start to finish.

The simulator in this project is a step away from the SaaS model due to a full on-premises installation making the whole software delivery model different from a cloud solution typical of SaaS. On the one hand, the service will be kept up to date consistently with the cloud environments, and the pricing will follow the conventional hybrid pricing of the case company on a high level. On the other hand, the security of the on-premises environment is strong, making the installation, configuration, and maintenance take significantly more effort than on the cloud instances run by the case company itself. The simulator is a new service developed by the case company, and this is the first customer case. Consequently, the simulator has been fitted to the customer's needs requiring effort from the development team. The on-premises aspect has been a first for the company and the development team, too, to its extent. These points add to the project's complexity, the pricing behind it and thus the case itself.

The researcher has worked for the case company for four years. Part-time from the beginning and full-time for a couple of years. The work has been mainly customer-facing implementation and configuration work, including some account- and project management activities. For the case project, the researcher has been involved in the

customer-facing configuration work from the start of the project. However, the researcher did not have any part in the pre-project activities, including the pricing of the project.

3.2 Research methods

It is common for dissertations in the business context to refer to Saunders et al. (2019, pp. 128–130) model called the research onion. The model encapsulates well the methodology choices one must make to carry out a study. Starting from the outside layers, the model includes philosophy, approach to theory development, methodological choice, strategy, time horizon, and techniques and procedures. The point of the outer layers is to provide the reasoning behind the choices made towards the middle of the model. That's why it starts as far as the philosophy behind the research and the researcher. (Saunders et al. 2019, pp. 128–130) The methodological choices of this study are displayed in the following figure 9.

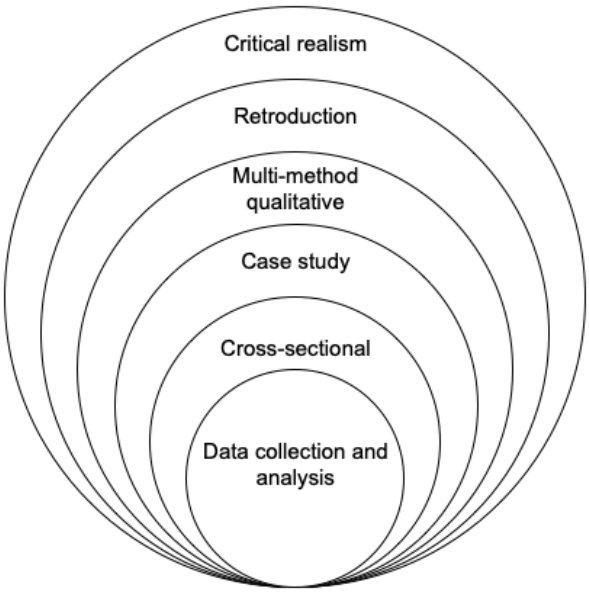

Figure 9 Research onion (Adapted from Saunders et al. 2019, pp. 128–130)

Determining the philosophy for business research can be difficult since it originated from multiple different disciplines, including natural sciences, applied sciences, and social sciences, which all have their approaches to research philosophy (Saunders et al. 2019, pp. 130–132). Pricing as a topic is no exception to this. It could be seen as strictly numbers and nothing more, or it can be seen as the summary of the perspectives of those involved in the process. The former approach is closer to a positivist philosophy, while the latter is almost an interpretivism philosophy. The selected philosophy for this paper is a middle ground between the two earlier mentioned. It is called critical realism.

This philosophy is argued to be ideal for case studies (Easton 2010). Its ontology can be defined in 3 layers, the empirical, the actual, and the real. The empirical layer contains the observations of the empirical events. The real layer encompasses the external and independent reality. The difference between the two is that the observer can interpret the real world subjectively. The actual layer contains all the things spawned from the real, which could be observed. The epistemological ideas are derived from ontology. There is an underlying truth, but it can't fully be explained with knowledge due to the social constructs that often give a subjective aspect to knowledge. In research, the goal is to be as objective as possible and recognise the remaining biases. (Easton 2010; Saunders et al. 2019, pp. 144–148)

There are a few approaches to theory development. The most common ones are deduction and induction. Saunders et al. (2019, pp. 152–156) recognise a third approach called abduction, which is a combination of the two where the research moves back and forth between theory and data. Some say that abduction is interchangeable with an approach called retroduction (Flick 2018, pp. 53–56). However, Easton's (2010) description of retroduction differs slightly from the main logic of abduction, which Flick (2018, pp. 53–56) considers discovering new concepts by finding surprising phenomena. He describes retroduction as moving backwards in the typical process of theory development by asking, "What must be true to make this even possible?" Easton (2010) continues that retroduction is a fitting theory development approach for case studies. Critical realism combined with the retroductive approach can draw together different insights of the same phenomenon and unite the aspects of traditional economic and social thought (Downward & Mearman 2006). Therefore, retroduction is selected as the approach for this study, despite not being a direct option under Saunders et al. (2019, pp. 128–130) research onion model.

The thesis is carried out as a multimethod qualitative study. The availability of information regarding the case affects the choice the most. There are two main sources of information, interviews of the people involved in the case and documentation gathered during the case. In qualitative research, words, pictures, and other non-numeric data are the source of meanings. A multi-method study requires more than one source of qualitative data. Qualitative design is generally used in situations with a socially constructed context and a subjective phenomenon. (Saunders et al. 2019, pp. 179–180)

The selection of the research strategy, namely a holistic case study, is mainly directed by the research question. The objective of the study is to be explanatory in the sense that Saunders et al. (2019, pp. 186–188) describes it. Yin (2018, pp. 14–16) considers that the essence of case studies is to illuminate a set of decisions. He continues that

typically it's used when the boundaries between the phenomenon and context are not evident. There are five commonly known justifications for a single case study over a multiple case study: critical, unusual, common, revelatory, or longitudinal (Yin 2018, pp. 47–50; Saunders et al. 2019, pp. 196–199). This thesis is a combination of revelatory and unusual. It can be considered revelatory in the sense that there is a need for pricing case studies in different contexts that this case represents, including B2B, SaaS, and fintech. It is also an unusual case for the case company, as it's the first case where it has priced this solution. Hence, the case provides insight that can be helpful in the next pricing cases for the solution.

The case study is cross-sectional, meaning that it is a snapshot of the phenomenon at a certain given time (Saunders et al. 2019, p. 212). It suits well the research question of figuring out how the case was priced. Even though the pricing process didn't happen in a singular moment in time, the research is not interested in the change or development of the process, which is typical for longitudinal studies based on Saunders et al. (2019, p. 212), but rather to discover the process and variables itself.

The last inner layer of the research onion will be covered in chapter 3.3, where the data gathering and analysis process is described. In short, as a multimethod qualitative study, there are two sources of information: interviews and archival data.

Specific measurements are developed to ensure the quality of research, especially for qualitative studies. It is important to address the aspects of the research quality to prove the legitimacy and creditability of the study. Measures gathered by Saunders et al. (2019, pp. 216–220) are interpreted in the following table 2.

Table 2 Research quality measures (Adapted from Saunders et al. 2019, pp. 216–220)

Measure	Description	Techniques used
Dependability	Reliable and comperhendable recording of the research focus.	- Recording change
Creditability	Representing the realities of the participants as they were intented.	- Building trust - Refining the analysis
Transferability	Full descriptions of the context and metadata of the research.	- Provide descriptions
Authenticity	Promoting all the differenct views fairly and objectively.	- Leaving nothing out
Validation	Verification of the research data and analysis.	- Triangulation - Participant validation
Researcher role	Position as an internal researcher has it's advantages but problems as well.	- Describing the relationship

In this thesis, dependability is achieved by recording the focus of the research as well as possible from the start and then continuing to record the changes that might occur during the analysis phase. The aim is to conduct the research as consistently as possible across the different steps. Creditability is attained by having the participants' trust and being worthy of it, which is then reflected in their answers. In addition, refining the analysis to produce the best possible explanation of the phenomenon. Transferability is accomplished by describing the research questions, design, context, findings, and interpretations of the research as well as possible. Authenticity is respected by fairly promoting all views and analysis results, despite differing from the expected outcome. Validation is covered via two approaches: triangulation and participant validation. Former involves verifying the data gathered from one source with another source. Latter contains verification of the drawn results from the participants after the analysis. The researcher's role is described in detail for the researcher to acknowledge the problems it may entail during the research process and for the readers to make their remarks on the study's objectivity. (Saunders et al. 2019, pp. 216–220)

Yin's (2018, pp. 42–47) perspective on evaluating case study research includes similar points to the above. He sees four main tests to be thought through: construct validity, internal validity, external validity, and reliability. Construct validity is the same as the validation aspect from table 2. Internal validity proves that the relationships found are causal rather than spurious. This can be addressed in the data analysis phase of the research by making sure all rival explanations are considered. External validity refers to the generalisation of the findings. This can be achieved in a single case study by linking the case to theory and having well-thought research questions for the study. Finally, the objective of reliability is to make sure that by following the same procedures, one can come to the same findings and conclusions. (Yin 2018, pp. 42–47)

3.3 Data gathering and analysis

The research has two sources of information: interviews and archival data. Both Yin (2018, pp. 111–125) and Saunders et al. (2019, pp. 196–199) assert that both of these sources are standard for case study research. In this paper, archival data refers to documentation captured during and as a part of the case by the case company and the customer.

To be able to gather the data for the empirical part of the research, the analysis stage needs to be thought through beforehand. Yin (2018, pp. 165–175) introduces four general strategies for data analysing in case study research: theoretical propositions, working from the ground up, case description, and plausible rival explanations. As this

study follows a retroduction approach, the strategy for analysis is a combination of theoretical propositions and working from the ground up. The main goal of the analysis is to explain how the pricing was performed; thus, comparing it to the earlier theory and providing new insights are both desirable outcomes. Yin (2018, pp. 175–199) continues to introduce five analytic techniques: pattern matching, explanation building, time-series analysis, logic models, and cross-case synthesis. For this study, the explanation building techniques suit the best due to the explanatory nature and retroductive approach. Explanation building is an iterative subcase of pattern matching where the case data is compared to patterns from literature, and the patterns are iterated to form the best explanation of the phenomenon.

Kvale (2007, pp. 34–50) gathers seven stages of interview inquiry which, when well-planned beforehand, helps to conduct the interviews and the analysis phase in a streamlined manner. The first stage is thematising, which includes formulating the purpose of the study and the themes investigated. Likewise, Saunders et al. (2019, pp. 451–455) suggest gathering the themes of the study and interviews beforehand. They add that background knowledge of the topic and the case should also be familiarised. The second stage is designing the study taking into consideration all the stages. This stage must be completed before continuing to the third stage, interviewing. The details of this stage are presented in the following sections. The fourth stage is transcribing. It refers to the process of preparing the interview material for analysis. The fifth stage is the analysis itself, which is the key to the whole process. Deciding the analysis methods is important as it might affect the interview stage. This is discussed in more detail later in this chapter. The sixth stage is verifying. This step is important for the quality of the research. The quality needs to be checked with the selected measures suitable for the research design. Yin (2018, pp. 199–201) adds that high-quality case study research ensures that all data is captured and analysed, all possible explanations are investigated, and the focus is maintained. The seventh and last stage is reporting. Communicating the findings in a form that lives up to scientific criteria is central to the study's outcome.

In case studies, the preferred interview method is unstructured or semi-structured due to the nature of the research (Yin 2018, pp. 118–121). It is suggested that a list of the themes to be covered during the interview is gathered to help the interviewer. Additionally, template questions can be written down too to help in the situation. However, the interview should flow naturally and emphasise the interviewee’s story. The opening questions should be clear, short, and open for the interviewee to have the opportunity to provide their view freely. Probing- or specific questions can be used as secondary questions to go deeper into the conversation on a certain topic. Confirming

the interviewer's understanding of the interviewee provides valuable verification of the understanding and helps when analysing the data. The interview should be started with a briefing and end with a debriefing. The briefing should include information regarding the study, address the interviewee's rights, and confirm the permission to record the interview. The debriefing should include a high-level recap of the points discussed and a final open question to allow adding or modifying any part of the interview. (Kvale 2007, pp. 52–66; Saunders et al. 2019, pp. 455–464) Yin (2018, pp. 118–121) add to this by pointing out the difference between the theoretical themes and the actual questions asked. The line of inquiry must be kept in mind; however, the questions need to be verbalised in a fluent manner. Kvale (2007, pp. 52–66) further adds to this point by remarking that the wording of the questions determines the answer's style. In addition, he emphasises that good questions contribute both thematically and dynamically, or in other words, capture knowledge and take the conversation forward naturally.

There are multiple modes to perform the analysis of the interview data. Kvale (2007, pp. 102–119) categorises them by the focus point, which is either meaning or language. On top of these two categories with their modes, he mentions bricolage and theoretical reading. Bricolage is a mode of interview analysis where the researcher uses multiple different modes in combination. For this study, a bricolage approach combining meaning condensation and narrative analysis is seen to fit the best. Kvale (2007, pp. 102–119) continues that the selection of the analysis mode affects the interview itself. The meaning condensation highlights the need to obtain detailed and nuanced descriptions of the phenomenon, and the narrative analysis emphasises the spontaneous stories and episodes of the interviewee. Meaning condensation is an analysis mode where at first, meaning units are highlighted from the transcripts, after which they are linked with themes. These themes are gathered in the end to form a descriptive statement. The narrative analysis mode is about obtaining stories from the interviews and inturbidate those in a meaningful way. A single coherent story can be constructed from scattered episodes through all the interviews.

The secondary data is mainly used for triangulation of the findings from the primary data, the interviews. The goal is to increase the research quality by validating the data, when possible, with an additional source. Usage of document secondary data is typical for case studies (Saunders et al. 2019, pp. 345–348). The documentation is gathered from the case company's internal archives and the customer relationship management (CRM) system.

The research contained four main interviews which are gathered in the following table 3. Before the first interview, a practice interview was performed with the current head of

sales, who joined the company later and thus wasn't involved with the case itself. This practice interview helped to formalise the interview process and provided insights on where to focus during the interviews. As an expert on the topic, she also provided comments on the interview's themes. The main interviews were planned to take approximately an hour and were held via Teams video call. Only the topic of the interview and the case were shared beforehand. The interviews were recorded with permission from the interviewees for transcription purposes. The research questions, interview themes, and sample questions are written down in appendix A. The appendix supported the semi-structured interviews and was a handy alignment tool. The interviews were held in the primary language of the interviewee to prevent any difficulties in translation.

Table 3 Interviews

#	Interviewee's role during the case	Duration (min)	Location	Language of interview
1	CEO	30	Teams	Finnish
2	Head of Service	54	Teams	English
3	COO	64	Teams	Finnish
4	Head of business development	44	Teams	English

The four interviewees covered all the participants involved with the case, which explains the low number of interviews. The sample covered the whole population. The first interview of the chief executive officer (CEO) was cut short in time due to the time limitations of the interviewee. Both the interviewer and the interviewee saw that the main themes of the interview were still covered successfully. Thus, a second interview wasn't seen as necessary. The second interview with the then head of service went according to plan. As did the third interview with the chief operating officer (COO) and the fourth interview with the head of business development.

Transcribing was done manually for the Finnish interviews and with the help of online transcribing tools for the English interviews. Tools were used to speed up the process. The interviews were transcribed almost word-to-word from the conversations. Some filler words specific to verbal communication were removed to increase the readability.

At this stage, the secondary data was gathered based on comments from the interviews. Access to the sources wasn't a problem as the researcher has been working for the company for some time, and the company has an open culture of information sharing. Two sources of documentation were suggested during the interviews, the CRM system and the document archive service the company uses. Initial email conversations of the sales phase were recorded in the CRM tool. The archives contained the official documented responses to the RFI and RFP, along with notes taken during internal meetings and planning calls.

The analysis of the interviews was performed from the transcript by highlighting meaning units with a different colour depending on which theme they were linked to. The meaning units were then gathered by theme per interview and were shared with the interviewee via email to perform participant validation. Verifying the suppositions derived from the interviews increases the quality of the data and analysis. Next, a narrative of the pricing process was compiled based on all the interviews and the documentation from secondary sources. The narrative analysis mode fits well to break down the process. Then the parameters of pricing and all points regarding the hybrid pricing were gathered using the meaning condensation analysis mode. This mode was also seen as suitable for gathering the different arguments made in the interviews regarding the two themes. The results of the analysis are collected in chapter 4.

After transcribing the gathered data and analysing the main themes and points, the explanation building techniques were used to compare the case to the theory collected in chapter 2. This analysis is described in detail in chapter 5. To help this process, a summarising framework (see chapter 2.4) from the reviewed literature was formed. Then this framework is used to compare the empirical findings from the results. Further discussion of the results was also conducted within the second stage of the analysis. Final conclusions are finally highlighted in the 6th chapter of the thesis.

4. RESULTS

Analysed results gathered from the interviews and secondary sources are presented under three main themes that try to answer the research questions. These are pricing processes, pricing parameters, and hybrid pricing. The connections of the results with the literature and theory are discussed in a separate following chapter, as per the selected methodology for the research and the analysis.

The case and the pricing process are described in detail in the following subchapter 4.1. After which, in subchapter 4.2, the pricing parameters are disclosed and commented upon. Subchapter 4.3 covers the hybrid pricing model of the case company and how it was applied in this case.

4.1 Pricing processes

The case company tracked the markets and found out that the case customer was starting a venture which might entail an opportunity for the case company to be a part of and provide a solution. The case project started from initial contacts during a couple of industry events. The conversation continued via email and a couple of meetings in person. There was a need for a simulator from the client side; thus, a demo was held to demonstrate the solution's capabilities shortly after. The customer was simultaneously preparing an official procurement process. It was clear at the start that the customer would be a strategic move for the case company. Because it would be the first customer for a new service and since it was a significant actor in the market.

The first step of the official procurement process was an RFI. At this stage, it became clear that there was competition, and thus, communication was limited to prevent any competitive advantages among the vendors. The RFI contained questions mainly regarding the solution but also the licensing options. Based on the actual RFI documentation, the case company answered that the fee is determined by which software modules are in use, the number of users and how many payment products must be supported. This isn’t the complete list of considered parameters; see the following subchapter 4.2. The RFI was a success, and the case company was invited to the next phase, the RFP process.

The RFP listed out requirements from the customer, and the vendors needed to answer how these requirements were met. In addition to the solution related questions, it contained a section regarding pricing. The section dictated the pricing method almost

wholly. It was split into four parts: implementation charge, annual license charges, other costs, and daily rates for additional work. The sections and the subtopics were given weights, which formed a quantitative way to compare vendors. The implementation charges were optionally further divided into up to three milestones. The last milestone was the go-live, and 40% of the total implementation costs were mandatory to assign. The annual charges contained the license itself and an optional separate support and maintenance charge. All fees were fixed, and additional clauses weren't allowed, or they were to be included in the "other costs" section. This presented the need to simplify the existing pricing model to match the requirements of the case customer. Luckily the existing pricing model was close; however, the scalability aspects couldn't be added. Typically, the reoccurring revenue is tied to the number of users or the transaction volume. The process of deciding the final prices for the RFP required significant effort. It virtually accounted for the whole pricing process of the case since it was the final proposal, and there were no pricing negotiations after the RFP.

The process of deciding the final price levels for the RFP started with estimating three different components: our own cost of delivery, the customer's willingness to pay, and competitors' price levels. Estimating our costs for the configuration part was straightforward for the team. The case company is accustomed to doing so for all of its projects. This process involves people from the services team, who do the configuration work in the end. However, since this project incorporated a new type of service, namely the on-premises simulator, the project had plenty of work for which the estimation was difficult. Lots of unknowns made some parts of the estimation impossible.

> *"Then you take the estimate of the effort and carefully put it aside and completely ignore it. You basically start to question what it will take to get the deal."* — Head of business development

The effort estimation is typically tied to the one-off implementation charge. As the quote above points out, the case company was ready to sacrifice some of the implementation charges to win the deal. The most important reason for this was that the customer was a significant actor in the industry. Hence the deal had substantial reference value for the case company. In addition, the new service was seen as a strategic move for the company. Neither of the reasons can be measured in direct profit. Therefore, the final decision is based on a judgment call. The aim was to reduce the implementation price in areas where it was seen as beneficial based on the weightings and cost estimations. The team was confident that they could under-price the competition.

> *"… this tactical task of figuring out our competition and guess how they price themselves. … We figured that their strategy is to be a premium vendor, and therefore we need to win this case with the price."* — Chief executive officer

The license charge was more challenging to compare with the competition due to the lack of information on the price levels. A prediction was made by searching the internet, contacting people at events, and based on a gathered history of price information from previous prospects. The pricing information publicly available for similar projects is extremely limited. Thus, not much can be found on the internet. Finding the right contacts from a company or an industry event that could help in pricing is likewise difficult. The case company's own history of similar projects during that time was also limited due to the project being one of the firsts for the new simulator service. In the end, the estimated price levels of the competition were lower than the actual levels, hence making the license price significantly lower than the competitive bids. This successfully followed the strategy of underpricing. However, there could have been room to ask more and still be priced notably under the competition.

> *"This one [willingness to pay], indeed, was very, very hard to judge. And I think we probably got it wrong."* — Head of service

In this case, the procurement process was transparent and open. There was no negotiation of the pricing after the RFP was submitted. This made the pricing process a bit simpler. However, the customer's willingness to pay was completely unknown, which added to the difficulty of deciding the final price level for the license charge. The history of previous projects discloses the competition's pricing levels, but it can also be used to evaluate the customer's willingness to pay. In the end, there was a hunch of the client's desired level, and the price was set well below it. In hindsight, the willingness to pay was probably higher than the final bid.

> *"We have never gotten to the place where customers will tell us the value we provide. In theory, we could calculate an ROI [return on investment], but then there are these intangible values that can't be measured."* — Chief operating officer

The intangible values are a large portion of the customer value provided by the service, however, as they are not measurable, it is difficult to firstly estimate and then articulate the value to the potential customers. For this case, these needed to be estimated without any previous experience of the new service in actual use. After the RFP process, a customised demo was held. Demos are a typical way for the case company to show the value provided for the customer. Since the demo was customised for the case,

preparation took a significant effort. It was paid off in the end when the case company was selected to be the vendor. The contracting process didn't touch pricing as it was already agreed upon in the RFP. Only the scope and timings of the project could be negotiated along with the project. Due to technical contracting purposes, the customer wanted to use a provider in the middle, which didn't influence the agreed pricing.

The case company has a typical pricing process and methodology, which they would follow in a normal situation. However, like in this case, they are willing to deviate from those if the project seems to be worth it. This made the pricing process for the case a bit random and unstructured at times. This was also due to the project being an entirely new type and the need for adaptation of the pricing model. The process involved many internal discussions on the various items. In the end, though, the management made the final call to set the price at a certain level based on the given parameters. These are covered in more detail in the following subchapter. The process can be noted successful, since the case company won the contract, and the interviewees would not make changes to it in hindsight.

4.2 Pricing parameters

A long list of parameters affected the pricing of the case. Some had a larger impact, and some only had a minor. Regardless, all of them are noteworthy and listed in the following paragraphs. Moreover, some parameters affected the price itself, and others influenced the pricing method, scheme, or tactics.

The **competition** was one of the most markable parameters. Even though lack of information made the judgement difficult, the competition was seen as one of the major obstacles to getting the deal. This perception was mainly due to the RFP process and the decision method that the customer followed to pick the vendor. The process indicated that the customer had a real need, and therefore the main challenge for the case company was to get the customer to pick them. The pricing strategy was to price less than the competition. This was to compensate for other possible aspects where the competition was estimated to be better. The main sources of information regarding the competition were publicly available sources of similar cases, the case company's own gathered history of cases where similar rivalry was present, and industry contacts who might have insights or expertise on the matter.

> *"Then the license cost …the key determinant was competition. …we didn't have any clue on what [price] level the competition was."* — Chief executive officer

The **cost estimations** for the project guided the pricing mostly in ensuring how well the project fees would cover the actual implementation costs. As stated in the previous chapter, 4.1, the estimation was easier for the configuration part, which the case company was used to, but challenging for the installation and development part, which was new for the company. To clarify, the development of the service itself was not considered to be included in the implementation charge as it is an “off-the-shelf” service and thus was covered in the licensing fee. However, the on-premises installation and development support during the project required a significant effort that differs from a typical customer case. The cost estimations were used as a reference point, but they didn’t dictate the end price.

> *“We did also analyse the workload and try to understand the implementation cost for us. …But we did approach the deal as a long-term strategic deal. …And so, if we lost money on the implementation, that was okay.”*
> — Head of service

The customer’s **willingness to pay** was another markable parameter that was problematic to estimate. The customers rarely disclose their budgets or other indications regarding their cost estimates as it is not in their interests. In one-to-one sales negotiations, the situation might be different, but in a procurement process where multiple vendors are competing on the same project, such an indication can raise the vendors' prices. Often the willingness to pay doesn’t reflect the real gained value from the service due to intangible benefits. Even if these are recognised, it can be challenging to get a budget for services that provide unmeasurable value. In this case, the customer value couldn’t be the driver for the price due to the competitive situation and the process itself. Nonetheless, in general, the case company’s prices reflect more the value provided than the costs.

> *“We got stuck thinking about the costs over than the value provided to the customer [for the implementation fee].”* — Chief executive officer

The **customer’s procurement process** has practically directed the pricing method for the whole project. This is tied to the customer’s willingness to pay as they wanted to have the total cost fixed for the project and leave no room for price fluctuation for the contract period. Also, the weightings for the pricing provided on the RFP guided the pricing structure even more. The fixed price scheme and the lack of negotiation possibilities needed to be accounted for when conducting a risk analysis regarding the project's pricing. The process, in this case, was clear and transparent, which isn’t taken for

granted. On a general level, understanding the customer's procurement process is seen as vital for accurate pricing.

> *"The more we can understand about that [customers procurement] process, the better it is for us, the more accurate we can price to maximise the revenue for us"* — Head of business development

Based on the previous history of customer cases, some ongoing for over ten years, the case company has gathered that generally, **high operating expenses** are frowned upon. This results in price negotiations relatively fast even if a higher reoccurring fee has been approved in the initial contract. This can occur, for example, when the buyer is different from the operator. Therefore, the case company prefers to keep the license cost at a decent level from the start, which they believe is sustainable for the customer and reflects the perceived value. This can help prevent the renegotiations of the price where significant drops in price are common, based on the case company's experience.

> *"We've noticed this in practice. …You must remember that the buyer and the user are from different parts of the organisation. …The price should match the value. It drops quickly if you're too greedy"* — Chief operating officer

The final price must be convincing. Many of the pricing parameters put pressure to decrease the price. However, a low price can be seen as a sign of low quality, hence a discouraging attribute. The case company has noticed and considers this **psychology behind perceived value** based on merely the price. This parameter doesn't contribute to the exact price, but it increases the confidence in price based on value rather than costs.

> *"It's sort of weird reverse psychology that if you don't charge enough, maybe people don't take you seriously. …The art of pricing is creating a perception of value"* — Head of business development

The **size of the customer** affects a couple of aspects of pricing. Firstly, bigger companies are used to purchasing larger projects. Thus as per above, they might timid a vendor with a price point way below what they are used to. Secondly, regardless of the project size, the project complexity almost inevitably increases when dealing with a larger client. Finding the right contract persons to deal with and managing the bureaucracy of dealing with a large corporation adds to the overall complexity. With the additional complexity, also the risk of unexpected complications is higher. In hindsight, plenty of unforeseen things have occurred in this case alone.

> *"The more complexity there is, the higher the price. …The larger the organisation is, the more complex environment it is to work with"* — Chief operating officer

A reputable client acting as a reference for the company can be a massive advantage in future sales negotiations and marketing. The case company has used client references actively in both marketing and sales. In this case, the client was willing to act as a reference, and therefore the case company was ready to give slack on some other aspects of pricing. The **reference value** is realised indirectly, meaning that the provided discount is based on judgment. In this case, the reference value was seen as relatively high compared to the existing clients at the time, thus the case company was keen to close the deal.

> *"That's a commercial risk at that time we were willing to take. Because of the intangibles and it's difficult to measure the value of winning a deal like [case customer]. …you've got the fuzzy bits [reference value] where you get into a judgement situation where it's the CEO that has to say: I think it's good for the company, and we're going to go ahead with this price, we must win this deal."* — Head of business development

This case was unique because it provided **strategic value** for the case company. It represented a new type of service for a new market. Thus, it takes the company strategically forward. Opening a new segment with a new client can lead to difficulties at first, which can be reflected in the pricing. For example, acquiring the first client from a new segment without references can be challenging. This case has shifted the course of the company.

> *"…we knew at the time that this is a very important deal for us that if we could get it and work it through, it was going to be hugely beneficial for the company."* — Head of service

The **length of the contract** directly affects the total license costs and, therefore, the total contract value (TCV). This allows changes in the balance between the license and implementation charges while keeping the TCV the same. Signing a longer deal indicates that the contract and the service are important for the customer, which is a great starting point for a customer relationship.

> *"So, if a client is willing to sign a three-to-five-year deal, you're strategic for them, and that's important. …Those types of clients we tried to build up. It tells about the client. …If they agree to a longer deal, we can reduce the implementation costs."* — Head of service

Often the case company's clients will ask for **additional scope** after the initial project. In this case, it was understood to be likely as well. Signs of additional work in the pipeline indicate a level of commitment from the customer. This option of future income can have a minor effect on the initial pricing. Another similar project started with an organisation close to the case customer. There were hints that they would likely pick the same vendor as the case customer. This would have been a significant deal as well. In the end, the other deal was won by another separate vendor.

> *"They let us assume that the deal [another similar deal] was going our way."*
> — Chief operating officer

Currency risk is present for the case company when the payments need to be done in other currencies than euros. In this case, the client mandated the use of another common currency. The case company is generally willing to take the risk when dealing with mainstream currencies. This risk is reflected in the price, but its weight is marginal. Especially for this case currency, the case company can decrease the risk by paying liabilities directly in the case currency before converting the remaining sum to euros. The case company considered hedging the payments to minimise the risk even more, but the cost of hedging is too much for a company of its size.

> *"Usually, they [clients] prefer you take the risk. What you try to do is increase the prices to account for that risk, but it depends on your size in the market and what you can do. Our experience since then is that we've gained some and lost some."* — Head of service

The **milestones** have an impact on the cash flow. For the case company, a project implementation phase of this size can itself carry out over a year, as it did in this case. Often the license fee will start running after the implementation is done and signed off. Consequently, the project's cash flow can run a significant time on the negative side for the vendor. When the implementation charge is divided into milestones, this helps the project financials on the vendor side. Obviously, both sides want to decrease their risks and minimise the negative cash flow, and thus a compromise is often needed. How the milestones are priced affects the overall price as well. Technically, money promised in the future is worth less than namely the same amount today. This is taken into account for the case company, but the effect is minimal.

> *"Yeah, true, the milestones needed to be considered in the cash flow predictions. …but it didn't have a significant effect on the price itself"* — Chief operating officer

These parameters determined the end price for the case. In general, the main challenge in the pricing was the lack of information. In most cases, the information was concealed from the vendors. Also, this case represented a new type of business for the case company; therefore, some of the parameters were new, and some that the case company was familiar using were used differently.

4.3 Hybrid pricing

The case company's pricing model is divided into implementation and license. The implementation part covers the configuration and setup of the software, which needs to be done for all clients. This is true both in the cloud and on-premises deliveries. The implementation is charged once. However, it can be divided into milestones, and it will be charged separately for new scope and services. The license is charged recurringly. It covers the rights to use the software, updates, maintenance, support, and in most cases access to the cloud instance. The case company uses this hybrid approach with all its clients.

The company goal of balancing implementation and license income is 30% of implementation and 70% of license. The reasoning behind this is that the company prefers licensing income for various reasons touched on later. However, the customers almost always allocate a certain portion of their total budget for the implementation projects. Therefore, only asking for the licensing fee would lead to two undesirable outcomes: it is basically leaving money on the table, making the reoccurring fee higher, which can be a deal-breaker for many potential customers. Therefore, the case company leaves a small portion for the implementation fee.

> *"We are a SaaS-house. We must have reoccurring revenue. …We would practically lose the money if we wouldn't bill the implementation."* — Chief operating officer

Often customers prefer the one-time charge over the reoccurring fees. The case company sees that it's probably due to the history of the software procurement when reoccurring pricing wasn't as widespread. Another possible reason is the option to amortise the cost.

> *"They [customers] understand that a project is a project and there's work assigned to it, of which it is justified to pay for. This is something they can argue with their management. But then there is the opex [operating expenses]. Often the managers who decide on budgets resist these, like in 'why are why paying for software this much, shouldn't it be a minor maintenance fee', which is crazy*

> *because SaaS [a typical SaaS service] is constantly evolving"* — Chief executive officer

Reoccurring revenue has multiple upsides for the case company. Since it's a SaaS company, its valuation significantly prefers reoccurring over one-time revenue. Investors appreciate the steady and predictable cash flow. The case company also respects the cash flow since it prevents the need to fluctuate the expenditure according to the volatile project revenue. As mentioned, the licensing fee covers several activities, many of which otherwise would be charged separately, creating overhead for both parties. If the licensing fee is on a decent level and the length of the contract is long enough, the case company might be willing to sacrifice implementation revenue and even take a hit to close the deal with the client.

> *"Some hate reoccurring revenue, but more and more reoccurring revenue makes an awful lot of sense for both parties because what it does is it means that it is our responsibility to keep things working and nice, and it keeps the product relevant for the client."* — Head of service

The case company would have preferred a higher reoccurring charge in the case project. However, they judged it might be a problem for the customer. The customer unofficially let the case company assume that only a portion of the total charge could be allocated to the licensing fee. Due to the uniqueness of the case and the customer restrictions, the balance between licensing and implementation fees didn't have much weight by itself. The final prices were checked so that they looked sensible together.

> *"The whole question of capex [capital expenditures] versus opex [operating expenses] depends on where the client's sensitivities are. Then within those sensitivities, what sort of budget framework and what sort of budget parameters they have?"* — Head of business development

The hybrid pricing approach is selected by the case company to maximise its revenue. The balance is derived from the customer's sensitivities, company goals and project specifics.

5. DISCUSSION

The previous chapter compiled the empirical analysis from the gathered data. This chapter brings those findings to a discussion with the theory composed in the literature review. The interviews captured well the pricing process, the used parameters, and the case company's view on the hybrid pricing approach. By comparing these to the reviewed literature, conclusions can be made. Firstly, how the case study can bring new aspects to pricing literature. Secondly, how literature can benefit the case company in the pricing of the new service. Thirdly, after the first two points, a general comprehension can be made of the overall state of how well theory and practice meet.

5.1 Empirical findings compared to the framework

The summarising framework from figure 7 is updated in the following figures 10, 11, and 12 to present the differences between the reviewed literature and the empirical findings. The points in the summarising framework that wasn't relevant to the empirical findings are crossed out. An additional category called "Case pricing" is added to present the findings that are new from the reviewed literature point of view. Common topics combining both the empiric case and literature are kept untouched.

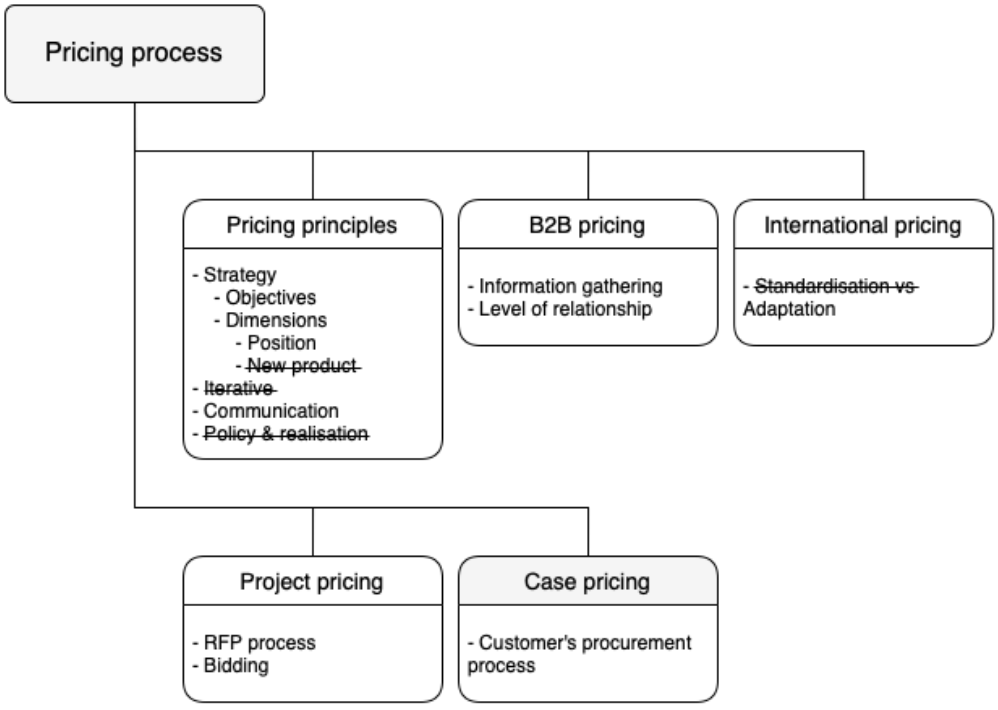

Figure 10 Updated framework – pricing process

The pricing process followed in many ways the described principles in the literature. The project was handled as a distinct process compared to what the case company was used to because it was a new service and potentially a significant customer for the case company. This meant that the pricing strategy was decided separately for this project alone. Typically, in principle pricing models like the pricing wheel (Shipley & Jobber 2001) or the pricing pyramid (Nagle et al. 2016), the pricing strategy is decided for the whole company or a product. In this case, the product's position was considered in the scope of the RFP process, not within the entire market. The strategy was to under-price the competition. Even though the case project is about a new product, the new product pricing methods introduced in the pricing wheel model (Shipley & Jobber 2001) are not applicable since the pricing strategy is only focused on this occurrence. Future sales of the service will most likely not follow the exact same pricing strategy set for this case.

The customer's procurement process primarily determined the pricing process. One of the outcomes of this is that the price was fixed for the length of the contract. This means that the iterative pricing process couldn't be used. The iterativity is highlighted in literature to be vital for customer loyalty (Baur et al. 2015). In this case, however, the customer agrees to a long contract and necessitates a fixed price. Therefore, loyalty isn't as necessary to be gained via pricing flexibility.

The procurement process also ordained communication between the case company and the case customer. The official process didn't allow for any extra communication. The provided value had to be demonstrated before the RFI, in response to the RFI or RFP questions, or afterwards in the last demo. The earlier, the better, since there was a possibility to be dropped on every step of the process. As per theory (Töytäri & Rajala 2015; Nagle et al. 2016), the communication of the true and full value to the customer was challenging in this case. In hindsight, the case company succeeded in the communication of the value.

The policy and realisation aspect didn't concern this case due to the same reason as earlier. The strategy was set for this instance only. In addition, the customer's process didn't include any negotiations or other steps that would affect the realisation of the price and make it differ from the end bid.

The information-gathering was an essential aspect of the process. It significantly affected the parameters and took considerable effort. It was difficult to gain any information regarding the customer's willingness to pay or the competition's price levels. The customer limited their communication with the vendors, and information about similar cases was problematic to find from public sources. The case customer didn't disclose

any information regarding the competition before or during the RFP process. Thus, it was challenging to find out the companies participating in the RFP, let alone their price levels. This is seen as a stepping stone in literature as well (Roll 2009; Guerreiro & Amaral 2018). Contrary to the literature, in this case, the lack of information didn't prevent the case company from using the competition as a parameter, but it made the pricing rely on an estimate and judgement.

In this case, the level of the relationship is close, and the value of the service can only be fully captured after a joint configuration project. The agile methodology followed during the project also leans toward a more integrative process with continuous cooperation to make the service create as much value for the customer as possible (Martin 2020). This implementation work was estimated as well as possible. However, there were new aspects to the process that made the estimation partly lacking. The case company didn't have all the details required for a complete estimate of the effort for the implementation process.

The case company generally has an adaptative approach to international pricing. This is mainly due to the changing customer characteristics, which are also referred to in the literature (Theodosiou & Katsikeas 2001). However, in this case, the adaptivity came naturally anyway. The strategy was aligned to the case separately because it is a new type of business for the case company. The product life cycle is also one of the determinants of the level of standardisation (Theodosiou & Katsikeas 2001). In this case, the business culture isn't so different from what the case company is used to, and therefore not that much thought went into the adaptation analysis. The adaptive strategy might be a necessity in the case company's business, where the customers are large, and projects are significant in relation to the resources of the case company. It worked well in this case since the case company won the contract and there wasn't much that the interviewees would have done differently in hindsight.

The RFP process is typically a part of the pre-negotiation stage (Chu et al. 2020), but in this case, it formed most of the whole pricing process for the case company. It was also the foundation of the customer's procurement process. There were no negotiations regarding pricing at any stage. The end price was determined by the bid that was a part of the RFP response. RFPs and bidding are generally used to decrease the vendors' prices (Jorgensen & Carelius 2004; Chu et al. 2020). Yet, nothing was mentioned about the customer largely affecting the pricing process and used models themselves. This has an enormous effect on the participating vendors as they might need to use completely new pricing practices and adjust their whole strategy to align with the requirements.

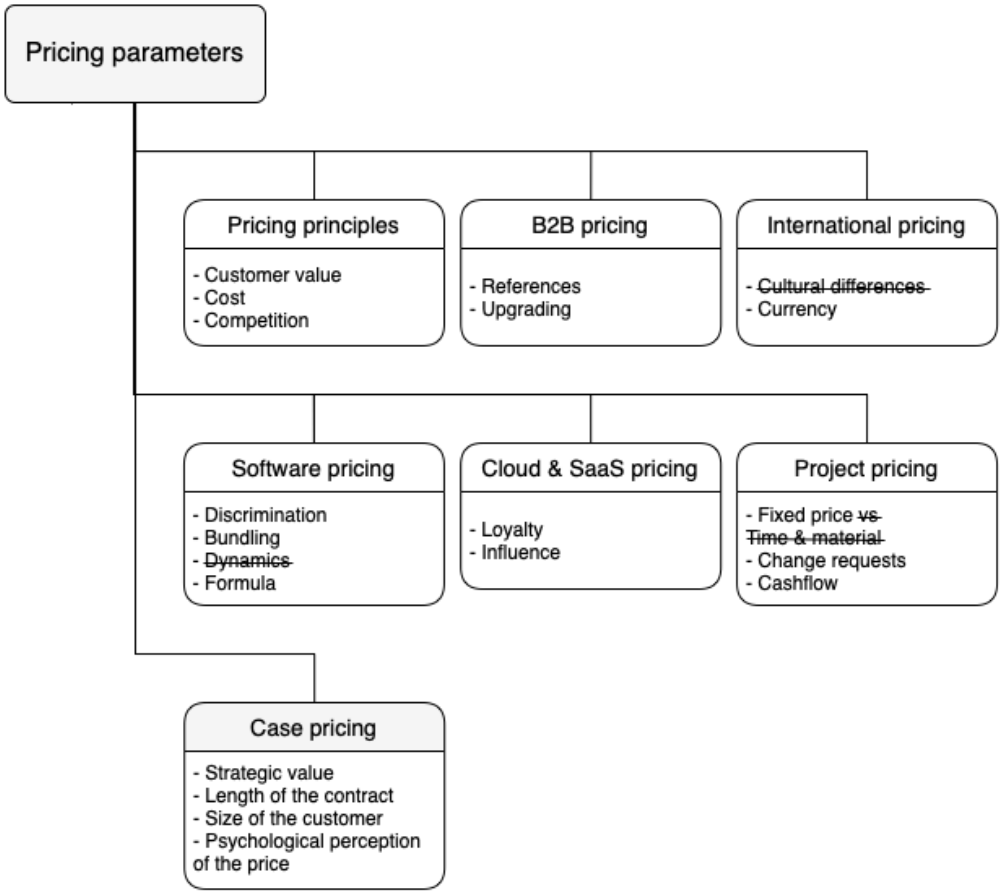

Figure 11 Updated framework – pricing parameters

The three Cs of pricing contributed the most of the pricing parameters in this case. This is aligned with the literature, as it is seen as one of the fundamental models in pricing (e.g. Mohr et al. 2005). The case company uses value-based pricing at its core. The value it provides is often intangible making it impossible to measure. Therefore, the customer's willingness to pay is the focus point. The own costs are used mainly on the implementation fee as a reference point. It often is suggested to be used as the floor for the price (Shipley & Jobber 2001). The approach aligns with the theory. Against the general view, in this case, competition was the most impactful parameter of the three. This was due to the competitive bidding process that made the price one of the largest reviewed parameters in choosing the vendor. Some argue that using only competition-based pricing can affect negatively pricing (Armstrong & Collopy 1996). It should contribute equally as compared to the other two (Indounas 2009). As stated earlier, gaining information regarding the case customer's willingness to pay or the competition's price levels was extremely difficult. The case company had to make judgments based on limited information. This is typical in software bidding processes (Jorgensen & Carelius 2004). The reviewed literature doesn't capture how to overcome the problem.

The reference value of the case customer was central in this case. Jalkala (2009) reported that in complex and innovative B2B markets where the case customer works, references increase the status and provide evidence of skill and expertise. This is especially important for the relatively small case company, where it has been proven to work in the past. The value of the reference had to be estimated with a judgement call, and the reviewed literature doesn't provide tools for evaluating the value. Estimating such an intangible value turned out to be difficult for the case company.

The future potential upgrading and upselling were estimated to likely happen in such a large and complex project. The case company was confident that if the initial project is a success, more could be provided to increase the scope. In agreement with Bolton et al. (2008), the case company sees that upgrades are highly lucrative. This is due to the long sales cycles making the cost of a sale significant. Therefore, all extra billables with existing clients are welcomed, as the overhead is a portion of what a new client would typically require.

Managing the cultural differences came quite naturally since the case company itself is rather international, and there were hardly any large cultural differences between the case customer and the case company. It didn't have any practical effect on the pricing. The currency exchange, however, had an impact. The case company recognised the currency risk as per literature highlighted it (e.g. Mühlbacher et al. 2006, pp. 659–693). The currency risk was taken into account by having a small buffer on the price to compensate for the bearing of the risk. However, hedging was too expensive for the size of the deal. This detail of the hedging activities' price wasn't remarked on in the reviewed literature. It might suit better larger companies with greater deal sizes and leverage on quantitative discounts.

The case company uses the first degree of pricing discrimination for this new service as Lehman and Buxmann (2009) describes it. Each customer is priced individually. This might evolve into a multidimensional approach with aspects of third-degree of discrimination, where the market segment will also have input on the price. The bundling for this case was apparent to the case company. Other services were bundled together alongside the new service. However, the case company's services are often intertwined together, making it natural to bundle some of the services. This is especially true with the case's service. Also, aligned with the SaaS model, the service includes a certain level of support and maintenance (Buxmann et al. 2013, pp. 169–179). The need for support is always evaluated to gain an estimate of the required effort. The support requirements were estimated to be substantial in the case. This was based on the complexity of the case, the fact that the service is new, and the size of the case customer.

As discussed earlier in the chapter, the price and formula were fixed for the duration of the contract. A dynamic pricing approach wasn't possible. The result is simply a fixed price without any scalability options. This requirement came directly from the customer, and the case company couldn't affect the choice. The only way to scale the contract is to introduce more new scope. This additional scope would be introduced with a formal CR. They need to be planned, scheduled, and priced separately. The case company needs to be careful with them since CRs are one of the reasons for project failure (Ali & Lai 2016; Pambudi et al. 2020).

Customer loyalty couldn't be achieved with the methods presented by Baur et al. (2015). They argued that loyalty requires an iterative pricing approach and continuous reassessment of the price. However, the case customer prevented any such approach. The loyalty, in this case, could be perceived in the relatively long contract length which is a sign of commitment and trust. One could argue that customer loyalty is gathered from many aspects, where iterative pricing is just one approach. The reviewed literature didn't cover the topic well enough to discuss it deeper.

The influence of the case customer is apparent, yet it mostly affected the pricing method. The reviewed literature doesn't recognise this kind of massive influence. For the case company, the decision was to either participate with the given rules or leave out of the process. The pricing methods were given within the RFP and there was no room for negotiations. The control on the pricing level itself was by the attempt of decreasing the bids with the bidding competition. This is a typical method used in the software business (Jorgensen & Carelius 2004; Chu et al. 2020). This level of control limits the company's possibilities to strategize with the pricing. It can be beneficial for the case customer, but in some situations, wrong pricing methods can have negative effects on both parties (e.g. Dey et al. 2010).

The implementation charge, also known as the project price, was fixed. Literature highlights the financial risks tied to the approach (Gopal et al. 2003). Many of the success factors, including customer's active participation, agile methods, and benefits management, were present in the case, decreasing the overall risks of the project (Jørgensen et al. 2017). Minor changes in the project scope are a part of the agile methodology, yet larger changes or increases are titled a change request. It was estimated by the case company that there wouldn't be a lot of CRs, at least in the implementation phase, but if the customer appreciates the service, a new scope might be introduced. The CRs that are additional scope would be priced and billed separately. In addition, the implementation charge was split into three milestones, as suggested by

Villafiorita (2014). This would decrease the financial risks of the fixed price approach and make it easier for the case company to agree with the terms.

The empirical case revealed a couple of additional parameters that weren't covered in the reviewed literature. Firstly, the strategic value of the customer has a significant effect on the price and the pricing process. If the customer is impactful enough, the pricing strategy should be individualised. The strategic value is based on tangible and intangible values, and therefore making it a judgment by the company itself. The company's own situation affects the strategic value as well. For example, the case project was about the first customer of the service, making it more important for the case company. The case customer is seen to take the case company forward in its strategy, and hence some allowances were tolerated regarding pricing.

Secondly, the size of the customer has an impact on the price. The case company sees two reasons for this: it affects the willingness to pay and adds to the project's complexity. Based on the case company's view, larger companies tend to be willing to pay more for a service. They have larger budgets, economies of scale, and are used to pay more. The case company has experienced that larger companies create larger overhead for the project. It might become hard to maintain it will drain resources, at least at the beginning of the project, more than a smaller company. This might be a result of the silo effect, where people have more specific expertise and therefore increasing the number of people to be in contact with during the project. Information might become hard to find.

Thirdly, the length of the contract is one key parameter that affects the prices. Simply, the length of the contract increases the TCV which can be considered when setting the price levels. When considering the TCV, the risk of contract termination needs to be taken into account. The TCV can't be directly taken as granted. Nonetheless, there definitely is a difference, for example, when the customer commits to 2 months versus 5 years. Longer commitment can be reflected for instance in the implementation charge.

Lastly, for certain clients, pricing can signal the quality and trustworthiness of the solution and supplier. This can be tied to the size of the customer. Typically, the price needs to be in a certain interval to be taken seriously but not seem overpriced. This perception of value based solely on the price itself can encourage the use of value-based over cost-based pricing. Obviously, other aspects affect the full perception of quality and trustworthiness. For example, previous references, as discussed earlier.

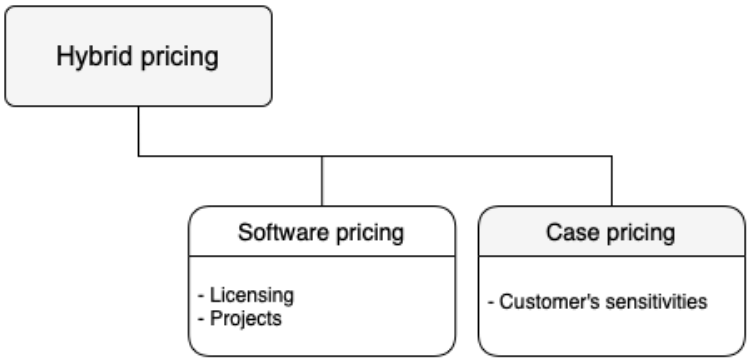

Figure 12 Updated framework – hybrid pricing

A similar hybrid pricing approach to the case study was introduced by Luoma et al. (2012) when describing the enterprise SaaS model. They presented that the model includes a separate entry fee and a reoccurring service fee. In this case, the entry fee was justified with the implementation project, which entails significant effort from the case company. Kittlaus and Clouch (2009, pp. 130–137) stated that reoccurring payments are the preferred option, but single payments are still valid in many situations. The interviewees agreed that the reoccurring payments are preferable for the company due to the valuation and predictability of the cash flow. The board of the case company has set target portions for both revenue types, which the company tries to follow in pricing.

The case company highlighted the customer's budgeting regarding the implementation project in a SaaS service, but the reviewed literature doesn't consider it in-depth. Configuration of the provided service is typical in the B2B scheme (Narayandas 2005) and the software industry (Villafiorita 2014). The case company has observed that the customers are willing to pay for the setup project independently regardless of the reoccurring license charge. Therefore, it is in their interest to price it separately and keep the one-time fee alongside the preferable reoccurring charge.

The case company also sees that it is key to recognise the clients' sensitivities and willingness to pay for both types of payments separately and then maximise the revenue. They argue that the best way to determine the balance between the reoccurring revenue and the one-time revenue is to see them separately at first and only later focus on the details. Subsequently, the two might be balanced based on the length of the contract, and then the sensitivities are essential to consider. This point isn't emphasised in the reviewed literature at any length. Very little was written about hybrid pricing and the balancing of the different revenue types.

6. CONCLUSIONS

This thesis is a case study of a practical pricing case. The goal was to provide an intriguing case study for the academia and help the case company price the new service. The case is about a B2B SaaS solution priced using a hybrid pricing method. It contains a one-time implementation charge and a reoccurring licensing charge. The research questions were the following:

- How is hybrid pricing performed by a B2B SaaS practitioner?
    - What parameters are considered in the pricing?
    - How to balance the upfront project price and the reoccurring price?

The research questions are answered by focusing on three themes within the analysis and results. The literature review also covered these themes, as seen in the summarising framework in chapter 2.4. The main findings include new aspects of pricing discovered from the case, empirical verification for theories from the literature and points for the case company to focus on more derived from the literature.

Overall, the case's pricing process followed the common pricing theories well. Some parts of the models weren't sufficient because the pricing strategy was developed individually for the case. Others, like the iterative pricing approach, were not applicable due to the customer's strict requirements. A noteworthy finding is that a sizeable and strategic customer has not only power over the price itself but also the whole pricing process and used methods. Gathering information to support the decision making was one of the activities that took the most effort. For many of the parameters, information wasn't available. The theory should focus on providing better solutions for this challenge. The RFP process structured the customer's procurement and, as a result, the pricing process for the case company. The contribution of the RFP to the case was more significant than the literature suggested. The case company uses an adaptive strategy in pricing, and it seems to be the right option since it was natural and worked well in this case.

Plenty of pricing parameters are introduced in the literature. Many of them are used in the case. Based on the review, the three Cs of pricing, including cost, competition, and customer value, lay the foundation for pricing. The case study agrees with the common challenge of the three Cs, the difficulty of getting information. It was a struggle for the case company, and it led to judgment calls based on very little information. The

interviews underlined the reference value of the customer. It had a large impact on the pricing, but evaluating the intangible value was again a judgment. It contributed to the significant strategic value gained from the case. Interestingly the strategic value, size of the customer and psychological attributes of the price weren't discussed in the reviewed literature. Based on this case study, they should be considered more often as they had a considerable effect.

Surprisingly, in general, hybrid pricing is overlooked in the reviewed literature. When present, it is often mentioned as a side note without much detail to it. The case study presents one approach to give light on the matter. The case company first estimated the situation for both price types separately to start with the maximum price. Then based on strategy and customer sensitivities, the two prices can be balanced. In this case, the length of the contract determined the total contract value, making it a key parameter contributing to the balancing of the two types. This also emphasises the need for quality data to estimate the customer's willingness to pay.

This case study provides insight into the practicalities of pricing within the context of B2B and SaaS. It can also help the case company in its future pricing activities by properly reviewing the current pricing theories. These points are covered in more detail in the following subchapter. Based on these remarks, the case study achieved its objectives.

6.1 Contribution to existing knowledge

This research contributes to the academic literature and community by presenting insights into an intriguing case study. The ambition was to discover relationships between the case project and company and the pricing method and process. This explanatory nature of the case study delivers three main contributions: a detailed description of the process of pricing, a group of pricing parameters, and reasoning behind a hybrid pricing approach. The empirical findings are then cross-examined with the reviewed literature. Commonalities are pointed out, and differences are portrayed.

In their extensive literature review regarding pricing strategy in marketing research, Kienzler and Kowalkowski (2017) called out for future research in two areas of interest: B2B and services domains. This thesis answers the call by providing a first-hand look at a case of pricing B2B services within the fintech field. Even though this is a holistic single case study with its limitations, the results can be particularly valuable if combined with other case studies within these two domains.

Similarly, Saltan and Smolander (2021), in their recent literature review regarding SaaS pricing, recommended future research directions. Among the list, they advocated for

SaaS studies from different contexts, assessing pricing methods, studying pricing processes and implementation, disclosing pricing factors, and assessing the influence of the various factors affecting SaaS pricing. This case study answers this call by providing insights from a fintech context, unfolding the methods used in a hybrid pricing approach, describing one real-life pricing process, and identifying the used pricing parameters and their reasoning.

Hopefully, this thesis contributes positively to the case company's pricing activities. At a bare minimum, it should encourage the team to continuedly to develop the process and give attention to the pricing. As the company grows and becomes more structured, so should the pricing process. Confidence is key to pricing, and it can be boosted by learning more.

6.2 Limitations and recommendations for future research

The research has limitations regarding how well the findings can be generalised to other domains, markets, or companies. Since it's a holistic single case study, it only explains one case representing a revelational sample of pricing in the given context. As stated above in the previous subchapter, the potential value of this study is best accomplished when combined with other similar studies on cases alike, and the results are combined. The first suggestion for further research is to conduct similar case studies in other companies within the same domains. Then gather the insights to generalise the results and provide insights into the current practicalities of pricing.

The interviewees were all from the case company, and therefore the views and opinions on certain items can be biased. Further research could be conducted in a broader manner to include the customer view. It would be interesting to verify or discard the assumptions made by the interviewees regarding the case customer. A study with multiple similar cases across different companies would also decrease the bias in the results.

The study's scope prevented the research from exploring the various parameters found. It would have been interesting to iterate and perform another round of literature review based on the insights gathered from the empirical analysis. This bears many research opportunities for future studies. Also, this highlights that future research with a similar approach might want to add an extra iterative step to perform a deeper analysis.

The case itself had some particularities that might not be present in other pricing cases, even in the case company's next pricing case of the same service. This is due to the customer's specifics and that this case was a first for the case company with the new

service. This needs to be considered when viewing the results and conclusions of this case. The circumstance was evident in the interviews, and it's considered in the analysis stages. Future research might benefit from analysing multiple cases within the same company to understand better the typical pricing case.

The question of how to gather customer and competition data remained unanswered both theoretically and empirically. Finding ways to perform such activities successfully in the international B2B markets would be highly appreciated by the case company and most likely other practitioners with similar challenges.

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APPENDIX A: INTERVIEW QUESTIONS

Research questions:

- How is hybrid pricing is performed by a B2B fintech practitioner?
    - What parameters are considered in the pricing?
    - How to balance the upfront project price and the reoccurring price?

Themes of the research:

- Pricing process
- Pricing method
- Parameters of pricing
- Hybrid pricing balance

Template questions

1. Could you briefly describe the background of the case?
2. Could you describe the conducted pricing process?
3. What was the selected pricing method?
4. What parameters did you consider when deciding on the pricing?

    4.1. What are the most influential?
5. How did you find the balance between reoccurring and one-time payments?

EXTRAS:

6. What were the main challenges of this pricing case?
7. In hindsight, would you do something differently?