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# OUTCOME-BASED SAAS PRICING

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# TIIVISTELMÄ

Valtteri Arminen: Tulosperusteinen SaaS hinnoittelu  
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Tulosperusteinen hinnoittelu (OBP) viittaa sopimukseen, jossa ainakin osa maksuista perustuu johonkin odotetun tuloksen indikaattoriin. OBP pyrkii vastaamaan arvopohjaisen hinnoittelun haasteisiin tarjoamalla työkaluja arvon mittaamiselle. Markkinoiden kiinnostus tulosperusteiseen hinnoitteluun on ollut havaittavissa viime vuosien aikana, mutta SaaS ympäristössä tehtyjä tutkimuksia aiheesta ei juurikaan ole saatavilla. Tarjolla oleva tutkimus tutkii tulosperusteista hinnoittelua valmistavan teollisuuden näkökulmista, joissa perinteisen tuotteiden ja laitteiden omistamisen sijaan ostetaan palveluntarjoajilta esimerkiksi käyttötunteja tai valmistuneiden kappaleiden määrää.

Työn tavoitteena on tunnistaa OBP hinnoittelun hyötyjä ja haasteita SaaS toimintaympäristössä. Tutkimuksessa keskitytään tarkastelemaan B2B palveluntarjoajia suomalaisilla markkinoilla. Lisäksi työssä pyritään tarjoamaan palveluntarjoajille viitekehys OBP mallin vaatimista kyvykkyyksistä, jotta kompleksiseksi havaittu OBP malli voidaan implementoida onnistuneesti osaksi organisaatioiden hinnoittelustrategiaa.

Työ on toteutettu yksittäistapaustutkimuksena haastatteleamalla työn tilaajaorganisaation toimihenkilöitä. Haastattelututkimuksen tueksi OBP hinnoittelun erityispiirteitä on kerätty pääosin valmistavan teollisuuden tutkimuksiin pohjautuvalla kirjallisuuskatsauksella. Integroivaan kirjallisuuskatsaukseen on sisällytetty myös markkinoita tutkivien kaupallisten toimijoiden havaintoja. Nämä havainnot perustuvat SaaS toimintaympäristössä viime vuosina tehtyihin asiakastutkimuksiin. Kirjallisuuskatsauksen eri lähteiden havaitaan tukevan toisiaan varsinkin hinnoittelumalliin liittyvien riskien ja mahdollisuuksien osalta. Tiivis yhteistyösuhde asiakkaan ja toimittajan välillä synnyttää hinnoittelumallin haasteet ja mahdollisuudet.

Analysoitujen materiaalien perusteella OBP tunnistettiin kompleksiseksi hinnoittelumalliksi, jonka implementointia varten palveluntarjoajan on arvioitava sekä omaa että potentiaalisten asiakkaiden kykyä osallistua kumppanuussuhteeseen. Työn sovellettavuuden rajoitteina voidaan pitää tutkimuksen keskittymistä yhden tapausorganisaation tutkimiseen. Lisäksi verrattain pieni haastatteluiden otoskoko ja asiakashaastatteluiden puuttuminen voi heikentää tulosten yleistettävyyttä.

Avainsanat: tulosperusteinen hinnoittelu, arvopohjainen hinnoittelu, Software-as-a-Service (SaaS)

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# ABSTRACT

Valtteri Arminen: Outcome-based SaaS pricing  
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Outcome-based pricing (OBP) refers to a contract where at least part of the payments are based on some indicator of the expected outcomes. OBP aims to meet the challenges of value-based pricing by providing tools for measuring value. The market's interest in performance-based pricing has been noticeable over the past few years, but there are hardly any studies on the topic available in the SaaS environment. The existing research investigates outcome-based pricing from the perspectives of the manufacturing industry, where instead of the traditional ownership of products and equipment, for example hours of use or the number of finished pieces, are purchased from the service providers.

The objective of the study is to identify the benefits and challenges of OBP in a SaaS environment. The study focuses on examining B2B service providers in the Finnish market. In addition, the study aims to offer service providers a framework for the capabilities required for OBP to support the successful implementation of a complex pricing model.

The study has been carried out as a single case study by interviewing employees of the organization ordering the study. To support the interview research, the characteristics of OBP have been collected with a literature review based mainly on studies of the manufacturing industry. The integrative literature review has also included the observations of commercial players studying the market. These findings are based on customer surveys conducted in the SaaS operating environment in recent years. The various sources of the literature review are found to support each other, especially in terms of risks and opportunities related to the pricing model. The close cooperation between the customer and the supplier creates the challenges and opportunities of the pricing model.

Based on the analyzed materials, OBP is identified as a complex pricing model. To implement the pricing model, the service provider must evaluate both its own and potential customers' ability to participate in the collaboration. Focusing on studying only one case organization and the relatively small sample size of the interviews and the absence of customer interviews may weaken the general applicability of the results.

Keywords: Outcome-based pricing, Value-based pricing, Software-as-a-Service (SaaS)

The originality of this thesis has been checked using the Turnitin OriginalityCheck service.

# PREFACE

When I started my studies, I set a goal to graduate as soon as possible. Now that I am graduating, I feel foolish for even saying such a thing out loud. How little did I know how much I would enjoy the upcoming years. The five and half years studying Industrial Engineering and Management have taught me a lot about engineering but also provided me with lifelong friendships and memories to cherish. Even though my university studies end, at least for now, I want to preserve the same curiosity and eagerness to learn, I had every day for the past five and half years, throughout my professional career.

I am thankful for the case organization for giving me the opportunity to do the thesis. Specially I want to express my gratitude to my instructor from the case organization for the valuable and professional support throughout the process. Thank you also to all the interviewees. Without your expertise, this thesis would not have been possible.

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Helsinki, 8.12.2022

Valtteri Arminen

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# LIST OF SYMBOLS AND ABBREVIATIONS

B2B	Business-to-business
B2C	Business-to-consumers
OBP	Outcome-based pricing
SaaS	Software-as-a-Service

# 1. INTRODUCTION

## 1.1 Background

Software-as-a-service (SaaS) can be defined as a licensing and distribution model for software in which customers may access hosted software via the Internet from service providers. Over 80 percent of organizations utilize one or more SaaS product. At same time the amount of SaaS products that are utilized by each company is constantly growing. SaaS is now the world's largest public cloud computing industry sector and the main model for software licensing and delivery due to its rapid expansion. (Saltan and Smolander, 2021a)

In their study Saltan and Smolander (2021a) emphasize the importance of pricing in SaaS business. Pricing is a significant, complex, and important aspect of companies' strategies and also product and offering management. With the term pricing, it is meant the choices, actions, underlying circumstances, and procedures that go into figuring out the cost of the provided SaaS service. The financial performance of businesses may be dramatically impacted by even a modest change in the pricing of a SaaS service, either positively or negatively. A thorough pricing management approach that businesses must handle includes determining the price for a good or service. Effective price management necessitates sophisticated analytics and well-designed decision-making, along with collaboration and identifying common ground across the various corporate divisions involved. This is a recognized problem for many businesses (Campbell, 2020).

Selecting the appropriate pricing strategy is crucial for software manufacturers in order to draw in and keep customers while fending off competitors. Pricing models are increasingly considering a customer-centric mindset by linking price perceptions to product configurations to be able to rationalize a "cost-price gap" and to concentrate the value delivered to the customer. (Baur et al., 2014)

More marketers are now becoming aware of the several pricing options available to businesses, some of which are significantly more effective than others for a given application. Overall, pricing strategies that take advantage of a buyer's inexperience are out, while strategies like "pay if it works" that regard customers as knowledgeable partners are in. It appears likely that an increasing percentage of customers will not pay the same price



as the capacity to monitor performance continues to advance. They'll spend the appropriate amount—the wise amount. (Raju and Zhang, 2010)

During the last years, both academia and commercial practice have given outcome-based pricing a growing amount of attention. The fundamental idea behind outcome-based pricing is to purchase the actual business outcomes instead of the resources (for example replacement components or maintenance work) necessary to provide them. Because the customers pay the service provider *"based on the same outcome that the customer cares about (i.e., product utilization),"* (Ge et al., 2018) outcome-based pricing models (hereafter OBP) are recognized for having the ability to align the interests of the service providers and customer companies. The service provider therefore is inspired to enhance product performance. (Böhm et al., 2016)

Studies considering outcome-based pricing have been conducted in manufacturing industry, but comprehensive studies about outcome-based pricing in SaaS context are currently missing. For example, risks related outcome-based pricing have been studied by Hou & Neely (2018) and profitability of outcome-based pricing and the challenges in customer commitment and complexity and dependencies has been discussed by Korkeamäki et al. (2021; 2022). These studies set a starting point for examining outcome-based pricing in SaaS context. Motivation for this study is to discover similarities and differences between manufacturing industry and B2B SaaS industry in terms of outcome-based pricing.

## **1.2 Research problem, objectives, and scope**

This thesis was carried out on the basis of and on behalf of a Nordic IT service company. The purpose of this thesis is to study the outcome-based pricing approach in the context of B2B SaaS. Moreover, the study investigates the opportunities and challenges of outcome-based pricing. This study also tries to enlighten the ways to address the challenges and to form a capability framework to support the use of outcome-based pricing. The research is carried out as a master's thesis, which places limitations on the scope of the work. Due to the limited research material, the customer perspective is limited to Finnish customers, which can partly limit the applicability of the results of the work to other markets.

### **Research questions:**

**RQ1:** What does outcome-based pricing mean in the context of B2B SaaS business?

**RQ2:** What are the benefits and risks of using outcome-based pricing?

**RQ3:** What should be taken into consideration when offering an outcome-based contract?

### **1.3 Structure of the thesis**

The structure of this thesis is divided into six parts and follows a scientific structure. The first chapter presents the background of the research, a description of the operating environment and the research questions. The second chapter provides the background for the research theory. The second chapter also introduces pricing strategies and models in general and the special features of SaaS pricing. SaaS pricing is reflected in the pricing strategies and models presented in the first part of the chapter, and different ways to implement SaaS pricing are presented.

In the third chapter, the study continues to examine the theory related to the research topic. The chapter introduces outcome-based pricing in general in a B2B operating environment. The chapter is divided into four sections. In the first two parts, the theory of outcome-based pricing is discussed through the possible consequences associated with it and from the point of view of the requirements set for the service provider. In addition to these, the third section presents the best practices collected from the technology industry. In the fourth section, the findings of academic sources and best practices are drawn together.

The fourth chapter discusses work research methods and introduces the case company that is the research target. This chapter introduces the methodological choices, data collection method and data analysis procedures. The work was carried out as a single case study and all research data was collected from one company through personal interviews.

The fifth chapter analyzes and presents the results of the study. The first section describes the special features of outcome-based pricing in a SaaS operating environment. The following section presents the requirements for the service provider identified based on the interviews. The third section brings together the risks and opportunities of outcome-based pricing. The last section reflects on the progress of the research process and the achieved results.

The sixth chapter presents a summary of the study's theoretical contribution, possible limitations, and possible topics for future research. Finally, references are given, and the interview structure is included in the appendix.

## 2. PRICING

### 2.1 Pricing strategies

Pricing can be designed and systematized in a variety of ways. The selection of a price approach or strategy, however, is one of the first essential elements of pricing. Differentiating between cost-based-, competition-based- and value-based pricing, is commonly used policy. (Saltan, 2021)

#### 2.1.1 Cost-plus pricing

Cost-plus pricing can be viewed as a pricing strategy based on the analysis of a companies' cost structure. This particular strategy can also be referred as "fact-based" pricing and the benefits for implementing this strategy are it's concrete and tangible nature. (Baur et al., 2014; Wu et al., 2020)

Since it is the most straightforward method of pricing, cost-based pricing can be considered from a historical point of view as the most popular pricing technique. Additionally, cost-based pricing, which simply generates sales prices by adding targeted profits to the cost of the item, has been viewed as the most secure pricing technique from a profitability viewpoint.

As Hinterhuber (2008) notes, a variety of terms, including cost-plus pricing, mark-up pricing, and target-return pricing, are used when discussing cost-based pricing. Various publications also introduce additional terminology. However, the foundation of each of these ideas is the addition of a percentage or monetary value to the cost. Thus, the term "cost-based pricing" is the sole one referred in this research.

The popularity of cost-based pricing can be attributed to the tactic's ease of use. There is a notable need for a clear process whenever there are numerous things to be priced with potentially identical attributes. Hence, for example in retail and wholesale cost-based pricing is preferred. Choosing cost-based pricing is often linked to company's need to maintain price-stability within marketplaces and to refrain from pricing products too high or too low in comparison to rivals. This theory is based on the perception that one's competitors' prices per item are frequently comparable. Prices have been seen to be competitive by adding generally used quantities that are believed to be applied by other operators within the same industry on top of costs, avoiding the need to conduct thorough research on competitors' real selling prices. (Schindler, 2012)

Even though cost-based pricing is a common pricing technique, it is also referred as least effective pricing strategy. Although in theory it could seem a straightforward and secure way to run a successful corporation, it however limits the company's financial performance level frequently. (Nagle and Müller, 2018) The main flaw with cost-based pricing is the assumption that profitability can be guaranteed for the goods that are sold if costs are put first when sales prices are determined. This would genuinely imply that the tones sold had the appropriate profit percentage, but it might also restrict a more significant measure of total earnings. Circumstances where customer considers that prices are set too high can result in fewer sales quantities than anticipated if the increased amount planned to provide the necessary profit does not produce the desired results. As a result of the potential for lower-than-expected sales volumes and overall earnings, total profit in this kind of scenario may not even come close to covering all costs. Conversely, increasing the price above the cost may result in a price that is actually lower than what customers are willing to pay. The potential to create a larger total profit than anticipated in this case would limit financial performance. (Indounas, 2006)

The fact that unit costs frequently fluctuate with volume in most businesses is another problem with cost-based pricing. This is especially to be taken into account in a SaaS environment. When setting the price, the professionals first need to define the average unit of cost. All in all, setting the price should be done without affecting the volume. Setting profitability as the primary driver of the pricing strategy might even be impossible if mistakes are made when the impact of the price on volume and vice versa are analyzed. Covering up such mistakes might in some cases make things worse. Prices are increased to offset costs if initial costs were anticipated too low. As a higher price may result in lower sales, this can further increase actual unit cost. Theoretically speaking, prices should be raised even more. Vice versa, if there has been overestimation of average unit costs and sales are yet higher than anticipated, prices should theoretically be reduced because the average unit cost is in fact lower than it was when cost-based pricing was used. Or, to put it another way, cost-based pricing leads to overpricing in weaker markets and underpricing in robust markets. This is the contrary of what a smart pricing plan typically aims for. (Nagle and Müller, 2018)

The obvious issue in cost-based pricing is that it disregards the client's willingness to pay. Even though a selling company's costs would alter, the customer's perception of price remains unchanged. Beneficial measures in the sourcing and supply divisions have frequently been transmitted straight to the customer in cost-based pricing. Savings on

sourcing and supplies obtained through higher vendor discounts should not be automatically reflected in sales prices. These savings might be kept within the company, increasing profitability rather than cutting costs. (Hill, 2013)

While cost-based pricing is questioned, it is not necessarily guaranteed to fail, at least not immediately. There are numerous businesses that successfully use cost-based pricing for example in service business. Some businesses have even created more dynamic cost-based pricing strategies. How much more successful these businesses could be as well as what amount of margin would be sufficient remain the main questions and concerns for this type of model. (Liozu, 2016a)

### **2.1.2 Competition-based pricing**

This strategy is based on a study of the demand-supply equilibrium and market rivalry. Price sensitivity and market competition for similar services are two types of affects on pricing that are taken into account by market-based pricing. Some academics and professionals recommend making a distinction between premium pricing and competitor-based pricing as distinct strategies from market-based pricing. (Baur et al., 2014; Wu et al., 2020)

Competition-based pricing bases price determination on an analysis of rivals' prices. One option for this pricing strategy is to aim for setting prices that are higher or lower than competitors' prices, or matching prices in a way they are comparable to competitors'. (Schindler, 2012)

According to Hinterhuber (2008), competition-based pricing takes markets into account more effectively than cost-based pricing, due to this it can be considered as "a more advanced pricing approach". Corporations in various marketplaces are thought to use the competition-based pricing strategy the most frequently. When a company's offering of selection is very similar to its competitors, competition-based pricing could be the best course of action. Selling of goods is one example of this type of business. (Hinterhuber, 2008)

The benefits of cost-based pricing and those of competition-based pricing are comparable. It is a logical strategy given how frequently it has been seen that in order to keep customers interested, pricing must be set at levels that are comparable to those of competitors. Additionally, it is not the most complicated method of pricing because, in essence, it simply entails adding or removing the wanted shares of the prices which customers have determined. (Schindler, 2012)

As a pricing strategy, competition-based pricing allows assessment of in demand price levels while taking into account various rival prices. Prices may represent the highest, lowest, or average prices offered by rivals in a market. Additionally, pricing level can be targeted to exclusively focus on specific competitors. A competitor that should be compared is one that is viewed as being the most alike, most powerful, most admired, or even the competition that is expanding the fastest and having the biggest impact on markets. (Schindler, 2012)

The most visible problem when viewing the difficulties in competition-based pricing is finding the prices set by rivals. Prices are frequently hidden from parties other than the buyer and seller in markets. Buyers may even be enticed to give sellers inaccurate information because they hope to be able to negotiate lower price. Even the prices that were agreed upon together with other parties may not end up being the final prices used, as pricing are frequently the outcome of discussions held behind closed doors. It is therefore typically not sufficient to just obtain information and rely on it to determine rates which rest on completion. Additionally, competitors' expected expenses, tactics, profit margins and other such components related to competitive intelligence need to be gone deep into. (Schindler, 2012)

Similar to cost-based pricing, competition-based pricing's downside is the possibility to leave money on the table and limit financial performance. Since the true value of the goods is not considered, there is no doubt on the customer's desire to pay. Particularly in the industries where the longest dominating pricing strategy has been competition-based pricing, market prices can be merely the outcome of persistent imitation of prices of competitors rather than rational prices based on the value of the good. (Schindler, 2012)

### **2.1.3 Value-based pricing**

This pricing strategy is predicated on the value assigned by the customer. Customers' perceptions of the discrepancy between what is expected and what is actually given form the foundation of the perception-value notion. Due to the challenges involved in determining this value and the necessity to compare it to other pricing systems, this technique is far more subjective. A frequent term for perceived value is value for money, which is the relationship between i.e., a SaaS service's customer value and pricing. The main advantage of value-based pricing is that it is seen as fair by customers who can compare their expenses and advantages. However, because perceived value is largely based on

how satisfied each individual consumer is, it is challenging to establish. (Baur et al., 2014; Wu et al., 2020)

When the price is based on the value generated from the offering by which the customer can improve their own financial performance, the search for a value basis forces the service provider to familiarize with the customer's earning logic. Value-based pricing often has a long-term effect, so more lasting customer relationships are created.

According to Ingenbleek (2007), customer value detection and customer willingness to pay highlights two positive results from value-based pricing: firstly, higher performance in the market, because the value-based price-thinking matches the quality to be created with the perception and, secondly, a higher profit margin, because the management has a better understanding of the customers willingness to pay.

The basic goal with all pricing is to affect the financial performance of the company positively. In particular, the execution of a value-based pricing strategy has been found to have a large impact on earnings. Research result by Hinterhuber (2004) reveals following improvement in providers' result: If costs are calculated by 5%, the operating result will increase by 10%. If net sales are increased by 5%, the operating result will increase by 12%. But if you raise prices by 5%, the impact on operating earnings before interest and tax will be an average 22%. (Hinterhuber, 2004) Suppliers using value-based pricing are also reporting increasing profits both in short- and long-term.

Other pricing methods allow the customer alone to determine the value of the product or service they are buying for themselves; the service provider is unable to influence it. Value-based pricing enables the added value generated to be shared between the supplier and the customer. It thus serves as a marketing tool. The customer will be able to show the share that comes to him as a "return."

Referring to the prospect theory of Kahnemann and Tversky (1979), Hinterhuber (2004) has stated that it would be worthwhile to position the products sold in such a way that they offer customers benefit or yield rather than loss inhibition. Decision-makers perceive loss thinking as more negative than benefit, even though the amount is the same. For example, insurers use this in marketing by promising peace of mind and not so much convey information about how big losses might result from, say, a fire. The insurance premium paid by the customer is the same in either case.

When the price is linked to the monetary benefit of a product or service, the discrepancy between the value of use and exchange value is less in the eyes of the customer. The closer the customer relationship, the more weight can be put on the use value as a price basis. From the customer's perspective it is unwise to allocate resources to collaborate

with a supplier that focuses only on exchange value, i.e., price, if it is possible to obtain a higher use-value for the investment with another supplier. Value information-based pricing is likely to result in prices that fit the customer's value perception and purchase decision, which in turn leads to higher customer satisfaction, sales, and market share. (Ingenbleek, 2007)

Value-based pricing was found to be substantially less widely used than other pricing strategies in a study by Hinterhuber and Bertini (2011). Researchers also discovered a number of barriers that prevent the use of the most successful pricing strategy, value-based pricing. When compared to other pricing strategies like cost- or competition-based pricing, value-based pricing is frequently perceived as being much more complex (Steinbrenner and Turčínková, 2021)

According to Hinterhuber (2008) and Hinterhuber and Bertini (2011), the biggest obstacles to implementing value-based pricing are challenges with market segmentation, sales department management, and value communication. Other barriers to the adoption of value-based pricing are the potential loss of clients and a complex implementation result from strong client specificity. Additional barriers include the tendency to use conventional pricing techniques methods, a lack of knowledge and expertise, a lack of support from senior management, and a lack of departmental enthusiasm. (Steinbrenner and Turčínková, 2021) In the following chapters the biggest obstacles are described:

**1. Value-assessment.** Absence of tools, methodologies, and data to evaluate the value provided for the customer is the main issue with value assessment. It is also seen to be frequently the biggest barrier to deploying value-based pricing. Due to these challenges, businesses are frequently obliged to select between cost-based or completion-based pricing strategies since it is impossible to accurately assess customer perceived value. On occasion, it may happen that marketing and sales teams are unsure of the variables on which customers' perceived value is built. Because of this, businesses frequently focus on technical skills and traits rather than the advantages and value that customers would receive as a result of these technological aspects. (Hinterhuber, 2008; Hinterhuber and Bertini, 2011)

Value quantification challenges can stem from a lack of trust between the parties. The service provider would require access to customer baseline data in order to more accurately measure customer value. When a customer is hesitant to divulge their numerical data to a merchant, other factors like confidentiality and rivalry also come into play. One



major deterrent to information sharing is the possibility that the seller will identify an undesirable value feature from the perspective of the buyer and exploit it by raising prices for the consumer. (Töytäri and Rajala, 2015)

**2. Value communication.** What value aspect should be presented for the customer is frequently the fundamental issue with value communication. Even though a product may offer features and qualities that surpass those of competitors' products, it is not a given that the client will think the value is comparable. It can be difficult to effectively communicate value to clients, particularly in crowded markets. Related to difficulties encountered during the value assessment phase, communication frequently focuses primarily on technical features rather than the performance of the product and what that means to the user. Off-handed communication may also result in a scenario where customers focus more on the price to be paid than on value-added features, this creates challenging situation for using value-based pricing approach. (Hinterhuber, 2008; Hinterhuber and Bertini, 2011)

**3. Sales department management and senior management support.** Lack of incentives to focus on value from a price standpoint is a common issue with sales department management. Without considering the long-term effects of designed value-based prices, sales teams give discounts in an effort to meet incentive targets based on sales volumes. (Hinterhuber, 2008)

Insufficient senior management is another factor. Senior managers frequently have the belief that large market share would inevitably lead to high profitability. As a result, sales managers are pushed to accomplish market share goals while receiving less praise for adhering to value-based pricing. (Hinterhuber and Bertini, 2011)

## 2.2 Software-As-A-Service

The definition of SaaS that is most frequently used was provided in 2011 by the United States National Institute of Standards and Technology (NIST) (Mell and Grance, 2011). NIST defines the general concept of cloud computing as: *“a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”* Additionally, SaaS is described as one of three service models for cloud computing, besides Platform- and Infrastructure-as-a-Service. NIST (2011) has defined Software as a Service (SaaS) specifically as *“the capability provided to the consumer is to use the provider’s applications running on a cloud infrastructure”*. Through a thin client

interface or an application, users of different devices can access the applications. The underlying cloud infrastructure is not managed or controlled by the consumer, with the possible exception of a small number of user-specific application configuration parameters. (Saltan and Smolander, 2019)

According to Saltan and Smolander (2019) it is frequently observed that academic researchers employ comparable terms depending on their research domain rather than SaaS. The names "cloud services", "online services" and "information services", are frequently employed as alternative expression for SaaS depending on the study environment.

### **2.3 Pricing of SaaS**

The pricing models and pricing strategies of SaaS services are different from the pricing of traditional software. SaaS services bring their own challenge to the pricing strategy, as unlike traditional software business, SaaS services can also be used to implement usage-based pricing (Lehmann and Buxmann, 2009). In traditional software, pricing is based on a license-based fee, in which the customer buys a license for the product in question (Rissanen, 2012). In addition to the license, the customer acquires ownership of the product in question. In traditional software sales, the costs of implementation and use of the software, including installation, servers, connections and user support, are the responsibility of the customer or they can be purchased separately as a service (Rissanen, 2012). In the traditional software business, application acquisition is based on an upfront purchase, resulting in a high initial investment (Choudhary, 2007; Ojala, 2013). For the seller in a traditional software store, cash flows are already generated immediately after the transaction, while in the SaaS business, the income is repatriated in the long term.

Converting traditional software licenses to SaaS services allows for different pricing models but it also brings with it profitability challenges (Feng et al., 2018; Ojala, 2016). As the market for SaaS services grows, so does competition in the market, which poses both profitability challenges and makes it difficult for new entrants to enter the market (Feng et al., 2018). In order to survive in the SaaS market, it is necessary for new SaaS players to strategically make, first of all, the decision to enter the market and, in addition to that, a pricing strategy must be made with which to go to the market (Feng et al., 2018).

Laatikainen (2018) emphasizes the importance of selecting a pricing strategy and creating a transparent, well-defined pricing model. By having a thought out pricing approach it is

possible to increase the service providers profitability, influence customer purchasing decisions and support in differentiating from rivals (Laatikainen, 2018). Price is also the metric by which customers determine the value offered and also has a strong effect on the company's brand (Shipley and Jobber, 2001).

A paper by Saltan and Smolander (2021c) summarizes main pricing strategies commonly used in the context of SaaS. The main strategies introduced in the paper are value-based pricing, competition-based pricing, and cost-based pricing. As a summary, in the SaaS context the pricing strategies can be described as in general pricing. Value-based pricing is predicated on matching prices to what customers believe they are worth. Competition-based pricing is often based on matching prices with those provided by rivals, with a premium or reduction depending on the situation. Another factor used as the basis of pricing is the market equilibrium study of all potential customers and SaaS providers. Finally, cost-based pricing proposes pricing based on SaaS providers' cost structures. Researchers and professionals have frequently stressed the benefits and significance of value-based pricing in relation to SaaS. Nevertheless, all four pricing techniques could be used in practice, and the real strategy is frequently a hybrid of these four. (Saltan and Smolander, 2021b)

According to a survey, less than five percent of organizations have innovative pricing strategies in place. However, pricing and deciding on a pricing model can give a company a significant competitive advantage. Competitive advantage refers to the relative advantage of a company over its competitors in a course of action or other success factor (Barney, 1991). By investing in the pricing strategy, the organization has the opportunity to increase both revenue and at the same time customer satisfaction. (Hinterhuber and Liozu, 2014)

Hinterhuber's (2016) research had studied assumptions related to price setting and found that in reality the value received by the customer is the starting point for pricing long term. In their own article, Organizations should transition from conventional cost-based pricing to innovative pricing, according to Bonnemaier et al. (2010). The basic premise of pricing is the value received by the customer (Bonnemeier et al., 2010). In their article, they argue that the value received by the customer should be a key value in the formation of pricing, but that the cost of the product/service cannot be completely forgotten because they can be used to calculate the yield limit, i.e. the point after which one's own costs have been covered (Bonnemeier et al., 2010).

Results of analysis by Wu et al. (2014) also proposes that value-based pricing approach is preferred over other strategies. Customers truly want to pay for value. By providing

high-quality SaaS software, SaaS vendors will be able to secure sustainable revenue. This is made possible by the focus on value-based approach in software pricing. (Wu et al., 2014) There results are supported by a later study by Saltan and Smolander (2021c). According to their study the majority of businesses (91%) base the price of SaaS solutions on the value/benefits received by customers and implicitly indicate this on their pricing documents. From this it is possible to interpret that businesses are adopting value- or hybrid-based pricing strategies. (Saltan and Smolander, 2021c)

To widen the perspective on SaaS-pricing Saltan and Smolander have developed a pricing typology based on a survey. The paper suggest that four major factors affect the SaaS pricing approach: 1. The customer types and market segments that are being targeted; 2. Customer willingness to pay for and the value ding delivered; 3. Level of complexity related to the sourcing process of SaaS product and the complexity implementation to customer environment; 4. How unique of the SaaS offering is. (Saltan and Smolander, 2021b) The categorization of these following four generic pricing approaches is based on an analysis of these four factors.

**Mass-market SaaS pricing** is the term used to describe pricing strategies frequently used by SaaS businesses that target small and medium-sized businesses and provide solutions for the mass market. Small teams and individuals within large corporations may also employ such SaaS solutions as part of their own private efforts. Customer acquisition, market share maximization, and competitive advantage are the primary pricing goals for this pricing strategy. Market-based pricing is, to a considerable extent, applied to a value-based pricing strategy. Businesses of this type also frequently use the free-mium model and a free model with a different form of monetization from charging clients (i.e., advertisement). The pricing-related activities can be extensively standardized, powered by data analytics, and even automated, depending on the maturity of the organization and SaaS solution.

**Generalist SaaS pricing** is frequently used in SaaS businesses that cater to small, mid-sized, and large businesses by providing mass-market services in the B2B market. For this kind of pricing, winning the competition and acquiring, monetizing, and retaining customers are the primary goals. The pricing strategy used by businesses using this sort of pricing is a hybrid one that combines competition-based pricing and value-based pricing. The typical price paid by client is relatively comparable, despite the possibility that competing businesses may evaluate and organize perceived value differently. SaaS providers using generic SaaS pricing frequently employ penetration pricing and complex usage-based tiered pricing which includes several choices in place of freemium. Processes connected to pricing are frequently codified and powered by data analytics. Although

there is a sales crew and large corporations can negotiate pricing individually, pricing automation may be used.

**Specialist SaaS pricing** refers to the pricing strategies used by B2B SaaS companies with specialized SaaS solutions. Due to the small market, monetization and client retention through high-quality service should receive more attention than customer acquisition. This sort of pricing is used by businesses to execute value-based pricing in its classical sense, where prices are fairly matched to the value perceived. Determining value measurements and measuring perceived value is so essential. The majority of pricing-related procedures, however, are not often formalized. Direct customer feedback can be used as decision-making data. Although the fundamental pricing details might be available to the general public, communication with the sales team is often required in purchasing processes.

**High-rise SaaS pricing** is used by businesses who want to provide their SaaS product to large organizations. The major goals of pricing are sustainable business growth and client monetization and retention. Value-based pricing and cost-based pricing are combined in this style of SaaS pricing. The accompanying expenses may be fairly significant due to the SaaS solutions' complicatedness as well as the security demands and reliability. Therefore, it is crucial for businesses using this form of pricing to make sure that revenue from a small but high-volume of clients would cover these expenses. The majority of pricing-related activities are not defined, pricing contract terms are individually agreed with each customer, and the necessary supplemental services heavily influence the final price.

The idea of a SaaS pricing strategy and SaaS pricing models are closely related. With the help of the chosen pricing strategy, a number of internal and external criteria, and a structured algorithm, the SaaS pricing model aims defining and giving the method for calculating prices. Various existing articles have varying amounts of recognized price model. For this study, the pricing models have been defined as shown in Table 1.

**Table 1 SaaS pricing model (Campbell, 2020; Harmon et al., 2009)**

Pricing model	Definition
Flat-rate pricing	Payments of the SaaS offering is fixed.
Pay-as-you-go pricing	Payments for SaaS are based on selected usage metrics.
Tiered pricing	A predetermined number of features and usage requirements (such as the quantity of items and transactions) are offered with SaaS at various price points.
User-based pricing	SaaS price is based on the amount of users added to the subscription
Feature-based pricing	The cost of the product is determined by the features and functionality which SaaS has enabled.
Variable pricing	Payments for SaaS are addressed separately

These models can be combined to create hybrid models, much like pricing strategy. According to Saltan and Smolander (2021c) tiered pricing is the most popular pricing approach. Furthermore, almost 30 percent of businesses create and employ hybrid models that are mostly based on the tiered pricing model.

As said earlier value-based pricing is a preferred approach. When using value-based strategy SaaS providers are using more than one metric to measure value and are combining different models.(Saltan and Smolander, 2021c) Five metrics that are described in Table 2 were chosen from a wide range of metrics utilized by SaaS providers for this study.

**Table 2 SaaS pricing metrics (Adapted from Saltan and Smolander, 2021c)**

Pricing metrics	Definition
User-based metrics	The number of users or accounts a customer request determines the cost of using a SaaS product.
Function-based metrics	The quantity of features, options, and functionalities that a SaaS service offers to its user determines how much it costs them to use it.
Usage-based metrics	The level/depth of usage determines how much a SaaS product will cost (for example, how much cloud storage will be needed, or how much transactions needs to be carried out)
Consumer-based metrics	A SaaS solution's price is defined by the specifics of the customer (such as the B2B-market, the customer's revenue, or size of the customer).
Outcome-based metrics	The outcomes achieved through utilizing the SaaS solution (i.e., an increase in revenue) determine the price.

## 2.4 Summary of pricing theory

To summarize the SaaS related pricing theory, it seems that for a SaaS provider the most potential lies in utilization of the value-based pricing strategy. Value-based pricing offers providers means to differentiate themselves from the competition and to use pricing as a strategic tool. The value-based pricing approach has also shown to be a more profitable pricing strategy when compared to competition- or cost-based pricing strategies. Therefore, it can be worth to invest into implementing value-based pricing.

General challenges in value-pricing, such as value assessment, value communication as well as sales department management and senior-level management support related challenges are highlighted also in SaaS pricing environment. Due to these challenges value-based pricing is often seen as a complex pricing strategy and therefore more straightforward strategies such as cost- or competition-based pricing is selected for company's pricing approach.

Even though a majority of SaaS providers are using value-based pricing approaches (Saltan and Smolander, 2021c) there is still need for more innovative pricing approaches (Bonnemeier et al., 2010). Innovative pricing can be based on value-based pricing strategy. It can also be a hybrid model or strategy combining different pricing approaches to achieve a profitable and appealing pricing approach. The aim is to lower the level of complexity with the pricing strategy. The approach is to be easily understandable and quantifiable by potential customers. The pricing should also support SaaS provider's capability to sell without increasing internal complexity.



### 3. OUTCOME BASED PRICING

In this study, the concept "outcome-based pricing" (OBP) refers to a contract in which at least a portion of the payments is based on some indicator of the perceived outcome. It contains contracting approaches referred to as performance-based, acquisition, performance-based funding, results-based contracting, pay for success, pay for performance, performance-based contracting (PBC), payment by results, performance-based service contracting, and payment by outcomes, though it is not analogous with all the preceding terms. Hou & Neeley (2017) have summarized OBP well in their research as "*an agreement between the provider and the customer that the provider provides total solutions and is paid based on the outcomes of the solutions or the outcomes of customer value in a continual use situation*".

In this study OBP interpreted as an evolution of value-based pricing. The supplier agrees to accept a payment that is contingent upon a successful outcome for the customer when compared to traditional pricing where customer pays on the promise of value to be provided. The payment may be linked to the degree of success achieved i.e., linked to certain outcome metric. Value created for the customer can be seen as outcomes. Outcome-based pricing models are focusing on the business outcomes, where the customer's payments re based on the realization of predefined outcomes.

Instead of just paying for activities and the expected outcomes from those activities, an OBP strategy enables the client to make payments only once the vendor has met the agreed-upon objectives (Ng et al., 2009). OBP places more emphasis on attaining necessary outcomes than on carrying out a list of prescribed requirements or tasks (Bramwell, 2003; Gruneberg et al., 2007). In conclusion, rather than owning the products, the customer purchases the consequences of the product used.

OBP promises and delivers financial and/or operational outcomes for clients. New value drivers, such mutual learning, might emerge as a result of the risk shift from client to supplier. Customers pay for the outcomes delivered through outcome-based pricing (Ng et al., 2009). The well-known cases from the manufacturing industry are perhaps Rolls-"Power Royce's by the Hour" and "Total Care" programs, which sell jet engine operating hours rather than the concrete products. (Ng et al., 2012). The service providers adapt their business model to carefully resemble and be in line with the business model of their customers in order to deliver the specific, contractually agreed outcomes. (Visnjic et al., 2018).

### 3.1 Potential Consequences

This section presents potential consequences of implementing OBP recognized from the academic literature.

#### Long term revenues

A study by Korkeamäki et al. (2021) demonstrates how OBP offerings can be profitable. The findings consistently showed that OBP providers and non-OBP providers have a significantly different gross profit. It was discovered that an OBP provider firm had a gross margin percentage that is around 4,40 percentage points greater than the average non-OBP provider firm.

In addition to maximizing profit service providers are usually interested in increasing the duration of customer relationships. Customers, on the other hand, typically have a tendency to be reluctant to commit into long-term relationships and favors contracts that are more flexible. Long-term service agreements for the conventional sales and maintenance of products may not always provide the best framework for ongoing improvements since they shield the service provider from competition and deter them from taking advantage of new advancements. (Singh and Markeset, 2008)

However, in OBP, this issue is entirely different because the service provider's investment in purchasing the technology or products may only be profitable if the client accepts a specific minimum contract length. Too short a contract period may prevent the service provider from considering the necessary investments, especially when it comes to highly specialized services for the customer's needs. (Martin, 1997; Tsang, 2002). The customer's desire for continuous improvements is still questionable, despite the service provider's obvious interest in a long-term customer relationship. Attention should be paid to the extent of the responsibilities included in the agreement to clarify this trade-off (Singh and Markeset, 2008).

Hypko et al. (2010) pointed out that by taking greater responsibility the service provider deepens the relationship which may lead to extended customer relationship. OBP encourages the service provider to reach for the maximum performance efficiency and effectiveness. This creates a setting for continuous improvements, which can similarly be in the benefit of the customer. It creates the foundation of customer satisfaction and supports the service provider to benefit from increased level of customer loyalty. (Hypko et al., 2010) This is also expected to create long-term revenue (Alonso-Rasgado et al., 2004; Buse et al., 2001).

### **Reduced customer's risk**

OBP enables the service provider to increase their reach and introduce new technologies to customers – by selling the outcome instead of traditionally selling products and features (Decker and Paesler, 2004). OBP is used, in particular, by companies who, rather than focusing on pricing leadership, concentrate their competitive strategies on innovation and technological leadership (Hypko et al., 2010). For customers who are risk averse OBP is seen very attractive option as the contract transfers risk to the service provider. Reasons for risk averse buying strategies vary but in high technology customer may see them lacking appropriate knowledge and be unsure about the tangible benefits related to the proposed services (Hypko et al., 2010). The more customers are uncertain about the factual benefits of offered services the more they will favor OBP. This payment structure reduces the customers' uncertainties relating the potential negative effects and will send a convincing message that the perceived value will actually be realized. Therefore, OBP may be a better distribution strategy when clients are uncertain of the advantages of highly innovative services (Hünerberg and Hüttmann, 2003). Overall, decreasing the risk that the customer before assumed and strengthening the relationship when the customer realizes that the service provider and themselves are facing a challenge might lead to an increase in customer acquisition.(Hypko et al., 2010)

### **Enhanced product reliability and performance**

Example from manufacturing industry suggests that in conventional time and material based services (Roels et al., 2010), where the client payments are performed after the agreed-upon tasks are completed, the breakdowns actually fuel the profitable spare parts and repair industry This is due to the lack of the service provider's incentives enforced by contracts to maintain the systems operational. (Ng et al., 2013). OBP on the contrary turns this set-up upside down and aligns the interest of the supplier with the interest of the buyer and the client become inextricably entwined in the OBP partnership (Visnjic et al., 2018). Bigger customer profits will therefore result in higher provider profits, which will encourage the service provider to take actions leading to increased productivity (Korkeamäki et al., 2021; Sumo et al., 2016).

For instance, it is in the service provider's best interest to decrease the total resources needed for delivering outcome in order to produce service profits because operations, maintenance, and disposal-related costs make up the most of the total cost of ownership of service provided (Kim et al., 2017). Consequently, a particular part of the OBP research has concentrated on elements to reduce OBP providers' expenses. Improving

reliability is economically extremely important for the service providers using OBP approach (Jin and Tian, 2012; Jin and Wang, 2012; Öner et al., 2015), because reliability of the solution will affect the profitability. For example production slowdowns or stoppages can lead to the payment of fines or compensation agreed in the contracts (Mirzahosseini and Piplani, 2011; Patra et al., 2019).

In order to supply the service that meets the established performance requirements, the provider is initially concerned with the machinery or equipment's performance. The service provider is highly motivated to select the best available solutions to meet the outcome criteria because performing at poor level, such as unreliable availability or poor-quality outputs, immediately impacts the service provider's profits. The customer may additionally benefit from a more effective utilization of his financial resources. The customer has more money available because he can use his own earnings to offset the constantly increasing service costs for purchasing performance, allowing him to demand the performance of more sophisticated gear or equipment that would otherwise be financially unviable. (Hypko et al., 2010)

The client benefits from this condition throughout the duration of the contract if the performance provider has chosen solutions that are best appropriate for the range of services when the contract is finalized. After signing the contract, the customers concern regarding future technology expiration are no longer topical, unlike when buying services in the traditional manner. Instead, the service provider delivering the performance manages the concerns regarding that new technologies might emerge, lowering the value of the service being delivered and encouraging future research. In these situations, the consumer benefits from ongoing access to the technological advancements. (Hypko et al., 2010) With regard to maximizing performance effectiveness, in addition to the technological performance of the solution, the delivery of the service represents additional crucial focus point. Given that the payment is based on outcomes created, the service provider has powerful incentives to minimize downtimes and hence expedite troubleshooting (Pautsch, 2008). Additionally, when purchasing merely the outcomes, as opposed to customarily purchasing additional supporting services, the service provider may offer a competent service support employee to be at customers service whose expertise can be utilized in improving solution usage. Overall, these elements make it possible for the client to gain from improved performance. (Hypko et al., 2010)

### **Increased risk for service provider**

On the downside, OBP is intended to raise the risks for suppliers due to budget-exceeding costs, challenges in measurement, as well as contractual or resource challenges. (Schaefers et al., 2021)

Since the supplier bears the expense if the price to produce the needed results is underestimated, the supplier is exposed to greater financial risks. Therefore, it is crucial for the supplier to forecast cost and performance using OBP throughout the contract's bidding phase. However, because of the complexity of the systems and the long-term contracts, such projections are frequently challenging. (Holmbom et al., 2014)

Sometimes, due to the outcome-oriented structure of the contracts, the supplier must create investments prior to when the customer can begin to reap the benefits and value. In some circumstances, the service provider may have to make a larger upfront expenditure or pay more up front. However, that is inherent to an OBP because from the standpoint of investments, the service provider must invest significantly more money up front before they begin receiving payments or beginning to recoup their investment, which highlights the possibility of suffering a monetary loss if desired results are not obtained..(Hou and Neely, 2018)

### **Dependencies between service provider, customer, and other stakeholders**

Given the lengthy contracts and particular investments involved, OBP strengthens dependence between suppliers and customers. (Schaefers et al., 2021)

This aspect highlights the amount the service provider is dependent on clients and other stakeholders to provide the outcomes. Dependency is also taken into account when determining how much the service provider can impact the actions and behaviors of customers and other parties affecting the delivery of the outcomes, as well as the significance of the impacts. The service provider must tolerate the consequences as a result of other parties' failures. The crucial element of OBP known as upfront investments can also make the provider more dependent, particularly if the investments are contract specific.(Korkeamäki et al., 2022)

In their study Korkeamäki et al. (2021) continue that dependency results in paradoxical conflicts since OBP members enter into long-term contracts with mutual company objectives while concurrently pursuing their own individual business goals, for which the owners seek short-term gains. Conversely, it is evident that mutual business objectives entail that the provider benefits accordingly more the more the consumer benefits. The paradox of dependency is likely to increase as the partnership develops if the partners' area of collaboration broadens (for example, as a result of success and positive experiences).

In contrast, the service provider's business ventures outside of the OBP operations (like the selling of equipment and replacement parts) might actually benefit the OBP client. This is so because, especially in the case of highly specialized technological niches, the client frequently depends heavily on the service provider's ability to deliver the results requested. The possibility that the service provider will not be accessible if the numerous risks unexpectedly emerge increases, if the service provider's independent success is only dependent on the frequently high-risk OBP customer cases:

The customer's best interests are served if the provider also has other independent business objectives to pursue in addition to the shared ones. The provider also heavily relies on the customer's independent business objectives because of how crucial common business goals are to both the customer's individual business goals and the provider's service approach. Thus, the shared OBP business goals remain to survive alongside with the unique independent business goals that each customer and provider pursue while taking distinct paths. Providers are required to pursue both of these objectives as long as the OBP relationship exists.(Korkeamäki et al., 2022)

Adding to dependency customer contributions are needed in a variety of forms for service delivery, including information, infrastructure, skilled labor, and components of whole solutions. The providers' capacity to influence customers' actions and behaviors, however, is restricted. Since the outcome of performance frequently depends on the customer's availability, they are the aspects of management that are most challenging from the providers' point of view. A clear risk factor during deployment is that the provider must bear the repercussions of events over which they have limited control. Additionally, clients' failure to succeed in their own businesses may result in postponed payments or even the termination of contracts.(Hou and Neely, 2018)

Similar to this, the provision of overall solutions necessitates contributions from various participants and stakeholders. The service provider's dependence on these other parties differs and is subject to a variety of consequences should they fail to fulfill their obligations, including delivery failure, additional costs, customer loss, etc.(Hou and Neely, 2018)

### **3.2 Requirements for the service provider**

This section presents the required features of the service provider in order to successfully implement OBP. Features are gathered from the academic literature.

### **Low uncertainty of outcome and customer commitment**

The greater the uncertainty related to the income, the greater the expenses associated with shifting risks to the service provider and, similarly, the desirability of outcome-based contracts is seen lower, despite other advantages.(Hypko et al., 2010)

The intangible nature of services frequently makes it challenging to establish objectives and verifiable outcome metrics to evaluate service success. The greater the verifiability of outcomes, the more likely results-based contracts such as OBP will be implemented. The outcome designed for the service must be verifiable in order to implement an outcome-based contract. However, this presents a number of challenges, particularly in complicated professional services. The more complicated the service is, the more challenging it is to verify the outcome. In other words, the verifiability of the outcomes reduces as the complexity in the service grows..(Homburg and Stebel, 2009)

Homburg and Stebel (2009) also add that the uncertainty of the outcome is also associated with the capability to measure the service provider's and the customer's performance. The better the process to be affected is known, the easier it is to monitor the performance of the service provider and the customer. Knowing the process further facilitates the definition of appropriate performance metrics for service outcomes. It can be stated that the increased verifiability in the service provider's operations leads to increase in the verifiability of service production. And as the level of customer behavior verifiability is increased, the verifiability of service production is also increased.

Hypko et al. (2010) present that in manufacturing industries the economic advancement might lead to increased outcome uncertainty, especially if the service provider adopts responsibility for both the operation and maintenance of the machinery or equipment. The customer transfers his market risk to the service provider in this instance since the service provider is compensated for the performance that was truly required. It is noted that the service provider has relatively limited measures to impact on whether the service offered to the customer is as successful in the market as expected or if changes unrelated to the service providers actions occur such as the customer decides to alter his overall manufacturing strategy. However, changes in the customer's demands are directly impacting on the machineries or equipment's utilization levels. (Hypko et al., 2010)

The level of uncertainty may increase even further as the service provider is reliant on customer's estimates of the projected volumes when deciding on the machinery or equipment that fits best the customer's requirements. According to the research the customer may have a tendency to opportunistically estimate greater volumes than are practical in order to achieve lower the service cost by taking advantage of the knowledge advantage

it perceives. Due to the recurring fixed costs arising from the machinery or equipment and personnel, the service provider must deal with uncertain revenues and uncertain profits as a result of the volume unpredictability (Hypko et al., 2010).

In addition, the client may increase the uncertainty related to the outcomes by failing to act in compliance with the expectations of behaving in good faith by delivering information and collaborating. Because the customer can opportunistically use the informational advantage concerning his own activities, there is a negative selection challenge in this situation. A falsified picture of the customer's operations can cause an unexpected increase in costs for the supplier. The service provider must take uncertain costs into account in their cost planning. Due of the customer's opportunistic behavior, service providers frequently adjust service rates higher than the anticipated average total cost to account for the uncertainty of maintenance expenses. Customers, however, are frequently hesitant to pay such a risk premium, therefore by setting the price high the service provider risks losing a potential customer. As a result, it is difficult to redirect the payments, and the service provider must manage additional issues that can increase expenses.(Homburg and Stebel, 2009)

To be able to lower the risk of unpredictable results due to insufficient capabilities, the customer needs to help the service provider build its capabilities in organized manner, especially regarding the required knowledge of the customer's core processes, and not just extend the payment model to the contract with penalty payments in case of non-performance. This is necessary to make certain that the service provider is truly capable of delivering the outcomes– right from the start.(Hypko et al., 2010)

### **Capability to deliver and consume outcomes**

A major operational risk factor that increases the likelihood that the provider will not deliver the desired outcomes is their inability to do so. In order to deliver outcomes using OBP, many capabilities are needed, including those for supply chain management, project management, knowledge and resource management, service and product design, data management, service delivery, and technological competence. During contract implementation, operational risk may arise from the provider's inability to deliver the perceived outcomes. (Hou and Neely, 2018)

Value is frequently co-created through networks of companies, interactions between two organizations, and buyer-supplier partnerships. According to this viewpoint by Hartmann et al, (2014), value is inherent in how different companies interact with one another and manifests itself in the efficient use of their respective resources. Customers and their suppliers ought to be viewed as co-creators of value. A company's relationship with a



client, for instance, provides access points to the customer's continuing value-creating activities. (Hartmann et al., 2014)

The operational risk that services will not be successfully delivered or that customers will not receive the intended value might be caused by the customers' inability to use the services being offered or to perform their tasks. If the customer's business processes cannot use the solutions and services that are offered, the customer will continuously demand changes from the supplier, making the delivery process difficult and complex. In addition, the customer may neglect to carry out certain responsibilities that are necessary for the delivery to be successful. (Hou and Neely, 2018)

In addition to customer's capabilities Hou & Neely have noted multiple stakeholders' involvement as a challenging element. To ensure the success of OBCs, each stakeholder must perform its specific responsibilities. However, some stakeholders lack the skills necessary to perform, which increases the risk of failure in delivering outcomes. (Hou and Neely, 2018)

### **Measurable outcomes**

Measuring the outcomes and creating a link to the payments is an essential process of a functioning outcome-based pricing model (De Pieri et al., 2022).

Prior studies have defined outputs and outcomes in OBP context as follows. Outputs are the immediate consequences of the service activity or production process itself, while outcomes are the value that the customer gets from a particular service or product (Bon-nemeier et al. 2010). Often outcomes are communicated in monetary terms but are not being measured in monetary value. However, outcomes may potentially contain components that are difficult to quickly monetize, such as results from an external training program. For instance, the running time (miles flown and tons excavated) of a machine can represent the output of maintenance work, whereas the machine's actual production might be the outcome. (Selviaridis and Wynstra, 2015)

To be able to achieve the desired outcomes and to prove the value created there has to be clear ways of measuring the outcomes (Eisenhardt, 1989). Without appropriate KPIs to gauge results, providers and customers cannot influence desirable behaviors (Fearnley et al., 2004) and on the other hand misleading outcome measurement can lead to counterproductive actions (Gosling, 2016) Naturally this all weakens customers possibilities of receiving the value expected. When supplying complicated services with OBP, a lack of contract clarity is typical, leading to significant transaction costs throughout service delivery. (Hensher and Stanley, 2010)

As well as pricing the KPIs should be outcome-based. Outcome-based KPIs are indicators that measure performance in a way that reflects the overall result or impact of the business activity. KPIs are a collection of metrics that focus on the areas of organizational performance that are most important for a project's or organization's current and future success. (Parmenter, 2010) Outcome-based KPIs are focused on outcome as traditional KPIs are focusing on measuring inputs or outputs.

Before designing the actual process for measuring the outcomes it is important to define the outcomes, metrics and targets linked to the payment mechanism (De Pieri et al., 2022). Defining an outcome means selecting what, exactly, will be measured to evaluate whether an intervention was successful (Verrinder et al., 2018). Defining a metric refers to choosing the exact method of measuring the selected outcome. Lastly, after defining the outcome and metric to measure the outcome, a goal should be defined. A goal is the end outcome that the involvement is supposed to produce to initiate the payment. (De Pieri et al., 2022)

### **Aligned incentives**

According to Hou & Neely (2018) one significant risk challenge for OBP is the mismatch between the service provider and the customer. It is required to develop alignment between the provider and the client in six areas, including goals, visions, practices, understandings, culture, and bargaining power.

There may be a misalignment between the customer's and the provider's long-term and short-term goals. Both sides must work to develop alignments because, because in the short term, the results and solutions expected by the customer and the service provider may be significantly different. Stability is one of the key factors that the customer needs in the long run. However, from the perspective of the service provider, some flexibility should be allowed, because contracts based on OBP typically continue for years and because inflexible contracts are very risky for the service provider. In addition to the commercial risk, operational risk might occur during service delivery when the service provider finds out that the customer's actual goals differ from the goals it originally set, which makes the provision of the service more complicated. (Hou and Neely, 2018)

When the service provider is among the first to offer OBP, it may require some effort to change customers mind and get them invested in the OBP. The absence of shared visions also indicates that the service provider and the client have different perspectives on the behavior of OBP and the dynamics of the connections. From the standpoint of certain providers, the significance of OBP is to establish realistic guidelines for implementations and to foster collaboration. Some clients still have a traditional mindset and

view contracts as inflexible, non-negotiable obligations. In this way, if an issue arises, the provider considers working with the client to find a solution, whilst the customer considers returning to the contract and reviews the contract. The customers that do not completely embrace OBP do not view the provider as a partner and do not collaborate with the provider in an open and collaborative manner. Therefore, inconsistencies in perspectives on servitization, the nature of OBP, and the structure of the connections result in commercial risk during contract negotiation and operational risk during implementation. (Hou and Neely, 2018)

### **Formal control is aligned with informal control**

The challenges related to control consist of a paradox between strong formal control, which is endemic in OBP, and the informal control required to establish and preserve a long-term relationship leads to the paradox of control. The contradictory tension arises from the fact that trust and other forms of informal control would not be necessary if perfectly detailed contracts were possible. On the other hand, written contracts would be unnecessary if informal control could totally avoid opportunism. The tension is contradictory because performers can't really decide between the two in practice. (Korkeamäki et al., 2022)

As Korkeamäki et al. mentions, contracts are a form of formal control. Hou & Neely (2018) have identified aspects that makes creating feasible contracts challenging. When compared to traditional pricing models, contracts relating to OBP can be extremely complex and involve a number of factors that need be considered when the contracts are made. Additionally, the service provider and the client must think about how these variables will be impacted by outside variables like product prices and broader financial conditions, the amount factor might change, and how those changes might affect the results. Given the complexity of the contracts, it is difficult for the service provider to completely comprehend the effects of their choices and estimate the probability of risks. As a result, the provider may make bad choices in the contracts, increasing commercial risk. (Hou and Neely, 2018)

Control is especially challenging because when switching to OBP, many service providers are lacking the experience, expertise, and capacity to implement OBP. They lack data and information necessary to back up their choices on some of the most crucial matters, for example pricing models, KPIs, service solutions, cost analysis, and risk assessment, and the service providers are not conscious about the ideal negotiation procedures to adhere to or the possible effect of their decisions. In the contract, the provider

may make inappropriate judgments that prove to be extremely risky when put into practice. For instance, not all KPIs that are implemented to track outcomes are always beneficial for the customer's value to be realized. (Hou and Neely, 2018)

### 3.3 Implementing OBP – Industry best practices

While OBP in SaaS context is yet not very widely studied in academic publications there are some commercial publications about the topic. These commercial publications have studied their clients and SaaS industry overall. Based on these publication key capabilities for implementing OBP in SaaS environment is gathered in the section below.

#### The outcome can be easily understood by customer

OBP is more likely to be successful if a project has a small scope, like the selling of a home or the installation of a new IT system that can save the customer money in a very concrete way. The seller usually makes sure that it is not accepting a lot of risk that is beyond its control. For example, maintenance tends to be an important part of agreements involving a complex machine or system. (Raju and Zhang, 2010)

The reasoning behind selecting outcome-based pricing has to be clear for customers to understand when considering providers offering. Either they clearly want that metric to grow for their business or they inherently understand that the supplier has costs associated with a resource tied to the outcome metric, or both. Research methodology and materials. Examples of companies using OBP, and their metrics are described in Table 3.

**Table 3 Outcome metrics used as a pricing base (Lah et al., 2022)**

Company	Outcome metrics
HubSpot Marketing Hub	Number of emails captured
Snowflake	Compute resources, data volume
DropBox	Storage capacity
OpenTable	Per-seated diner booked
Cubic NextBus (transportation)	Number of bus riders, bus on-schedule rate
A "price optimization application" in specialty retail	Checkout basket size, increased inventory turn/stock-keeping unit (SKU), increased basket size per customer visit

**High importance of the outcome to the customer.** The customer has to be able relate to the selected outcome metric and to be able to share the outcome related goals with provider (Lah et al., 2022). The outcome of the agreement must also be more valuable to the customer than the actual sale's fee (Raju and Zhang, 2010).

Interest towards OBP often arises when potential buyer has major interest in the potential gain. Customer commitment is central to be capable to deliver the perceived outcomes and gains because in most cases cooperation from customer or user is required. A shared future benefit ensures both parties commitment to the outcomes in a way that a traditional pricing e.g., fixed price would not.(Raju and Zhang, 2010)

**The ability of sales to communicate the value of the outcome.** In the conventional paradigm, pricing is directly and linearly related to the price of the good or service. Pricing under a subscription model is connected to discrete units of output supplied and depends on the value presented, or on the number of units consumed. Pricing in an outcome-based company model is determined by performance or results. When the value can be clearly communicated the time and resources needed for convincing the customer is reduced. By selecting the right outcome metrics, the customer can easily understand the pricing and value of the potential deal.(Lah et al., 2022)

**The ability of sales to communicate the value of the outcome.** In the conventional paradigm, pricing is directly related to the price of the good or service. Price of a traditional SaaS pricing models is connected to discrete units of output supplied and are dependent on the provided value, or the volume of products consumed. Pricing in an outcome-based company model is determined by performance or results. When the value can be clearly communicated the time and resources needed for convincing the customer is reduced. By selecting the right outcome metrics, the customer can easily understand the pricing and value of the potential deal.(Deloitte, 2021)

Deloitte's report (2021) also notes that while customers are periodically charged based on consumption using the subscription approach, revenue is recognized after the product or service is purchased in using the traditional pricing models. As the service is used and billed, revenue is recognized. The amount of money accumulated determines the level of success. However, the management of this process from both a business and accountancy point of view is difficult for service providers due to the level of complexity.

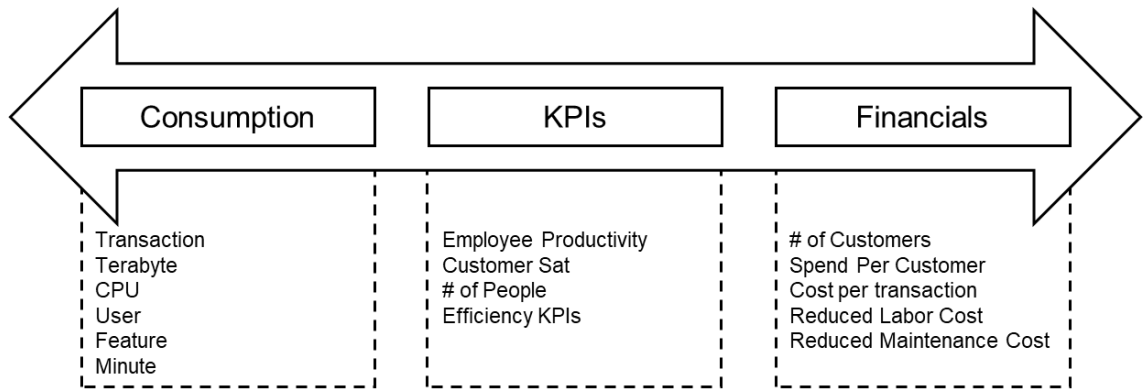
**The outcome scales up with the increased implementation and follows a growth trend.** The outcome grows naturally as the adoption of the solution grows. A simple example is that more value is realized when more customer employees start using the solution.(Lah et al., 2022)

Also, if possible, the outcome should be linked to a growing trend. A good example of this is mobile carriers. They have shifted their billing from voice minutes and SMS messages to the amount of data consumed. Companies design the outcomes in a way the trend will naturally feed the growth.(Lah et al., 2022)

**The outcome is measurable and can be reported.** Measuring outcomes adds concrete into value proposition. Reporting the measured outcomes enables clear communication of the realization of customer's desired outcomes. Without measurable data the whole concept of outcome-based pricing wouldn't be able to success.(Lah et al., 2022)

Even when the result can be easily measured, it is crucial to make a decision in advance regarding who will conduct the measurement. An example of measuring related disagreement is a contract between media entertainment company Disney and a video rental chain Blockbusters. Disney-Blockbuster agreement collapsed because Disney claimed that Blockbuster had failed to uphold its end of the arrangement. Disney sued Blockbuster in 2002 for selling its DVDs earlier than promised and for inadequately marketing them after several years of productive performance-based collaboration on video rentals and sales. Disney alleged that these breaches cost the firm \$120 million in lost income. (Bloomberg, 2003) OBP generally doesn't function well for longer-term complex contracts or a sale where there isn't a single definable conclusion, with this measurement issue being possibly the main cause (Raju and Zhang, 2010).

According to Technology Services Industry Association (Lah, 2014) a clear definition of the type of business outcome provider is actually producing for customer is one of the obstacles that makes providing OBP difficult. After scanning the industry for outcome-based services, three distinct types of outcomes can be identified for technology companies to deliver to a customer. Examples of OBP used is presented in Figure 1.



**Figure 1 Outcome Types with examples of measurable pricing mechanisms (Adapted from Lah, 2014)**

**Consumption-based outcomes.** Quantifying the realization of the outcome is based on measuring the actual consumption of the service. For example, the number of invoices that pass through the AP department can serve as a base point for value measurement.

**KPI-based outcomes.** The results are measured with a separately defined measurement system. Key performance indicators (KPI) describe the performance of the delivered solution. For example, the degree of automation of an AP department can be measured with a KPI, and the price paid for the service is tied to the measurable degree of automation.

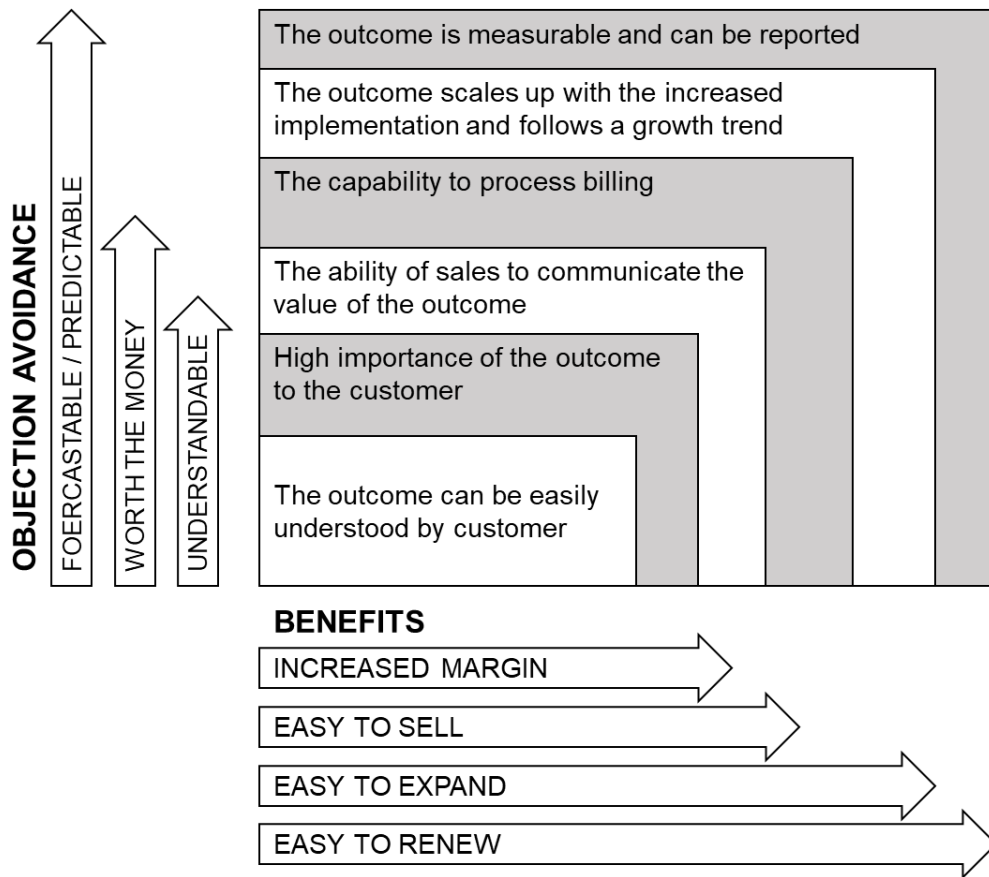
**Financial-based outcomes.** The achieved outcomes are measured in financial numbers. For example, tracking the labor hours saved by automating the AP department can serve as the basis for the price received by the supplier.

**Table 4 Outcome offer examples from the technology industry (Adapted from Lah, 2014)**

Offer type	Outcome Type	Pricing mechanism
Premium Support Offering That Minimizes System Downtime Due to Security Risks	Type 2: Outcome (KPI Improvement)	% Reduction in downtime
Managed Service for System Admin	Type 1 Outcome (Consumption)	% Of Volume (Transaction Fee for Every Add/Move/Change)

Professional Services Project That Results in Specific Cost Savings for Customer	Type 3 Outcome (Financial Impact)	% Of Outcome
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Focusing on these key capabilities, a technology provider can achieve the following customer-facing objectives: The customer recognizes the business benefits of the service; The customer believes the solution is worth the investment.; The customer will be able to forecast the benefits of the solution on their business. Industry studies also supports the academic studies findings in unlocking benefits. Benefits for the service provider found in the industry studies are increased margin, easy to sell, easy to expand and easy to renew.



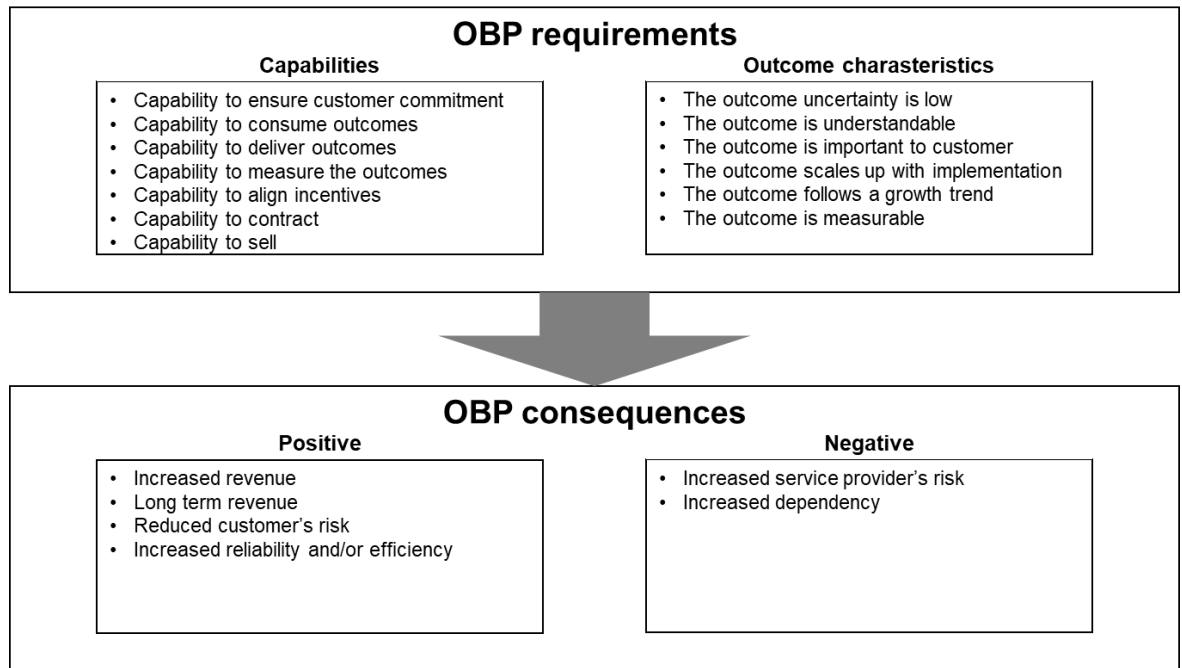
**Figure 2 Benefits of OBP (adapted from Lah et al., 2022)**

### 3.4 Literature review summary

Academic OPB literature is mainly focused on manufacturing and maintenance industries. SaaS studies were not yet to be found except for commercial reports. However,



the findings of these two sources suppress each other, and OBP features in the manufacturing industry can be interpreted as also valid in the SaaS environment. To summarize the findings from OBP literature a framework has been created and is presented in Figure 3.



**Figure 3 Requirements and consequences of OBP from the literature**

Literature review reveals that OBP is a complex pricing model, and it requires different capabilities to successfully implement the pricing strategy. The capabilities recognized in the academic literature are complemented with industry experience presented in the section 3.3. The outcome characteristics identified in the academic studies are being supported by the industry experience. In the Figure 3 the outcome characteristics have been highlighted and they as they have an important role in the profitability and the capability to communicate value provided. When evaluating organizations capacities to measure outcomes all the outcome characteristics should be evaluated separately.

Potential consequences of OBP can be divided into positive and negative consequences. Positive consequences are potentially higher profits than with traditional pricing approaches. The nature of OBP leads to longer average contract periods which leads to longer revenue streams. Even though contract periods are longer customer risks are less significant This is in contrast to traditional pricing where customers tend to avoid long term commitments. In OBP customer will not pay unless the outcome is delivered, and

this lowers the customer's monetary risks notably. Customer's operational risks are lowered by the increased product reliability that comes with OBP: OBP encourages the service provider to create a reliable and efficient product in order to minimize its own costs and other recourses in delivering outcomes.

The consequences that can be seen as negative are the increased service providers risks and dependency on customer and other stakeholder. Service providers financial risk arises from the uncertainty of delivered outcomes. If provider is lacking capabilities to assess the recourses needed to deliver the outcomes, the capabilities to provide the outcomes or the delivery time is longer than expected, is there a risk of unprofitable deal due to delayed and/or decreased revenue. It is also recognized that lack of capabilities to contract the OBP or measure the outcomes puts the service provider at risk.

## 4. METHODOLOGY

### 4.1 Description of the case company

The case company offers its solutions to a wide and international group of customers. The company employs more than 1,300 experts in fourteen countries. The goal of the personnel is to help the company's customers automate their invoicing process, improve the visibility and management of the use of their funds, and reduce their carbon dioxide emissions by increasing the share of online invoicing instead of paper invoices. The company's open network has users from 180 countries and connects more than two million buyers and suppliers worldwide.

The company has undergone a SaaS transformation over the last few years and the journey to the cloud has essentially been completed. At the end of 2021, almost 80% of the company's turnover was related to cloud-based software services and 18% to related consulting services.

The company's main products are: an electronic procurement solution that automates the entire procurement process, from managing catalogs and orders to approval of workflows, receipt of purchase orders and orders, and cost analysis; The world's largest open business network for working with suppliers, which connected more than 2 million companies and organizations globally in 2020; As well as an invoicing automation solution, the purpose of which is to remove manual and paper processes from the company's invoicing functions. Advanced automation reduces human work and errors and makes processes more efficient. The company's solutions increase the automatic processing of invoices by controlling, coding, combining and approving invoices automatically. The Case company supports the impact of its solutions with the consulting services it offers.

The just ended SaaS transformation has started a rethinking of pricing models and therefore the case company is very suitable for the idea of this research. Case company has one ongoing OBP pilot case using AP automation in Finland and therefore the framing of the study is executed as follows. In this study, the pricing strategy will be examined mainly from the perspective of the company's Finnish operations and market. In addition to geographic framing the study is also limited to the AP automation solutions.

## 4.2 Nature of research and methodology choices

Research methods have been chosen based on the aims and philosophical starting points of the thesis, which aim to answer the research problems. The research can be carried out traditionally either as qualitative, quantitative or as a multi-method research combining these (Efron and Ravid, 2018). This study is carried out as a qualitative study by collecting qualitative observation data in two different parts: literature review and interviews. With the help of a qualitative approach, the aim is to find facts by means of comprehensive information acquisition (Hirsjärvi et al., 2009). Qualitative research often uses observation, in-depth interviews, and analysis of various materials (Efron and Ravid, 2018).

Case studies are an effective tool for learning about people, groups, organizations, social issues, and related phenomena. When there is a need to comprehend complex phenomena, method is adopted since it enables the researcher to maintain an all-encompassing and practical viewpoint (Yin, 2014). A case study, in the opinion of Johannesson and Perjons, should be in-depth, take place in a natural context, and should concentrate on a single incident, relationships and processes.

Case studies are divided into single case and multiple case designs by Yin (2014). Reasons for choosing a single case study include the fact that it is crucial, uncommon, typical, suggestive, or longitudinal. In a multiple case design, various instances are chosen to determine whether the results of one case are repeated in others, increasing the degree of generalization. However, compared to a single case study, several case studies frequently need a large increase in resources. Case studies can also be categorized by splitting them into holistic and embedded designs according to the quantity of units they study. While embedded design looks at numerous units, holistic design concentrates on looking at just one. (Yin, 2014)

Depending on the study's objective, Johannesson & Perjson (2014) classify case studies into three categories: exploratory, descriptive, and explanatory. An exploratory case study concentrates on developing questions or hypotheses that can be used in future research. A descriptive case study's goal is to give a thorough description of the event under examination and its surroundings. A descriptive case study intends to create a thorough and in-depth description of an event and its surroundings. (Johannesson and Perjons, 2014)

The descriptive embedded single case study is the main methodology chosen to be used in this study. A single case study can give a more thorough understanding of the phenomenon (Yin, 2014). The selection of a single case study can be justified based on this

study's aim is to provide information for case company and because there nature of a thesis limits the resources available. The study examines a variety of important essential stakeholders and functions, making design an embedded case study. The study's goal is to enlighten; thus, it evidently has a descriptive tone.

### **4.3 Data collection**

The collection of empirical data for this thesis is divided into two parts. First, Outcome-Based Pricing was be investigated through an integrative literature review. The aim of the literature review was to both develop and evaluate existing theory, but also to build a new one. The purpose of the literature review is to build an overall picture of a specific entity. (Salminen, 2011) In the first empirical part, the aim was both to create an overall picture of SaaS pricing strategies and Outcome-Based pricing and to identify the most significant problems and practices related to the phenomena. Later, the material found through the literature review is enriched with semi-structured thematic interviews from the perspective of the target company.

#### **4.3.1 Literature review**

The purpose of the literature review is to study the research done earlier. Typically, a literature review can be either a descriptive literature review, a systematic literature review, or a meta-analysis. The descriptive literature review, on the other hand, is divided into two main methods: a lighter narrative and an integrative literature review. An integrative literature review has many features of a systematic literature review, but it offers a broader view of the literature on the topic than a systematic literature review. A broader picture of the phenomenon under study is obtained, because in an integrative literature review, different sources can be selected more versatile than in a systematic literature review. (Salminen, 2011)

An integrative literature review enables the use of a wider range of source material than a systematic literature review, which is a clear advantage in the OBP context, as versatile source material can also be found outside of peer-reviewed research articles. In an integrative literature review, there is no need to select and screen the literature on the topic as precisely as in a systematic literature review, and the types of literature can vary in the research material. (Salminen, 2011) In addition to article material, OBP-related practices are discussed with the help of, for example, publications by consulting houses specializing in the technology industry. In order to get a comprehensive overall picture, it is also essential to review these reports.

With the help of an integrative literature review, information related to the phenomenon is examined, criticized, and synthesized by means of integration, in which case new perspectives are found related to the topic. An integrative literature review is particularly suitable for researching new and ever-changing subject areas. With the help of an integrative literature review, inconsistencies related to the dynamic phenomenon can be found and corrected to better reflect the image of the times. (Torraco, 2016) This also supports the choice of an integrative literature review in the context of studying OPB.

### **4.3.2 Interviews**

In the second phase of the empirical part, semi-structured thematic interviews were carried out, which were then analyzed with qualitative content analysis. A semi-structured thematic interview is an intermediate format between a structured and unstructured interview. Semi-structured interview is flexible in nature. In a semi-structured interview, the interviewer has a set of themes and questions to elaborate on them. However, the nature of the interview is conversational, and the question body can be deviated from with the flow of the conversation. The interviewer also has the opportunity to ask clarifying questions, in which case the interview can also have features typical of a conversation. (Hirsjärvi and Hurme, 2008)

It is typical that the theme of the interview is known in advance, but the questions do not have a precise form and order. In this study the respondents were sent list of questions in advance. This approach is recommended to maximize the relevant data to be gathered (Tuomi and Sarajärvi, 2018). The respondents were selected from different operations within the case organization, and it was not reasonable to assume all the respondents were able to provide relevant information without a possibility to prepare. Therefore, the respondents were given the opportunity to familiarize themselves with the topics of the interview in advance.

The sample for the interviews were chosen using a nonprobability sampling technique. (Saunders et al., 2019) Using judgment, respondents were selected from heterogeneous groups so that the data collection process can be as varied as appropriate. It enables the interviewer to gather information to characterize and clarify the major trends that can be seen. Although this might seem contradictory, a small sample could have entirely distinct cases. According to Saunders (2019), this is actually a strength. Any patterns that do form are likely to represent the main themes and be of considerable interest and value. (Saunders et al., 2019)

The interview questions (Appendix A) were categorized into three main themes: Current pricing strategy, Motivation / Background of moving towards outcome-based pricing and implementing OBP. In the first part it was mainly discussed how the current pricing is executed and what are the main challenges. Inspiration for the questions in the first part was taken from a thesis written by Rantalaiho (2017). The second part examines the expectations and reasoning for considering OBP. And the last part focuses on more concrete factors to be taken into consideration if OBP is to be implemented.

A total on ten interviews were conducted between June and August 2022. The interviews were mainly carried out remotely via the Teams application and recorded for later review. One interview was conducted on site. This interview was recorded using a phone recording application. All interviews were conducted as individual interviews. Table 5 describes the respondent's role in the company at the time of the interview.

**Table 5 Summary of the interview characteristics**

ID	Role during the study	Location	Language
R1	Finland Direct Sales	Teams	Finnish
R2	Finland Direct Sales	Teams	Finnish
R3	Finland Direct Sales	Teams	Finnish
R4	Products, R&D and Production	Teams	Finnish
R5	Products, R&D and Production	Teams	Finnish
R6	Products, R&D and Production	Teams	English
R7	Products, R&D and Production	Teams	Finnish
R8	Proposition marketing	Teams	English
R9	Finance	Live	Finnish
R10	Professional Services	Teams	Finnish

#### 4.4 Data analysis

After the interviews, the interview recordings were transcribed using the automatic transcription tool of the Word application. The goal of transcription was to make it easy to return to interview situations. The automatic transcription of the English interviews was almost literal. The accuracy of the interviews in Finnish was rougher. However, this was sufficient, because as the analysis progressed, the interviews were transcribed literal

based on the recordings in relevant parts. By analyzing the interview material, we tried to identify phenomena occurring among the respondents and influential opinions. The analysis of the data was mainly done qualitatively. The material was divided into three entities that support answering the research questions: current pricing, motivation for moving towards outcome-based pricing, and the practical implementation of outcome-based pricing. Both consistencies and new perspectives were sought between the answers, which would help to identify the unique characteristics between outcome-based pricing and the SaaS operating environment. The themes identified from the analysis were classified in an Excel file.

An effort was made to bring depth and credibility to the presentation of the analysis also by presenting direct quotations from the interview material at appropriate points. The best quotes were comments describing an average answer, as well as opinions clearly different from the rest of the material or otherwise surprising. In order to guarantee the anonymity of the respondents, the source of the quotes was only told on a level of what function that the respondent represented.



## 5. RESULTS AND ANALYSIS

In this chapter the analyzed results from the interviews are being presented. In the first section the OBP characteristics in the SaaS environment is introduced. In the following section the capabilities suggested for the service provider are being presented and finally the risks and opportunities of OBP in B2B SaaS context are being described in the section 5.3. The results are discussed further in the section 5.4 and in chapter 6.

### 5.1 OBP in SaaS environment

The interviews complement the assumption that OBP in SaaS environment can be defined as it was defined in the chapter 3 as a contract in which at least a portion of the payments is based on some indicator of the perceived outcome. A SaaS solution can be priced totally based on the outcomes delivered or the total price may consist of several components and delivering outcomes is one the changing factors.

The potential of OBP lies in its capability to present the prices in a straightforward way. The interviews indicate that case company's customers have a keen interest in a simple pricing approach. It is recognized that the case company's current pricing methods, as its competitors and other B2B SaaS companies, can be found somewhat complicated. The level of complexity increases with number of solutions offered to customer. Also, customer environments can be complex. For example, any on case company's current customers operate in multiple countries. Subsidiary companies and multiple branch offices with varying needs adds the complexity around the business relations. It is also not that uncommon to have customers performing company acquisitions during the contract periods. OBP pricing is expected to bring new instruments to better communicate the pricing and value on potential business case when compared to more traditional pricing approaches.

Due to complexity factors in customer environments flexibility is expected from the pricing. The pricing of the solutions is presumed to flex both upwards and downwards. Case company's current products pricing is flexible only upwards. If the projected invoice volumes are exceeded, the increased volume can be handled with and additional overage fee. This approach is generally accepted within current customers. The current pricing does not include a built-in method to react when invoice volumes are falling short of the expected. The above-mentioned situation can emerge, for example when a subsidiary company is closed or a customer's industry has seasonal variation, and these situations

require a renegotiation of the existing contracts. Based on the empirical finding OBP does not directly solve the flexibility challenges but rethinking the contracts gives a chance to address the issue at hand.

The interviews complement the findings of the complexity related to the OBP environment noted in the literature. A simple and tangible OBP model can be assumed to be tempting to many customers seeking simplicity. A note that has not been recognized in the literature but was raised within the respondents is the way OBP might increase the level of complexity in customer's organization. As stated in the literature and respondents have also highlighted OBP requires actions and commitment from the customer's side. It also is in some situations somewhat difficult to forecast the precise costs of the services as the costs will realize after the outcomes have been delivered and the amount of perceived outcomes may vary. If an organization has multiple services in their IT environment that are using an outcome-based approach, the whole IT infrastructure may get overly complex and predicting IT-costs may become unnecessary challenging.

Based on the observations of a respondent it is important to understand the whole IT environment that the service is being implemented into and to have an open discussion with the potential customer about the current situation to avoid adding the complexity. It is also important to judge the strategic value of the solution to the customer. With realistic image of customer's IT infrastructure and the strategic importance of the service provided, the provider is able decide whether OBP is an applicable approach, or another pricing approach should be taken.

From the service provider's, such as the case company, point of view, complexity consists of the large amount features related to the service being produced. The challenge is to realistically evaluate the resources needed to successfully provide the outcomes and calculate the feasible price for each opportunity. In case company's current pricing it is recognized that bundling the necessary features together is a challenge. The same challenge remains when shifting to OBP. It may even be highlighted as the price in OBP is expected to include all the necessary features, but the service provider should frame the content of the contract as clearly as possible.

When designing pricing, it is easy to focus only on building an internal business case from the service providers perspective. Therefore, it is important to highlight the customer's need also to calculate and estimate their own business case for the service to be acquired. To preserve the possibility for customers the aims of pricing model design should be transparent and simple. In the context of OBP this means indisputable KPI's that are easy to understand both how the KPIs are calculate and why especially those

were chosen to be the base for the pricing. As it is important for the service provider, it is important also for the customer to understand the factors that affects the outcomes. So that the customer is able to evaluate the recourses and actions needed to meet their expectations and to forecast the development of service's price. Customer that is capable of assessing the business case is expected to be more satisfied due to realistic expectations. Whereas customers with unrealistic expressions of the services

To manage expectations and to get understanding of the extent if the project respondents have suggested a prolonged bidding process. Case company's current incentive model guides the sales to close a deal as fast as possible. Instead of hurrying to signing the contract more time should be taken to discuss with the potential customer. In the negotiation phase service provider is to evaluate the amount of work needed to produce the outcomes desired. After negotiation both parties should have a shared understanding of what needs to be done and how much resources are needed from each party. With this knowledge a decision can, be made whether the customer is willing and has the resources needed to carry the project through on their side. Service provider should also assess if it has recognized the key improvement areas in customers operations and has the capability to provide the necessary improvements to create the outcomes.

By investing into the negotiation process service provider could also lower the risk of losing profits in OBP. During the interviews, a OBP pilot was raised multiple times as an unsuccessful example. Case company has already experienced OBP with one customer. Even though the contract period is still in the beginning an interpretation can be made that the deal is unsuccessful for the provider. The case company has failed to fully understand the customer environment and therefore has been unable to contract the deal successfully. Company has also been unsuccessful with setting the baseline for measuring outcomes to be delivered. These two factors have led to a situation where many functionalities and improvements are delivered to the customer free of charge and without the improvements in the customer processes are counted as delivered outcomes. This could have been prevented with a more careful planning of the execution and a more favorable design of the contract. Content of contract is particularly important in any deal but is even more emphasized when using OBP. The features included in the offer must be clear to both parties to avoid delivering any features or benefits without getting compensated.

One aspect that emerged to support the usage of OBP is the cost of changing services. Case company's solution takes time to implement and therefore changing it to another service provider is a relatively large project. Case company also operates in such filed

that customers in practice cannot choose not to have any solutions related to AP. Therefore, OBP can be seen as a clever way of attracting potential customers into less risky relationship with SaaS provider.

## 5.2 Capabilities to implement OBP

This chapter aims to provide answers the third research question which seeks the to clarify the capabilities the service provider needs in order to successfully implement OBP. Capabilities presented in the literature review are being examined more closely and complementing factors were identified as shown in the Table 6.

**Table 6 Capabilities and the complementing factors identified from the interviews.**

Capabilities	Factors found to complement literature review
Capability to ensure customer commitment	<ul style="list-style-type: none"> <li>- Sharing importance with customer</li> <li>- Evaluating partnership</li> <li>- Supporting services</li> <li>- Managing other stakeholders</li> </ul>
Capability to deliver outcomes	<ul style="list-style-type: none"> <li>- Creating internal incentives and recourses</li> <li>- Flexibility and capability to develop services</li> </ul>
Capability to contract	<ul style="list-style-type: none"> <li>- Defining the baseline</li> <li>- Protecting profitability</li> <li>- Managing changes</li> <li>- Renewing the contract</li> </ul>
Capability to sell	<ul style="list-style-type: none"> <li>- Setting the price</li> <li>- Communicate value</li> <li>- Identify customer types</li> <li>- Investing into the sales process</li> </ul>
Capability to measure the outcomes	<ul style="list-style-type: none"> <li>- Understandable KPIs</li> <li>- Mutually accepted calculations</li> </ul>

	- Automated measurements
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## 5.2.1 Capability to ensure customer commitment

### Sharing importance with customer

*“If we are able to define where we need their (Customer’s) commitments to realize value. If we can quantify that well, then it is easier to get that commitment. So, we need to build business cases for each and every single thing I would say. It does not have to be as extensive, but it needs to be clear what the value is and what is the investment versus value.” Respondent 7*

As it is noted in the literature and in industry studies, customer commitment has a critical role in making OBP successful. In SaaS environment customers side a commitment to process improvements is needed as much as in industrial environment. This means commitment from managerial level and from the performing level.

A key aspect of customer commitment is the importance of the business case to the customer. The outcomes itself should be worth pursuing with or without the service provider. The service provider is put to a difficult position if the motivation of process improving does not come from within the customer organization. Therefore, it is important for the salespersons to be able to communicate the value of the solution offered and to make a clear easily understood business case with customer at the negotiation phase.

*“On the customer’s side, the best situation is if there are personnel there who also have the same things in their own incentive meters to measure whether we can reach the outcomes.” -Respondent 5*

As said commitment is needed from various levels of customer organization. To ensure the ownership of process development project a sponsor role within the customer organization is suggested. A sponsor is to enable the advancement of KPI improving process development in customer organization. Customers managerial personnel should also have some personal incentives tied to the provided outcome. By having this provider ensures that the customer’s focus is in improving the KPIs and developing the business case. Overall, a clear governance model between the service provider and the customer is needed.

### Evaluating partnership

Even though capability to contract is seen as one of the key capabilities in using OBP informal commitment has a vital role in OBP as well. As the success of OPB is dependent

very dependent on customer's actions (based on the interviews as much as 50-50 rate between customer's and service provider's actions) a relation between the service provider and customer can be seen as a partnership or at least having lot of partnership like element. Partnership requires mutual trust even without contractual statements.

*"In my opinion, it (OBP) binds us, and many customers hope that we would not only be a software supplier or a technology supplier, but that we would be a part of the customer's process and process development. Constantly present to support, consult, bring out the know-how from our hundreds of other customers. We advise and guide the customer so that they get as much benefit as possible from our services combined with more efficient processes."* -Respondent 6

Term partnership is found contradictory and challenging due to the ambiguity nature of the term. Respondents from case company have diverging views about the term and the importance of OBP. Arguments supporting partnership emphasizes the possibilities of service improvement with shared knowledge and open communication. According to experience, customers are increasingly willing to outsource their process development work to their service providers. Although not all customers want to outsource their process development, many still expect the service providers to support the development of their operations. However, it is important to consider whether the partnership truly benefits both parties instead of overloading the relationship. Arguments in favor of strategic partnership as well as comments questioning it emerged in the interviews.

*"Few customers are looking for a supplier these days, yes, it's more of a search for a partner"* – Respondent 2

From the sales point of view partnership is intriguing. Interviews with sales representatives suggests that customers are increasingly looking for a partner instead of traditional provider. A deep partnership is also found as a potential measure to improve providers understanding of customer's business environment. An increased level of knowledge ensures a successful delivery of outcome but also enables an improved product development and possibly even inspires new product innovations. When successful partnership forms a positive cycle that feeds both parties. From suppliers' point of view this increases customer satisfaction and loyalty potentially leading to a longer customer relationship and increased revenues.

Some of the respondents indicated that the importance of partnership may also be over-rated. The term is often used as a base for marketing in SaaS business and B2B business in general. The real reasoning for partnership and the realization of it is often vague.

True partnership requires lot from both parties and therefore it is suggested to evaluate the benefits and requirements related to it.

*“I mean partner is one of these words that vendors like ourselves and sort of every supplier wants to throw around, right and procurement is talking about though we need to have partners not suppliers, but it's easier said than done because you can only manage that many partners and I think we need to also be cognizant of where we are in the food chain.” – Respondent 8*

As respondent 8 said, partnership takes a lot of resources from both customer and service provider. This can be interpreted that customers can only have a certain number of partners. Not all the service providers and other supplies can be truly partners. Respondent adds that customers are engaging partnership with the service providers delivering strategically most important services.

From providers perspective this increases the expectations for the revenue to be received and customers tend to expect higher value for their investments. It is also an essential to evaluate the products actual impact on a strategic level. Whether the solution provided can make a strategic difference when taking into account customers entire IT architecture.

### **Supporting services**

As an alternative to partnership case company offers consulting services to support customer's commitment and success. Consulting services ensure that the solution is used to it maximum potential. The improvement of service usage and implementation of new features and functionalities is a continuous process. As the maturity of solution implementation grows throughout the contract period the value of consulting services comes from the capability to support customers- By suggesting best practices that suits the current state of the improvement project and customer needs in almost real time consulting aims to feed the improvement process and to accelerate the delivery of the outcomes. Respondents were supporting the idea of selling consulting services with all new OBP deals. Many of them even saw it as a mandatory for the success of OBP. A possibility of using consulting services as an upselling possibility is also raised by the salespersons.

*“I have to buy continuous consulting and that hopefully then improves my usage and then I have to pay more for the solution as well. That sort of would be a bit annoying to me. I mean, I would say, well, you get paid because I use the solution better, so I should get the consulting for free.” – Respondent 8*

On the other hand, it is questioned whether the customer sees the value of consulting services or if they see it as an extra cost and a way for the service provider to increase

their profits. As the base idea of OBP is that the service provider works with the client to deliver outcomes as well as possible. Thus, the extra costs from consulting services may be hard to justify. It is quite paradoxical if the customer must pay for the services enabling the improvements in delivering outcomes and also from the improved outcomes. In conclusion consulting service is seen as a good way to strengthen the customer commitment and ensuring the process improvements but the sales arguments and pricing of it has to be delicately considered.

### **Managing other stakeholders**

*“If we have low-quality data, for example low-quality scanned paper invoices, then we are not able to increase the degree of automation”* – Respondent 3

Other stakeholders, such as customer’s suppliers, are a third party that can affect the success of the deal. An example from the case company is that the channels via invoices are delivered to the customer affects the level of automation to be reached. If customer’s supplier uses physical invoices or the invoices sent to the customer constantly has errors, automating the invoicing process is very challenging and human interaction is needed. This prevents the service providers from delivering the promised outcomes which in case company’s situation could be higher level of automation. For service provider it is impracticable to affect these suppliers. It is merely at the risk of customer to result a change in the way these suppliers send their invoices. From automation point of view the most important change pursued is transformation from physical to electrical invoicing channels. These challenges need to be addressed beforehand and clear rules of operating with third parties has to be set with the customer at the very beginning of contract period.

## **5.2.2 Capability to deliver outcomes**

The interviews supported the general characteristic of OBP found from the literature, the success of case company’s service is highly dependent both on the service provider and the customer. In this case service provider is responsible of configuration of the solution to try to maximize the outcome. The provider is also responsible for training the customer organization to utilize the offered solution.

The service provider is also responsible for consulting and supporting the customer in enhancing its internal processes to make a positive impact. This is done throughout the whole contract period. To succeed in this, resources with necessary knowledge are



needed from provider to be focused on serving the customer and advancing the customers process development.

### **Creating internal incentives and recourses**

*“We need to know everything about the customer and the processes to unlock most of the value that we can deliver” – Respondent 7*

In the previous chapter the importance of customer commitment was discussed. Evenly as important as that it the service providers commitment to delivering outcomes. Case company does not currently have KPIs for its own performance that are tied to the outcome KPIs. Respondents identified that incentives need to be developed to every function from sales to service support that are needed to deliver the outcomes. Generally, it is also recognized that resources from all the necessary functions need to be available from the service provider’s side when needed. It is mentioned that unavailability from service providers side has affected the success of case company’s previous sales cases and customer satisfaction. In OBP the role of recourse availability highlights even more because resources from the customers side are being demanded as well and customers should not be put into a position where they feel like they are the only ones putting effort into the realization of outcomes.

*“The base charge should be such that it is profitable for us as a company and profitable for me as a seller to sell. And then there can be some additional incentive because the seller is not necessarily able to greatly influence how the degree of automation starts to grow.” – Respondent 2*

The incentives for the salesperson are largely determined by the approach chosen by the company. There is some inconsistency among the respondents whether sales should be encouraged to focus on selling OBP services or OBP approach should be used as special case if needed. If company wants to focus on selling OBP, based on the respondents from sales the OBP cases should have an extra incentive that makes it more tempting for salespersons sell it instead of using traditional pricing. This approach steers into offering OBP even though the sales process would be more demanding and longer than using traditional pricing approaches. Dependent on the method used to calculate salesperson’s compensations there might be more uncertainty for the salesperson. Many of the respondents felt that OBP should be used only if needed for example in a situation where customer demands OBP. If this approach is selected, no extra incentives for sales is needed.

*“I wouldn't change it that much, that pricing is always based on outcomes. I think it should be an option and the salesperson's professionalism is to know that it might make sense for customer in this competitive situation to offer such a model.” – Respondent 3*

In both cases the commission for salesperson should be redesigned. Currently case company's sales compensation is calculated based on the annual recurring revenue, ARR. Salespersons are compensated with a certain percentage of the first years ARR. This approach works well with traditional pricing where the incomes throughout the contract period are known at the contract signing phase. With OBP the value of business case is dependent on the outcomes delivered and therefore the prediction of the total profits at sales phase is more challenging and ARR should not be directly used as the base for compensation.

*“We have to form estimates of where we will get with this degree of automation” – Respondent 3*

From the interviews it can be clearly interpreted that the compensation should be based on an evaluation of the sales case's value and the compensation should be paid within the same time window as with other pricing approaches. An alternative to that idea would be compensation based on the actual value realized. The respondents agreed that even if this approach were fair, it would still pose too many challenges such as people not working at the case company when the true value of the sales case can be counted, and commissions paid.

*“What can be challenging is to narrow down the personnel who will actually work for it (achieving the outcomes) ...you have to think about what is the function that works to get to those results and then in some way be able to reward them as well.” – Respondent 5*

Another function raised by the respondents when discussing the internal incentives were the professional services. This covers the consulting services and other supporting services that ensure customer success and satisfaction throughout the whole contracting period. Key challenge is to identify and evaluate accurately the parties and the level of their effect within the service provider. The incentive model and internal KPIs should be developed so that the employees have true possibility to affect the development of their own KPIs and the KPIs effect is in line with the weight of the employees' actions to the delivery of outcomes

*“The goals of the success plan should be emphasized to the project organization at the beginning of the implementation project to be able to prepare the customer for successful usage instead of just focusing on getting the service up and running” – Respondent 10*

In addition to sales and professional services it was noted that the function performing the implementation of the software has also a central role in the process. It is important that customers are being guided straight from the beginning of the delivery projects. This is perceived to accelerate the achievement of the desired outcomes. Currently the project organizations incentives are related to the delivery time and customer satisfaction. The project organization ought to have outcome also outcome related incentives to ensure the development of KPIs from the beginning of the contract. More commonly it is noted that if OBP is implemented widely into the service providers sales, the whole organization needs reorganize their approach to working. To generalize, all tasks done within the service provide should aim to better delivery of outcomes. Employees and functions should transform from focusing on their individual measurements and incentives to more common companywide improvement targets.

### **Flexibility & capability to develop the service**

*“If it is assumed that our systems would be really flexible and we could launch new (pricing) models really quickly, then maybe it would also be worthwhile for us to test different models more and how they work in practice.” – Respondent 5*

A need for multiple pricing models is recognized within the case company. All the pricing options would not be used constantly with all global customers, but it is important to have options. Currently case company is piloting some new pricing models and solutions, but the piloting process is heavy, and it requires lot of manual work for example in billing. Therefore, it hard to scale the new approaches from pilots to full scale usage. With new pricing method a possibility to more flexible processes within the service provider can be designed and the provider could implement more approaches into its toolbox.

*“The business understanding of entire company is expected to raise with OBP. Aim for better customer business understanding and improvement of customer savings should be integrated into our company culture” – Respondent 1*

As new innovations in pricing are needed, new product innovations are welcomed with outcome-based approach. Also, an enhanced product reliability and efficiency was recognized as one of the potential consequences. This potential is also noted within the case company. The OBP approach is seen as an activator for internal process and for product improvements and innovations. New offerings, such as data based best practices and statistics that can be shared with customers to improve their processes and operating even furtherer, can be developed, and used in upselling and enlarging the relationships with the customers.

### 5.2.3 Capability to contract

The capability to contract the OBP deals is raised in the interviews as an important aspect to be able to be profitable. Main issues relating the contract recognized were the baseline setting and the customer commitment.

The importance of contracting capability is raised both in the literature and in the interviews. Korkeamäki et al. (2022) mentioned the paradox between formal and informal control.

#### Defining the baseline

*“How to define the baseline? Not only from a number point of view, but also from a functional point of view” – Respondent 7*

Setting the baseline is crucial for the profitability of the deal. Baseline is the level of customer's operations at the beginning of the contract period i.e., the level of automation in AP process. Based on this estimated level the outcomes delivered and KPIs measuring the outcomes are improved. Baseline set too high leaves the service provider small room of improvement especially in the case company's situation where the profitability increases by improving the KPIs set to measure the outcome. With a small gap between the baseline and the actual achievable level the expected returns remain small. Also, the closer to the estimated top level reached the more difficult it is to make improvements. To simplify, more work must be done to achieve any improvements in the KPIs when the theoretical maximum level is close for example 90% automation level.

As for baseline set too low in the beginning of the implementation causes the KPIs to improve in a too fast phase. As the price is tied to the KPIs this is seen as an issue from the customer's point of view. Customer may not have budgeted for such early price increases and the contract can be seen as unfavorable and unfair. This causes a decreased customer satisfaction and endangers the entire customer relationship. Customers may also stop putting work and recourses into the development of their own processes to slow down the increasing prices. Setting and evaluating the baseline is seen as a sales capability and the sales role is discussed more

#### Protecting profitability

*“In some way, we should also contractually get that customer committed, because otherwise there is a big risk that we will be a little bit alone” – Respondent 5*

On the other hand, the service provider's interest is in protecting its profitability. With possible sanctions to customers the involvement and commitment from customers side

could be secured. If customer fails to carry out the tasks assigned to them by the provider, the outcomes will not realize in such scale the provider has predicted. When the levels of the KPIs measuring the outcomes will not improve the provider will not be paid. The sanctions will compensate the loss of expected incomes to the provider.

This creates incentive for the customer to engage into the relationship but also increases the risks for the customer. In situations where customer can not affect the availability of its recourses or if it has misunderstood the actions needed customer may end in a situation where the outcomes, the value, customer expects are not delivered but significant investments are still made. This will lead to decreased customer satisfaction.

*“If we start building a partnership and at the same time start talking about fines, it resonates a bit badly... ..in service production, of course you should and inevitably have to accept unformal commitment” – Respondent 6*

One thing to evaluate considering OBP contracts is the message the service provider wants to send. The strength of OBP is in its partner like relationship between customer and provider. It is also in many cases used to communicate provider’s trust in their product. So, with that in mind the possible sanctions set for customers and additional fees included into the contract may send out a negative message. It is noted in the interviews that the customer should primarily be encouraged to take actions instead of threatening with sanctions. It is also questioned whether the customer is willing to accept any kind of sanction statements into the contract.

### **Managing changes**

*“There is a threat that the client will throw key resources to other projects, despite the fact that the OBP pricing model has been mutually agreed upon. There may be a situation from the customer’s side where half of the company is suddenly sold or another company is bought, and the number one priority is the implementation of the basic system function in these new purchased companies at that stage.” – Respondent 1*

Case company’s customer environment is very dynamic which causes challenges in the implementation of OBP strategy. Respondents have identified that customers have changing priorities and resource availabilities throughout the contract period. Changes can be related to personnel, company acquisitions or other initiatives. Changes in personnel especially in managerial positions may case shift in customers priorities. This may lead to a reallocation of the recourses needed to improve the KPI’s of case company’s services. This exposes the case company to a risk of decreased profits. Company acquisitions and mergers are very typical in case company’s customer environment. Such changes are large in nature and require time and recourses. In such situations recourses

may not be available to focus on developing KPIs or the development of KPIs is not in customers interest anymore. At best this causes a delayed business case for provider and losses at worst.

Actions such as a merger often initiates changes in customer organizations. These changes may have an impact on case company's service and the outcome provided. For example, an ERP-system change is a large operation that affects the entire customer organization and takes a lot of time and resources. Such event inevitably delays the development of KPIs that are tied to the OBP. Customers may initiate change processes even if there are not any other major changes going on in their organization. The effects are still mainly negative on the development of KPIs. Therefore, it is important for the case company to have matters to ensure customer commitment and adequate recourses to be able to affect the realization of the outcome throughout the whole contract period. It is also important to agree on a contractual level how changes in the customer's operating environment affect the compensation to be paid to the service provider. This is important especially when changes prevent or weaken the possibilities of delivering outcomes.

### **Renewing the contract**

The length contract period is currently three years. Based on the responses in this time it is possible to affect the customer's processes and improve the KPIs. A challenge may form at the renewal situation when the contract period comes to an end. The nature of the challenge depends on the success of the outcome deliveries. If the service provider has not been able to take the actions to make the improvements needed it can be questioned from customer's side if the provider can do so during the next contract period and may be reluctant to continue with OBP as it requires recourse investment also from customer's side. On the other hand, if the customer has been unable to make the changes suggested by the service provider and feels that the outcome based is too complex or burdensome and therefore is not willing to continue the relationship as it is.

Also, respondents have recognized some challenges in situations where the delivery of outcomes has been successful. First if the KPIs are improved close to the maximum level it is questioned whether the service provider has any potential gains in the form of delivering the outcomes. Transferring to a traditional pricing should be considered in such situations. This way unnecessary complexity can be avoided and both customer's and service provider's recourses tide to the development project can be freed to more rewarding projects or tasks. This kind of situation also sets the service provider at risk of losing the customer completely.

*“Customers are willing to pay 20-30% premium from company’s services” – Respondent 1*

When the processes have been improved during the previous contract period it opens a window for customer to change the service provider. In the case company’s situation, the service provider is market leader and customers are willing to pay a premium for the provider’s knowledge and quality. Once the case company has supported the customer to improve their processes the need for paying premium is significantly lower than in the beginning of the OBP contract period. Therefore, customers might consider changing to a more inexpensive solution and get the same benefits as the processes around the service are now developed.

## **5.2.4 Capability to sell**

Interviews reveal some process enchainment possibilities in selling the SaaS product with OBP approach. Currently case company is selling software products and product related support services as a bundle. This approach is told to have some challenges especially from the point of view of the functions providing the services. Currently the bundles are formed in a way that it does not always reflect the customer’s actual needs. Customer’s needs vary and change throughout the contract period and this is not currently considered in creating bundles. OBP is expected to ease the issue.

### **Setting the price**

*“Our overall prices are often considered extremely complicated” – Respondent 7*

Representatives highlight that customers are more and more expecting simplicity in the pricing. Instead of multiple price components such as functionalities, factors and services adding up to total price customers are looking for a single “all-in-one” price. With this “all-in-one” price customers are expecting a solution that they do not need to focus on updating or selecting all the necessary components and functionalities or managing themselves. To put it bluntly it could be said that customers are not interested how a service or functionality is executed they are just interested in the end results. This is the basic nature SaaS business.

*“More and more customers want simplicity in pricing, while they want to avoid paying for air in the contract” – Respondent 10*

On the other hand, it is also raised from the interviews that customers are reluctant to have any “air” in their prices. This means that they do not want to pay any extra for features or services they do not need. Instead of including everything possible to an all-

in-on price customers are hoping for a possibility to expand their subscription when a need is recognized. Service provider is also expected to suggest new features and services to improve customers processes and efficiency based on what is learned throughout the contract period.

*“My sense is that we're still a little bit stuck in the on prem type thinking and so we sell the features functionalities, we sell the code and then we do an upgrade, or we sort of add an additional functionality, we sort of tend to go and up sell that to customers and charge them for it.”* – Respondent 8

Currently case company has not fully adopted the approach described above. Pricing at its current state still reflects at least at some parts a more traditional software pricing where different functionalities and features are sold separately, and upselling is done by selling existing customers updates to their current solutions. This somewhat discordant with SaaS-based fundamentals. With OBP it could be possible to take more SaaS-based approach and develop pricing to a direction that guides the customers to buy and provider to sell an end result instead of single features and services.

### **Communicating value**

As discussed in the literature also the respondents felt that OBP could ease the value communication to potential customers in the sales phase. This characteristic improves over time as more customer references with OBP is created. These can be used as a proof to support the already strong communication of value offered.

*“By showing our own financial interests we will be able to convince the customer that we are serious about understanding customer's needs and improving their performance.”* – Respondent 2

If the potential gains for the service provider is communicated during the value promise becomes more trustworthy. By concretizing the service providers motives customer is convinced that the provider is taking risk and customer does not have to pay based on a mere promise of outcomes as it does with traditional pricing methods.

*“Outcome based pricing is something that I think we should consider marketing. Because I think that signals a belief in your product and that we're saying that if you don't succeed, we don't get paid”* – Respondent 8

Currently case company is not using its pricing approach in its marketing. This is typical in B2B SaaS business. The pricing is usually discussed during the sales process and the most suitable approach for both parties is negotiated. As the OBP is still relatively



new approach in B2B SaaS market and especially in case company's field, the OBP approach can be used as a new go to market strategy from the marketing point of view.

### **Identify customer types**

Case company's customer portfolio consists of different size of companies from different fields. Therefore, it is important to recognize the potential customer type for OBP.

*"Potential big gains are in large customers with hundreds of thousands of transactions and the benefits with smaller volume customer is expected to dilute"* – Respondent 1

*"The more invoices you have per year, the more useful it is to have such a highly automated solution. This is how you save working time and money. After all, this is all about the customer wanting to save money."* – Respondent 3

A majority of the respondents were suggesting OBP for selected large size customers. There were no arguments favoring the use of OBP with small or medium sized customers. A large size customer in this study's case means customers with large transaction volumes AP departments. It is estimated that these customers will be the most profitable when using OBP. Based on the respondents' perceptions there are more room for improvement in the large customer's operations. The gap between baseline and expected end level of automation set the base for the profitability of the business case. Large size customers generally have greater budgets for system investments and on the other hand they have the most to gain from improving their operations and creating savings. The gap between baseline and expected end results creates incentives for both customer and service providers take actions to ensure the successful delivery of outcomes.

*"To a certain degree, it can be generalized that if we have a larger company as a customer, they have a different way of thinking about what they expect from their service providers. In a way, they want to make bigger moves and they get a slightly bigger contracts, which have more flexibility built into them so that you don't have to negotiate for each hour separately, instead you get room to make results"* – Respondent 10

Generally speaking, large customers are more willing to invest more at once and are expecting more from the service provider. They are willing to include more feature into their contracts so that it is not necessary to renegotiate every time a new need emerges. On the other hand, large customers expect an active approach from the supplier, so that the full potential of the service for which they pay can be utilized. OBP fits this model of thinking well.

Next to the size of customer a customer maturity effects the customer's fit for OBP. Maturity of customer is noted as one aspect to assess when deciding whether OBP approach is suitable with potential customer. Potential customer needs to be willing to develop their processes' and willing to deepen their relationship with service provider.

### **Investing into the sales process**

An OBP approach requires changes to sales process in order to fully function. Current incentives of case company guide sales to close sales case in an early stage of the negotiation process. When using OBP this approach increases providers risk further because the factors affecting the success of the service are not fully examined. Instead of pushing sales for closing the deal the service provider should invest time in the negotiation and sales process. In the negotiation phase the state of customer's processes should be closely evaluated. This is done to give the service provider a realistic image of what is needed to be done in order to be able to succeed in delivering the outcomes.

*"The duration of the sales phase should be extended from the current one quarter to two quarters to evaluate what is needed from the service provider and from the customer"* – Respondent 10

Time spent analyzing the potential and workload of new customer lowers also the risk related to customer's commitment. After a comprehensive analysis of customer's current state and future needs a realistic assessment of the recourses and commitment needed form customers side can be given. This assessment could be used as a base for the contract and the risk of recourses not being available is lowered. Also, if customer is unable to commit and deliver the recourses needed during the process the outcome-based approach can be abandoned and a different approach is to be used with customer.

*"It would be nice to be able to set the baseline before we start the implementation project."* – Respondent 7

It is also noted that not everything can be identified during the sales process. There are many targets of development to be raised during the contract period. This creates challenges in setting the baseline for the measurements to be done. Baseline reflects the current state of the customer's operations. Currently case company is setting the baseline after the implementation process is finished and the services have been used for a while. This enables the provider to use its own metrics to evaluate the baseline and to start improving on that. The negative side of this is that some possible profits are lost when using this approach. It is expected that the customer's process is improved already when the solution is implemented, but this improvement does not create any revenue for the provider. Any improvement in the customer's process that does not create outcome-

based revenue reduces the provider's total profits. Therefore, a possibility to set the baseline before the implementation is noted in the interviews. As said this approach could increase the potential profit of OBP.

### **5.2.5 Capability to measure the outcomes**

As said earlier measuring the outcomes have a crucial role in OBP: This is recognized by both the literature and the respondents.

#### **Understandable KPIs**

*"I've seen companies sort of use savings as a as a metric and sort of saying that we split the saving. However, there you always end up with a discussion on how do we actually calculate this saving? And when do we get paid?" – Respondent 8*

Outcome metrics or KPIs are to be designed so they can be easily communicated to customers in the sales phase. This requires the KPIs to be easily understood and relatable by customers. In other works, the KPIs have to be already in the potential customer's interests. This way sales have will have less troubles in convincing customer. In case company's case the outcome desired it the reduced amount of manual work done related to accounts payable function. before the OBP approach can be launched to a wider audience.

For OBP the number of metrics should not be large. And the metrics must be very clearly defined. For example, if saving time is the goal of the outcomes the factors causing saving should be identified precisely i.e., in which parts of process time is saved or how much invoices is manually handled, and the and the KPIs should be set to measure those instead of some general assessment of time saved at AP function.

In the interviews KPIs are suggested to divide into main KPIs and sub-KPIs. Main KPIs represent the desired outcomes as well as possible i.e., the level of automation. Sub-KPIs on the other hand are the factors affecting the actual outcomes. It is pointed out by representatives that the amount of KPIs is to be kept low and the measurements simple.

The respondents are agreeing on that KPIs measurement is to be done by the service provider. All the measurements should be within the product offered and measuring the success should be an automated process.

#### **Mutually accepted calculations**

The most important aspect of the KPIs identified is the undeniability of the measurements. All the metrics measuring the outcomes have to be clearly defined and mutually

accepted by both parties before starting to implement the solution and using it. This is agreed by all the respondents.

*“We have capability to calculate KPIs, but customers might disagree with the calculating methods. We might see that the automation level is at 50% while customer feels that it is closer to 30%” – Respondent 1*

It is not uncommon that customers are calculating some KPIs differently for example the level of automation can be defined in many ways. Also, there are many features affecting the development of the KPIs. Matching rules in automate matching levels can be used as an example: Matching rules define the accuracy of which the solution has to reach when interpreting invoices and these rules are configured differently to each customer. If the rules allow more errors such as minor differences in the total sum of invoice or a missing contact detail, it is easier to improve the automation level. On the other hand, if the matching rules demand 100% accuracy in each case it is much harder to avoid human interaction in the process and to improve the automation level. These matters affecting the end results must be considered when designing the KPIs and setting the baseline for the project at the sales phase. These issues must be completely clear to the customer so that the expectations can be managed throughout the contract period. Also there have to be clear steps to take if the features affecting the KPIs should be altered during the contract period. Without adjusting the KPIs for example tightening the matching rules weakens the service providers possibilities to meet its goals and there is a risk for unsuccessful, unprofitable, business case.

### **Automated measurements**

*“We have to be able to extract the calculations from the system, manual calculations will not work” – Respondent 1*

*“It (the realization of the outcome) should be clearly shown without any miraculous reports. It could be seen directly from the analytics tool, and the CFO can look at it as soon as the invoice is delivered to him and state that, well, it is true that this invoice is now correct.” – Respondent 3*

One aspect of the undeniable measurement is the availability of the measurements. The actual measurement of the KPIs must be integrated into the solution provided and the actions related to measuring the KPIs are automated. Customer is being offered a real time access to the KPIs. Case company has taken actions to provide useful analytics to customers about their actions. This kind of tools can be used in outcome-based approach to communicate the current KPI level but also to demonstrate the effects of actions taken

to improve the processes. Case company currently has a good readiness to provide accurate measurements but there are still some reliability related issues that has to be fixed

### 5.3 Risks and benefits of OBP

This chapter aims to provide answers the second research question and by summarizing the results of the study together and presenting the risks and benefits related to OBP. Table 7 summarizes the findings that are explained later in this chapter.

**Table 7 Benefits and risks related to OBP**

Benefits	Risks
Improved win ratio in sales cases	Unsuccessful implementation
Higher customer loyalty	Failed metrics
Long term revenue	Unfavorable contracts
Internal development	Unpredictability
	Misaligned expectations
	Missing customer commitment
	Increased complexity
	Unnecessary investments / overinvesting

#### 5.3.1 Benefits

Main opportunity recognize is the capability win more sales cases. OBP offers an alternative approach, to be used as targeted measure. OBP in not to be used as an only approach but with careful consideration to increase the win ratio of sales cases. The OBP-approach brings also variation to the value based. As Saltan and Smolander present in their study (2021b), value-based pricing can be executed by using multiple pricing metrics. The interviews complement on that finding and there were discussions on both using a single outcome-based measurement or using outcome-based metrics as a part of a larger pricing solution.

Generally, the strength of OBP is in the value communication. In value-based pricing this is generally recognized as a challenge (Steinbrenner and Turčínková, 2021). By creating transparent, easily understandable KPIs to measure the perceived outcome produced it is possible to communicate the value proposition and support the sales of services using

OBP. This message can be strengthened by the fundamental that the service provider only gets paid if the business case is successful.

By communicating the service providers willingness to take risk it is possible to lower the customer's threshold to invest into a new service. This is an asset as ever more uncertainties enter market environment and makes potential customers more cautious. As literature stated lower customer risks is a great benefit (Buse et al., 2001; Decker and Paesler, 2004). The interviews support that view and suggest that having lower initial investment and convincing value promise OBP can be a powerful tool.

It is noted that OBP is not commonly used at B2B SaaS markets. This creates an opportunity to gain competitive advantage by being among the first to introduce new pricing approach to market. Based on the interviews and literature some customers are expecting such an approach from the service providers (Bonnemeier et al., 2010), but the interviews also indicate that a large number of customers are not familiar with the concept. By being among the first service providers to introduce the approach to customers can lead to increased number of sales cases won and increased competitive advantage.

After winning the sales case OBP enables tools for a long-term customer relationship. The approach emphasizes a close relationship and collaboration between the service provider and customer. By succeeding in delivering the outcomes an increase in customer satisfaction is made. This is expected to lead to a higher customer loyalty. Satisfied customers can be used as references to communicate the value to be delivered in new sales cases and improve the closing rate on new sales cases.

The OBP beholds a possibility for internal development. Pricing tied to one or few logical KPIs create a strong incentive for the service providers to deliver the promised outcomes and also to improve and develop their internal operations. This is done to be able to achieve higher profits and customer satisfaction. Improvements can be done for example by developing more efficient process or new functionalities that intensifies the effects of services. Addition to new features OBP creates an opportunity for upselling. Since the price of the service is based on successful implementation, it is justified to include a wider range of functionalities into the contract that. For example, in SaaS environment optional consulting and support services would be mandatory and included into the package sold when using OBP.

While it is not highlighted in the academic literature, the interviews reveal an opportunity for fundamental organizational changes. Implementing OBP offers a possibility to redesign the organization's way of thinking. It was raised in many interviews that with OBP the organization should move away from focusing on individual functions success and

start to focus more on collective success. With common pursue of delivering best possible outcomes to customers the whole organization can evolve into more successful direction.

### **5.3.2 Risks**

A risk that all the respondents have identified risk related to OBP is the smaller than expected effect. Ultimately, this means that the outcomes have not been delivered successfully. From the service providers point of view this causes decreased profit margin or at worst an unprofitable business case. Based on the interviews risk can be caused by insufficient research in sales phase or the customers lack of commitment.

As discussed in the sales process chapter the inability to evaluate the amount of work and recourses needed to achieve the desired outcomes can lead to unsatisfactory results in delivering outcomes. Also, baseline set too high unnecessarily reduces the potential return expectation. Therefore, the importance of sales process cannot be undermined.

Lack of customer commitment creates a significant risk for service provider. In its absence, it makes it almost impossible for the service provider to develop the customer's processes. Customer may be unable or unwilling to focus recourses into taking actions suggested by service provider to improve their performance and enable the delivery of outcomes. Reasons for lack of commitment identified were for example providers inability to communicate the needed level on commitment and resources in the negotiation process or customers changing internal focus.

Measuring the outcomes is an essential part of OBP. Challenges leading to a total failure in measurements creates a risk of unsuccessful deal. Misbehaving KPIs may guide the service provider to take counterproductive actions which reduces the positive outcome being delivered. Malfunctioning KPIs may also be unable to measure the actual outcomes delivered. This leads to lost profits as no increased revenue is created even though in reality outcomes are being delivered. Design flaws in KPIs may also create at worst case scenario an opportunity for manipulation which also leads to loss of profits.

Unfavorable contracts for the service provider that are caused by the providers inability to contract creates financial risks for provider. A poorly drafted contract can compel the supplier to invest more resources into the customer relationship than is estimated in the original business case therefore it is important to set contractual rules for the services.

As the execution of OBP is dependent on both customer and service provider there is a risk of misalignment between the parties. Misalignments may lead to weakened outcomes or at worse a total failure of the contract. As the goal of OBP pricing is a sustainable partnership all difficulties to align the objectives and necessary actions necessary to achieve them are a threat to the success of OBP.

A partnership generally means a long contract time. When taking in count the complex and dynamic nature of the B2B environment a long payback time set the service provider at risk. In a dynamic environment customer needs and priorities may change i.e., customer may need to focus its limited resources on another project and the development of the KPI does not realize as the provider has estimated in its business case. This may lead to decreased profits.

Due to multiple factors and uncertainty OBP may add complexity into both provider's and customer's environments. In a situation where customer has multiple OBP solutions in their IT architecture this could add unnecessary complexity. Another situation where complexity is added groundlessly is a situation where customer does not need or is not compatible with OBP approach. This leads to unsatisfied customer and weakens the service providers possibilities to deliver outcomes as promised.

An unsatisfied customer itself creates a risk for service provider. In practice all the factors mentioned in this chapter can cause unsatisfaction among the customers. The fundamental idea behind OBP is to better communicate the value and providers confidence to its solution to customers. To be successful in this the service provider needs good customer references and long-term relationships with customers. Therefore, it is even more important in OBP to improve customer satisfaction.

One risk related to OBP becomes relevant when the contract period is ending and a negotiation for a contract renewal takes place. In a situation where the service provider has been able create a substantial impact on customer's processes and the efficiency of customer's operations have been improved a cost focused customer might be looking for a cheaper solution to maintain the achieved level of efficiency. In these situations, the provider loses the predicted long-term revenues typical for OBP. Another case is when the desired outcomes have not been able to deliver to the level anticipated. Regardless of the reasons behind the failures in delivering outcomes the customer may be eager to look for a new service provider. This may cause the unsuccessful contract period to be unprofitable and lead to a bad customer reference.

A more strategic risks is related to investing into introducing OBP to market. Because approach is not widely used in B2B SaaS environment, company needs to put extra effort



into going to market with a new pricing approach. If successful may give company a strategic advantage but on the other hand if unsuccessful company has invested into wrong approach. Making a poor judgement when selecting to introduce OBP to market can be caused by misinterpretation of market signals or own capabilities. Therefore, it is important to consider closely the actual demand and potential of OBP compared to existing pricing strategies before investing into developing the OBP approach.

A risk closely related to launching a new pricing strategy is overinvesting into the new strategy. Inability to identify the use cases for OBP and adopting the approach too widely may lead to unsuccessful delays or lower profits. Misjudgments in selecting pricing approach may cause company to lose competitive biddings or to do deals that have lower profits than comparing to other pricing models. To avoid over investing into OBP approach it is important to identify the use cases and customer profiles the approach fits the best.

## **5.4 Discussion**

This chapter collects thoughts about the course of the research process and the final results.

### **5.4.1 Reflection on the research process**

The research process consists of literature review and interviews. This chapter evaluates the research process and any concerns it raised.

One of the major challenges in literature review was the missing common definition of the term outcome-based pricing. Many value-based approaches could be seen as outcome-based where in reality the approaches were more of a combination of selling the idea of an outcome and pricing was based on consumption. And on the other hand, many success-based and performance-based approaches were similarly as the outcome-based approach is in this study. It was also inconsistent whether OBP is a form of value-based pricing or if they are alternatives to each other. This inconsistency was also noticeable among the respondents. The definition of OBP was somewhat congruent with the respondents but there was some scattering around the relationship between value-based pricing and OBP.

The literature review consists mainly of manufacturing industry-based studies and no SaaS or software industry studies were found for this study. This did not become a problem in the study, but the theory supported the research conducted in the environment of

the SaaS provider. The background theory findings were mostly consistent with both industry best practices and interview findings.

Similarities could be found between theory and practice. Both manufacturing industry solutions and SaaS products are dependent on both parties' commitment. Both in SaaS and manufacturing context both parties suffer if there are downtimes in services and it is in the best interests of the service provider to ensure as efficient operations as possible. The importance challenges in value communication are recognized in the academic literature, industry best practices and in case study. OPB is seen to potentially solve some issues related to that. Also, the providers risk in the beginning of contract and the importance of capability of contract is highlighted in both environments.

The interview process proceeded in a reasonably straightforward manner and there were no major surprises during the process. The biggest challenge in the practical implementation of the interviews was the scheduling of the respondents. The work was done around the holiday season, so in the end there were several months between the first and the last interview. This can be seen as both an advantage and a challenge. The distribution of the interviews over a reasonably lengthy period of time made it possible to analyze the interviews in parts. On the other hand, with the last interviews, there was a risk that the results of the previous interviews would affect the course of the interview. Special attention had to be paid to the objective challenge and analysis. During the study, there were also stages when the lack of interview results slowed down the process at times.

Regarding the interviews, the choice was made to send the body of questions to the respondents in advance. In the end, only some of the respondents had time to familiarize themselves with the interview questions. Even though the subject was mostly familiar to the respondents, the answers of the interviews could have offered new perspectives if the themes of the questioning had been more widely known before the interview.

One pilot project related to OBP has been carried out in the company, and the experiences of this project seemed to be highlighted in many interviews. Bringing the pilot project to the fore really concretizes the practical lessons of OBP, but on the other hand, relying on one example could also limit thinking. To avoid this, the interviewer could have more clearly encouraged the respondents to think more broadly about the potential and challenges of OBP and bring ideas from outside the pilot project.

The interviewer could also have described the phenomenon under study in more detail in practice. Now, in some of the interviews, the practical implementation of OBP was a bit unclear. There is a risk that some of the respondents consider OBP as one part of a

wider pricing package, while some interpreted that the price of the entire service is based on the delivery of the outcome.

## 5.4.2 Reflection on the results

In this chapter it is discussed about answering the research questions and presenting the results.

The intention of the first research was to clarify the characteristics of outcome-based pricing in the context of B2B SaaS business. This study succeeded in finding similarities between previous OBP studies and the SaaS operating environment. Findings of this study indicates that the findings of recent research based on the manufacturing industry can be applied in a SaaS environment.

Despite the similarities, this study was not successful in directly creating a universal definition of OBP. Based on this research, it can be concluded that OBP in a SaaS environment must be defined on a case-by-case basis, and in order to apply it, each operating environment must be examined separately. As a starting point for OBP implementation, observations made in previous studies and the capability framework compiled in this study can be used.

The challenges of universal definition are created by the ambiguity of OBP. Within the case company alone, the practical applications of OBP were thought of in several different ways. Based on the interviews, the fundamental idea behind OBP is similar. OBP can be describes as follows: The more successful they are with our product the more they pay. How do you define successful is then what becomes challenge, and it has to be evaluated case-by-case.

Second research question was framed as “What are the benefits and risks of using outcome-based pricing?” This study supported the earlier studies findings related to the research question. The most expected benefits are related to increased profitability in the long term and increased customer satisfaction this is noted by Korkeamäki et al. (2021) in the manufacturing industry. In SaaS context profitability increases through new customer acquisitions, and by supporting customers, longer and more satisfied customer relationships can be made possible. In the case of this study, the realization of the expected benefits has not been verified in practice, so the research results are dependent purely on the theory provided by the literature and the answers of the respondents. The

benefits were also assumed to emerge with only large B2B clients. This can be questioned, and it should be reevaluated in other services contexts before generalizing it too much.

On the other hand, the case company has practical experience with OBP-related risks, and these supports the findings in the literature (Hypko et al. 2010; Hou & Neely, 2018; Korkeamäki et al., 2021). Therefore, the risk management in OBP will have a vital role and a service provider implementing the OBP has to be ready accept increased risk when compared to traditional pricing models. Even though some experience practical with OBP has already been, the experience is only from one single case and the results from that cannot be the results cannot be reliably generalized to a wider SaaS environment.

Although the empirical findings mainly supported the literature review there were some inconsistencies recognized between the literature and the materials gathered from the interviews. The academic literature recognized increased revenue as a strength of OBP (Korkeamäki et al., 2021). The respondents were less convinced about the direct profitability of OBP. The approach was expected to be profitable in a long-term, but the short-term revenues were expected to decrease. The long-term profits were expected to increase with improved internal operations and the main benefit was seen in the capability to close more sales instead of creating more profitable sales cases.

The importance of partnership mentioned in previous studies (Korkeamäki et al., 2021; Visnjic et al., 2018) was also questioned in the answers provided for this study. Based on the answers outcome-based pricing in SaaS can not always be based on partnership between the service provider and customer. This is due to the high amount of SaaS solutions in customers it architecture and limited amount of partnerships one customer can manage at once. Instead of relying on partnership, the service provider should create alternative tools for increasing customer commitment, such as, continuous consulting services.

Third research question aimed to present concrete factors to focus on when offering outcome-based contracts. The capabilities gathered into chapter 5.2 aims to answer this question. The findings of the analysis of the research material reveals factors that support the capabilities recognized from the literature. The results also reveals that many of the capability needs are recognized within the case company on a theoretical level but the concrete measures to ensure successful implementation of OPB had not yet been implemented or designed. This study also does not offer direct practical measures to

implement OBP but a capability framework to use as a base for internal process development in originations. Even though the results are tried to be presented in a universal form, the generalization of the results cannot be confirmed as the results have been gathered from a single case company's representative.

## 6. CONCLUSION

The motivation for this study was to introduce a new pricing approach into B2B SaaS environment and to possibly achieve a competitive advantage with it. The objective of this study was to identify OBP's weaknesses and strengths from the perspective of a B2B SaaS service provider. In addition to identifying challenges and opportunities, the objective of the study was to recognize practical characteristics that the service provider must take into account when preparing to implement OBP.

To answer the research questions, the study first conducted a literature review, which was used to identify previous studies that support the research context. The findings of the literature review were then complemented and supplemented by interviewing representatives of various functions of the service provider in terms of B2B SaaS sales and product development. With the help of the research, it was possible to increase understanding of both the service provider's and potential customer's expectations regarding the OBP, and to identify capabilities the service provider needs to have in order to successfully implement OBP.

Majority of previous studies considering outcome-based pricing has been conducted in manufacturing industry context. Based on the findings of this study the basic characteristics of outcome-based pricing recognized in previous studies can be applied into a SaaS environment. Challenges recognized in manufacturing industry context were supported by the interview responses.

Outcome-based pricing is a form of value-based pricing, and it aims to solve the three challenges in value-based pricing: value-assessment, value-communication, and sales department management and senior management support. OBP offers measures to quantify the value provided in form of an outcome. Quantifiable outcome enables communicating a credible value promise that can attract risk averse customers. Successfully implemented OBP is expected to increase long-term profits and customer satisfaction. In addition, as the pricing model requires commitment and cooperation between the service provider and the customer, the contract period is expected to be long. Long term revenues with an opportunity to develop the service with customer are opportunities the OBP presents.

OBP was recognized as a complex pricing method. Complexity increases the service providers' risks. The study identified a group of risk factors that should be taken into

account when planning to implement the OBP model. One of the major risk factors identified is the dependency on customer's actions. Due to this dependency the selection of customers should be carefully executed before entering a contract. Customer's capability to provide necessary recourses and to commit into the continuous improvement project needs to be confirmed.

As a conclusion it can be stated that OBP can be used to solve the challenges in value-based pricing strategy. It is a complex and arduous pricing approach. Both the service providers and the customers can maintain only a limited number of outcome-based contracts at once. Therefore, the usage of OBP should be limited to cases where both the service provider and the customer have strategic interests. Elements of OBP could be widely used to support value-based pricing approach. For example, quantifying the value being delivered in the form of outcomes can be a measure to increase the credibility of the value promise. By focusing on selling outcomes the service provider avoids unnecessarily increasing its risks of not being able to make an impact on customers operations due to factors it cannot affect.

## **6.1 Contribution to existing knowledge**

By providing insights into a topical case study, this study contributes to the academic literature and community. Based on the findings of the study, it can be stated that the goals set for the study were achieved. The understanding of outcome-based pricing in the SaaS environment was increased in terms of the literature review and empirical findings, and the research questions structuring the research were answered in chapter 5. Based on the findings, it was also possible to give practical recommendations to support the implementation of OBP.

Existing literature studies outcome-based from manufacturing industry perspective. Outcome-based pricing is described as a complex model (Hou & Neely, 2018) and the complexity is easily increased in the manufacturing industry as the level of implementation grows. This study supports the initial assumption that complexity of outcome-based pricing is also challenge in SaaS environment. Customer's complex software architecture and the strategic importance of the SaaS solution sets limitations to using the outcome-based approach. Findings of this study suggest that outcome-based pricing is a tool for the most strategic SaaS partner. This study also highlights the importance of customer commitment and balance between formal and informal control. The paradox between formal and informal control (Korkeamäki et al., 2022) is to be managed by investing recourses, especially time, into the selling process.

On a more high-level this study offers tools to solve the fundamental challenges in value-based pricing presented in chapter 2 (Hinterhuber, 2008; Hinterhuber and Bertini, 2011; Töytäri and Rajala, 2015). Outcome-based pricing in SaaS environment enables quantifiable measurements of value. Hinterhuber and Liozu (2014) discuss the importance and also the lack of innovative pricing in the SaaS environment. This study supports the discussion that investing into innovative pricing strategy, such as outcome-based pricing, could increase the customer satisfaction and improve long-term revenues. This study also presents that outcome-based pricing could improve the quality and efficiency of a SaaS solution.

The most important managerial implications of this study are related to the capabilities needed to implement OBP presented in chapter 5.2. As OBP approach differs from traditional pricing strategies the execution of OBP implementation needs careful planning. The success of OBP is seen to be dependent on both the service provider's and customer's contribution. By understanding the internal and external requirements of ensuring commitment managers will be able to design their organizations processes methods to lower the risks related to OBP. By understanding the dependencies managers will be able to balance between formal and informal control and ensure long-term relationship with customers. Currently the respondents were able to identify

To support dependency and related challenges this study emphasizes the importance of well-designed sales process. Foundation for successful OBP case is created at the sales phase and this study suggests managers to invest into the sales process. By understanding the requirements of OBP, the suitability of OBP can be evaluated at the sales process. Unsuitable or low profitability sales cases can be recognized before the contract signing and more suitable pricing approaches can be introduced for the customer.

## **6.2 Limitations and future research**

Due to the way the study was carried out, this study has certain limitations that should be taken into account when examining the results. First, the study was carried out on the order of a single company, which may affect the applicability of the results. The respondents who participated in the empirical study were collected from within one case company. The respondents had experience from one pilot project implemented within the case company. A single pilot does not give a completely comprehensive understanding of the practicality of the model. Due to the unfinished pilot project, the answers of the respondents may have reflected too much of the project in question instead of presenting on more general level thoughts. In addition, respondents selected from within the same company may be biased intentionally or unintentionally.



Outcome-based pricing should be supported more widely with multi-case studies covering several different companies and industries. Future studies could clarify differences in the suitability of OBP and in general for the B2B operating environment and more specifically for different industries. It would also be interesting to find out whether the OBP approach can be applied to, for example, the B2C market in addition to the B2B market.

Semi-structured interviews were used as the data collection method of the study, which places limitations on the reliability, generalizability, and credibility of the results (Saunders et al., 2019). Due to the semi-structured interview format, the content of the interviews and the order of discussion of topics could vary between interviews, which can weaken the reproducibility of the study. The relatively small size of the interview sample may also have effects on the generalizability of the results. Due to their position or the interview situation, the interviewees may have prejudices, as a result of which they may intentionally or unintentionally distort their statements. The interviewer may also have preconceived attitudes that can affect the way the questions are set or the interpretation of the answers. The limitations set by the data collection format were tried to be reduced by the choices made during the implementation of the research, but it is not possible to completely remove the limitations.

The general applicability of the results of the work is also affected by the limits that were deliberately set on the scope of the research. The empirical research was limited to the Finnish AP market. Geographical distinction can weaken the applicability of the results in other geographical contexts. During the research, it was recognized that the customers of the case company differ between different countries. For example, the North American market is assumed to be less interested in OBP solutions because of its challenging predictability.

Due to the selected subject limitation and the lack of practical results, the study did not bring out significant quantified results about the profitability of OBP. Future research topics could be aimed at a quantified comparisons between OBP and more traditional pricing models and the profitability of outcome-based pricing and outcome-based sales.

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# APPENDIX A: THE INTERVIEW STRUCTURE

## **Section 1: Current pricing strategy** (adapted from Rantalaiho, 2017):

1. From your perspective what are the benefits and challenges of current AP pricing strategy?
2. How customers see the service provider's AP prices?
  - a. How pricing should be communicated to customers?
  - b. What value the service provider's AP solution adds to customers operations? How could it be reflected to pricing?
  - c. What kind of role you see pricing has as a part of whole AP sales and delivery process?
3. How should pricing vary between customers?
4. How should pricing strategy vary between different products?

## **Section 2: Motivation / background of moving towards outcome-based pricing:**

5. How do you understand outcome-based pricing?
6. What are the service provider's incentives in OBP?
  - a. What are the financial results that the service provider is looking for?
  - b. What are the operational results that the service provider is looking for?
7. What are customer's incentives in OBP?
  - a. What are the Financial Results that customers are looking for?
  - b. What are the operational results that the service provider is looking for?

## **Section 3: Implementing outcome-based pricing:**

8. What are the business outcomes the customer is looking to achieve?
  - a. How do customer demands differ?
    - i. Clarifying questions based on the answers
  - b. Are customers aware of their needs?
9. What are the operating KPIs that should be tracked to measure success?



a. Is the service provider able to track these KPIs?

10. What Business Capabilities does the service provider's solution enable that impact these KPIs?

a. What is expected from customers side in order to improve the impact?

i. How should the service provider ensure customers commitment on KPI development?

b. How dependent success is on customers actions?

c. How dependent success is on the service provider actions?

d. How can the service provider develop internal incentives to provide the expected outcomes for customers?

11. What sort of risks can be linked to OBP from providers point of view?

12. What sort of risks can be linked to OBP from customers point of view?