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How to utilize a value-based pricing strategy in service contracts

A descriptive case study of how a Swedish
pricing consultancy company optimizes pricing of
services for its customers

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Abstract

This paper's aim is to analyze value-based pricing strategies in service contracts and how they help companies generate sustainable advantages. Scope of the analysis will be service contracts in manufacturing industry. A service contract could be defined as an intangible value proposition that includes but not limited to maintaining client's machines continuously for a negotiated amount of time.

By working with a Swedish pricing consultancy firm Navetti AB, a descriptive research was conducted in an effort to answer the research question: "How to utilize a value-based pricing strategy in service contracts?". By trying to answer this question, authors of this paper wanted to contribute to the developing framework of value-based pricing phenomena.

Results of this study indicates that certain steps need to be followed by service providers in manufacturing industry in order to utilize a value-based pricing strategy. Obscure perceived value of customers need to be realized and their value drivers need to be extracted, quantified and analyzed.

Findings of this study have implications both in theoretical and industrial perspective. From industrial aspect, service providers need to communicate with their customers deeply and analyze their value drivers, they also need to take cost-based and competition-based pricing strategies into consideration while utilizing a value-based pricing strategy. From the theoretical perspective this study contributes to the field of pricing and price optimization part of industrial management.

Key-words: *Value-based pricing, pricing strategy, pricing process, service contracts, manufacturing industry*

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Abbreviations

FTE Full time equivalent

KPI Key Performance Indicator

SLA Service Level Agreement

B2B Business to business

B2C Business to customer

1. Introduction

In this chapter, necessary background information has been given. The problem of the research is presented. Purpose and the research questions are then introduced. At the end of the chapter are discussed and contribution of this work has been pointed out.

1.1 Background

In our contemporary world, pricing become one of the most definitive success factors for companies. According to Harmon et al. (2005), no instrument in the marketing toolbox can increase sales or destroy demand faster than pricing strategy. Appropriate strategies for pricing according to present literature fluctuates between a cost-based and value-based mindsets (Harmon et al., 2005). As it can be seen from Figure 1, cost-based strategies focuses on products (both tangible and intangible) and their cost of production. Main driver of these strategies are products and their cost of production. Value created from products to their respective customers are not taken into account. Pricing of an individual product is calculated by adding an intended profit margin. Market average for the product is also taken into consideration. Possible profit margins are calculated with respect to the average price band for the given product in its respective market. Value-based strategies however, focuses on customers and their perceived value for the products that companies are promoting. Cost of production, average market price and expected profit margins are all taken into consideration, but the main driver for the pricing is done by studying the customer and the value created from the use of the product.

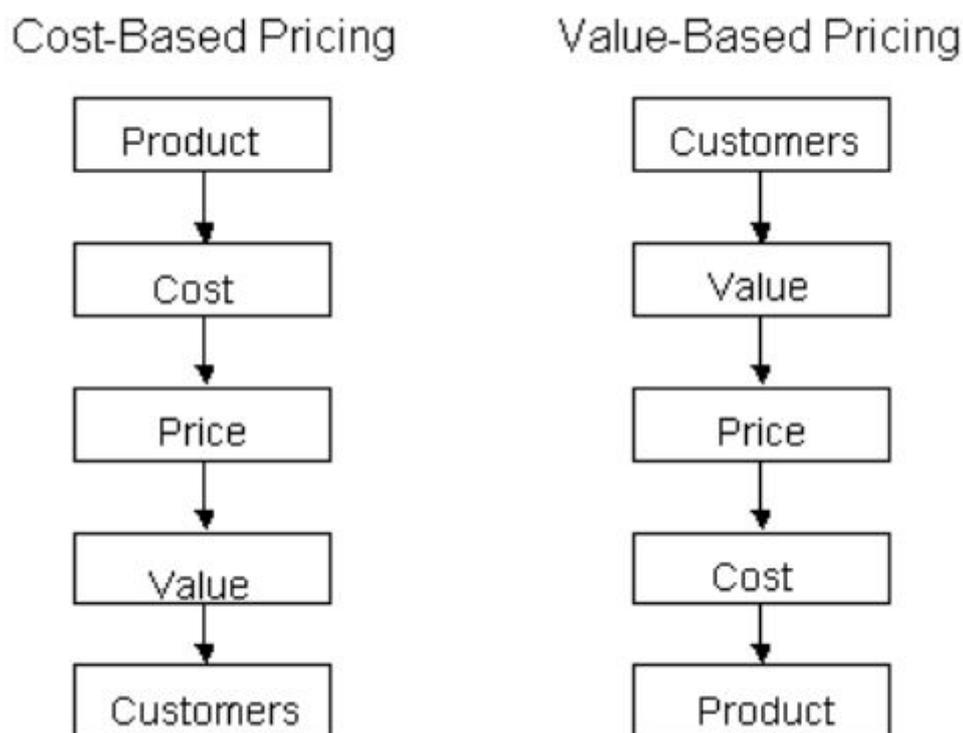


Figure 1: Main Strategies for Pricing (Harmon et al., 2005)

Between cost-based and value-based strategies, there is yet another one that is generally adopted by the companies. This strategy is called competition-based pricing and stays between the other defined strategies. Adopters of competition-based strategies tend to watch the average market price of their products and their substitutes more closely. In an effort to generate additional sales revenue, pursuers of these strategies updates their product prices with the market constantly. While cost of production and generated value for the product still does matter, main driver of this strategy is the average market price. According to Hinterhuber (2008), competitive market pricing is considered to be the most widely used strategy among companies that are in both business-to-business (B2B) and business-to-customer (B2C). Thus, it could be argued that competition-based pricing is the third main strategy for pricing.

With an effort to clarify main strategies of pricing and providing necessary background information to the reader, a table has been created and could be seen in Figure 2.

	<i>Cost-based pricing</i>	<i>Competition-based pricing</i>	<i>Customer value-based pricing</i>
Definition	Cost based-pricing approaches determine prices primarily with data from cost accounting	Competition-based pricing approaches use anticipated or observed price levels of competitors as primary source for setting prices	Customer value-based pricing approaches use the value a product or service delivers to a predefined segment of customers as the main factor for setting prices
Examples	Cost-plus pricing, mark-up pricing, target-return pricing	Parallel pricing, umbrella pricing, penetration/skim pricing Pricing according to average market prices	Perceived value pricing MPerformance pricing
Main strength	Data readily available	Data readily available	Does take customer perspective into account
Main weaknesses	Does not take competition into account Does not take customers (and customer willingness to pay) into account	Does not take customers (and customer willingness to pay) into account	Data are difficult to obtain and to interpret Customer value-driven pricing approach may lead to relatively high prices – need to take long-term profitability into account Customer value is not a given, but needs to be communicated

Figure 2: Most Used Pricing Strategies in B2B and B2C Markets (Hinterhuber, 2008)

In overall profit gain, cost-based pricing strategy is considered to be the weakest approach. While competition-based pricing is appropriate for commodities if products/services in question cannot be differentiated, it is considered to be sub-optimal. Value-based pricing on the other hand is known for its direct link to customer needs and thus the best overall approach.

Main scope of this research is companies' usage of value-based pricing strategies in service contracts. To support this strategy more from the companies perspective, Porter's competitive advantage phenomena could be used. According to Porter (1985), advantages need to be sustainable in order to be regarded as a competitive edge. It could be argued that companies need to scale their businesses more in order to sustain their operations. Due to this reason, value-based pricing approaches results in a more profit driven businesses thus, a healthier competitive edge. Answering how companies could adopt value-based pricing strategies in service contracts will be the main research point of this paper. Information about other strategies have been given to show how value-based pricing provides best outcomes economically.

Providing main differences between tangible and intangible products is yet another aim for this background analysis. Due to their different natures, tangible (goods) and intangible (services) product's value propositions differ from each other. Goods have a tendency to create value when their customers use them physically in order to satisfy their needs. In this case when companies try to analyze the perceived value for a physical good they investigate the interactions of the customer with the tangible product. While the same goes for intangible products, there is a critical difference in terms of value creation (Cusumano et al., 2015). Due to their produce and ship mentality, value creation happens between customer and the physical good. In services, companies can be more involved in the value creation process while customer interacts with the intangible product. In order to clarify these differences BMW, a German automotive company and SAP a German enterprise software solutions company will be given as examples. Both of these companies utilize value-based pricing strategies for their products (Hinterhuber, 2008). When a customer purchases a car from BMW, value creation begins when said individual starts using the automobile. Quality of the parts, driving experience, design and style of the car, softness of seats and smell of newly manufactured plastics are some examples for the driver of perceived value that comes from the customer. It must be noted that all of these above will be experienced by the customer without the company interfering in the process. If one of these parts needs refining (changing the seats as an example), BMW needs to alter their cars that have been shipped to customers. They then should make necessary changes in their production lines for the cars to come. SAP on the other hand allows their customers to use their licensed softwares to satisfy their needs. Unlike in physical goods the company (SAP) is part of the value creation process. SAP can choose to alter their softwares, code new programmes to add new functionalities or delete unnecessary parts however customer wants, while they are using the service. Thus, service companies can be considered to be more dynamical in terms of value creation process than producers. As a result, perceived value for a service could be argued to be a communicated effort rather than a calculated one (Hinterhuber, 2008). These examples show that service companies approach value-based pricing strategies differently than physical good companies. Due to this reason, authors of this paper want to explore how service companies utilize value-based pricing strategies in their service contracts.

1.2 The Problem

As discussed in the introduction, utilizing a value based pricing model for intangible products is a different pursuit than tangible ones. In order to establish a successful value-based pricing model, perceived value for the related good or the service needs to be understood. Observing customer's perceived value towards an intangible product is difficult and can be regarded to include different approaches than tangible ones. According to Berry and Yadav (1996) services differ from physical goods in terms of their search, experience and credence attributes. These can be argued to be three categories that help marketers distinguish among products. Those that can be evaluated before purchased and used have search attributes. Products that can be evaluated after use tend to have experience attributes. However in products that can not be fully evaluated even after using tend to have credence attributes. Berry and Yadav (1996) argues that tangible products are more likely to possess search and experience attributes while intangible ones have a tendency to possess credence.

The key aspect of a value-based pricing is to find the right price that equals to the value gained when customers take advantage of a said good or service. Goods with search and

experience attributes are easy to judge and evaluate. Companies that offer physical goods can calculate the value of their products easily due to this reason. However, pricing strategies in services often derail because they lack an obvious association between this said value and the price of the service (Berry and Yadav, 1996).

1.3 Purpose

According to this background, purpose of this research is to study the main drivers of value-based pricing strategy in intangible products. Finding possible solutions to provide a link between value and price of a service is crucial to this research.

In order to achieve appropriate outcomes, value-based pricing phenomena has been researched. A case study has been used in order to justify and test the studied frameworks in the present literature.

For an effort to achieve the said purpose, this research has been empirically grounded to the service contracts in manufacture industry. This limitation comes from the collaborated firm, Navetti AB. This Swedish consultancy firm mainly proposes value-based pricing strategy adaptations for its customers in manufacture industry. This allowed authors of this paper to focus on finding an appropriate link between price and values of the services in said environment.

Results of this research will contribute to the general framework of pricing management. Possible learnings will allow new frameworks to be developed targeting solely service contracts.

1.4 Research Question

In an attempt to achieve the purpose, the research question: “How to utilize a value-based pricing strategy in service contracts?” has been prepared. Answering this question will be the main objective of this paper. Following subset of research questions have also been proposed to clarify the main objective and answer the question above:

Sub Question 1: Which factors predicts service contract prices in manufacturing industry?

Sub Question 2: What is the perceived value from manufacturer perspective toward a service contract?

Sub Question 3: How Navetti approaches value-based pricing strategy for their clients?

1.5 Delimitations

Service contracts and intangible products are both widely used and broad concepts. Answering the research question of “How to utilize a value-based pricing strategy in service contracts?” is the primary goal of this research. Due to this reason some limitations have been issued regarding industries and the concept of intangible products. First and foremost, this research will be based on B2B market. B2C markets contains subjective approaches from companies towards end customers. These markets also need wide array of sample sizes in

order to reach conclusions. B2B markets on the other hand focuses on objective key performance indicators and small size of end customers. Another limitation is the chosen industry. Manufacture industry has been chosen for the sake of taking advantage of the company where the case study has been done. In terms of intangible products, service contracts will be used mainly in this research. This limitation also comes from the company that has been worked with. B2B markets form the main characteristics of service contracts. Manufacture industry consists of establishments that that are engaged in physical, mechanical or chemical transformation of resources into products. These establishments are different forms of plants factories or mills, depending on the environment they are operating. Mechanical factories and plants form the biggest part of the GDP's of world leading economies such as United States, China and Germany. Analyzing the characteristics of these subjects will allow us to reach appropriate outcomes within a limited time and resource frame. Thus, Navetti AB's client managers in manufacture industry that are mainly mechanical factories have been used as interviewees and are the main limitations of this research study.

1.6 Contributions

This study will contribute to the literature of pricing management theory by clarifying the ways of linking value with the price of services. Present literature offers wide range of toolsets that can be used to utilize value-based pricing in physical products. However, intangible products in B2B markets are yet to be thoroughly researched. Another aspect is that company's ways of utilizing value-based pricing to their operations. This research will aid service based companies that are looking for appropriate strategies and help them maximize their profits by taking advantage of value-based pricing model. It should be taken into account that this study was based on a Swedish price consultancy firm Navetti AB and outcomes of the analysis may not work on different industries.

1.7 Outline of the thesis

This thesis consists of seven chapters:

In chapter one, *Introduction*, background information for the reader has been presented in order to clarify the rest of the research. Problem and purpose of the study then introduced, research questions has been given to the reader. Finally of the study and contribution of the outcomes has been presented.

In chapter two, *Literature Review*, present day literature has been studied and presented regarding different types of pricing. Tangible and intangible product differences has been given according to literature. In an effort to analyze the ways of utilizing value-based pricing in service contracts, intangible resources in B2B markets has been presented according to the literature. *Method*, research methodology has been introduced, research design has been presented by clarifying how the case study has been conducted, finally reliability of the study has been pointed out.

In chapter three, *Method*, research methodology has been introduced, research design has been presented by clarifying how the case study has been conducted, finally reliability of the study has been pointed out.

In chapter four, *Navetti AB*, a background of the case study collaborator company has been given.

In chapter five, *Findings from interviews*, the results from the interviews has been given.

In chapter six, *Analysis and Discussion*, the result is analyzed and discussed according to the studied literature.

In chapter seven, *Conclusion*, the research question and sub questions are answered. Further needs for future studies has been pointed out.

The process of the thesis and the pursuit to appropriate conclusion has been presented in Figure 3.

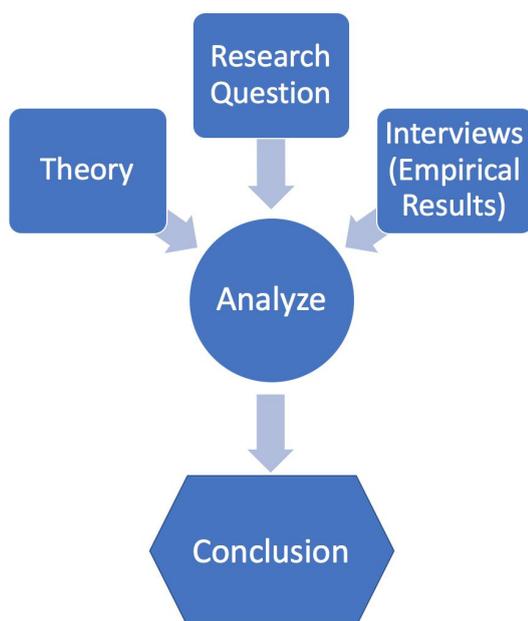


Figure 3: Procedure to reach conclusion

2. Literature Review

This chapter of the study presents both academical and practical literature concerning necessary subjects about the research. Relevant existing literature has been studied in an effort to create a foundation to clarify how value-based pricing model can be utilized for intangible products such as service contracts. The study aims to empirically justify the interviews that have been done with the collaborated company. Expanding from this point the literature review will become the theoretical base that the research question will be analyzed upon. All of the following study has been done in order to spot the necessary gap in theory that worth analyzing for. The research question “*How to utilize a value-based pricing strategy in service contracts?*” will be the core of the literature review and all relevant academical and practical resources has been studied according to this perspective in mind.

The section *value propositions of tangible and intangible products* will be analyzed in an effort to understand the differences of pricing approaches for them. This section clarifies the main differences regarding the dynamics of tangible and intangible products. How their value propositions differ and how customers perceive their values. In our contemporary world product range for goods and services are vast. For this reason this section will be based on manufacturing industry. This limitation is necessary in order to collect resources that are in parallel with the research question.

In the section *service contracts in manufacture industry*, both academical and practical literature will be presented that shows main dynamics of the industry. Customer behaviour will also be pointed out in B2B. Main attributes of service contracts will be defined according to present literature.

In the section *pricing strategies* relevant literature regarding the present pricing models will be presented. Pricing models change businesses profitability in a crucial manner and adapting different strategies requires full commitment of whole organizations. Main strengths and weaknesses of each model will also be presented according to the present literature.

Section *implementing value-based pricing* presents literature of the model. Literature will be presented in order to show how value-based pricing could be utilized in services and in what ways utilizing said strategy is different than with tangible products.

2.1 Value Propositions of Tangible and Intangible Products

This section presents relevant present literature regarding tangible and intangible products in manufacture industry. Literature regarding their differences in their value proposition, perceived values and attributes for understanding their value will also be presented. Literature concerning value propositions of company's in manufacturing industry will be presented to create a foundation for understanding different attributes of intangible products than tangible ones.

2.1.1 Value Propositions of Companies in B2B Manufacture Industry

Proposition of value is one of the three requirements of businesses in both B2B and B2C markets. Businesses need to propose value then try to create this proposed value, finally they try to capture this value from their respectable customers (Johnston and Clark, 2008). Value proposition occurs when companies offers their products to their customers. Ways of these offers change according to product types and how companies interacts with their customers. Osterwalder et al. (2014) argues that value proposition is the description of the benefits customers can expect from businesses' goods or services.

According to Cusumano et al. (2015) value propositions could be categorised in front-office back-office model. This model shows how businesses chooses to interact with their customers during value creation process. Front-office is the part where customer interacts with the company. Front-office model occurs in companies where customers are directly approached and interacted while they experience the value creation process (Cusumano et al., 2015). A relevant example that can be given from the B2B manufacturing industry for this model is a consultancy company. It could be argued that consultancy is an intangible front-office value proposition. Manufacturing companies often asks for such services for their pricing and

marketing divisions. In general, the customer experiences the value creation from the consultancy service with a direct interaction of the company. A consultant need to interact with the customer and offer services tailored to suit them. Service itself is an ongoing procedure for the customer. Back-office on the other hand is the part regarding the processes that can not be experienced or observed by the customer (Zomerdijk and de Vries, 2007). In this kind of value proposition, value is created without a direct interaction from the company. From the manufacturing industry, companies that offer spare parts are good examples. In B2B markets, companies that offers products to their end products often purchase spare parts from other businesses in the value chain. Spare part producers in this industry could be argued to be companies. These companies proposes value by selling necessary spare parts to their clients. Value creation occurs when companies purchase and use the said spare parts. There is little to no interaction with the company during this point. The product is experienced by the customer and not the company. Between front-office and back-office models there is the middle ground; the middle-office where companies proposes values with an interaction to their customers but without a full extend. The Swedish wooden furniture producer IKEA could be given as an example. IKEA proposes value towards selling ready-to-assemble furniture to their customers. Value creation occurs when customer uses the said furniture. This part is the back-office. However, due to the fact that customers need to assemble these products themselves, there is an interaction with IKEA during this process and this is the front-office part. Middle-office could be regarded as the mixture of front-office and back-office part of the model. All of these models could be observed in Figure 4.

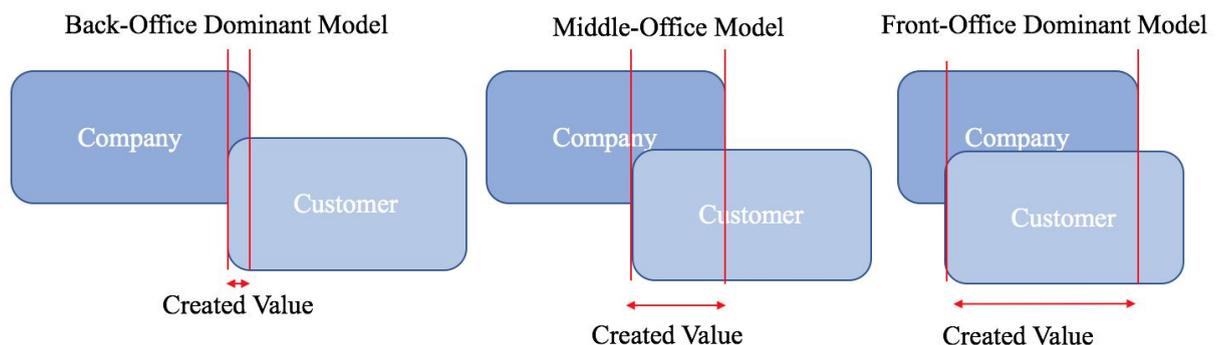


Figure 4: Front-office Back-Office Model (Cusumano et al., 2015)

Companies that are operating in the manufacturing industry value chain choose to adopt different parts of the model according to their customers and suppliers (Figure 4). In B2B section of the industry, companies offer tangible products or services to other businesses. B2B section differs heavily from the B2C due to several characteristics. First and foremost marketing strategies are crucially important in B2C. Products and services are sold to wide range of end customers. This allows companies to market their products as they choose to. However in B2B section marketing tools become obsolete due to end customers being other businesses. Main driver of B2B chains are key performance indicators and previous experiences. Businesses tend to work with other businesses based on their performance and their prior work experiences. Marketing products and services to other businesses becomes an unnecessary labour. Instead companies tries to seal deals and complete work orders in order to increase their reputation. This allows them to find more clients and expand their businesses. Manufacture industry is no different in this regard. Both tangible and intangible products are chosen based on their performance, created value for the money spent and other key performance indicators. Businesses that offer intangible products as their value

propositions tend to follow front-office dominant models in the manufacture industry while tangible ones being more back-office dominant (Cusumano et al., 2015; Hayes and Wheelwright, 1979). As it has been discussed previously in introduction chapter, this study is limited to manufacturing industry. For this reason, relevant literature that is linked to this industry has been studied and presented in this section of the research.

2.1.2 Value Proposition of Tangible Products

Tangible products can be referred as manufactured finished goods that could be used by customers to create value. Wide array of goods could be given as example in the manufacturing industry. Spare parts are goods that are traded between companies in B2B section of manufacturing industry. Goods like automobiles, pencils, apparels are all examples for B2C section of the said industry. Businesses that proposes value through selling of tangible products tend to be more back-office dominant (Hayes and Wheelwright, 1979). In these kind of businesses, value creation process occurs when customer uses the purchased good. In tangible products, customers evaluate the value by either searching or experiencing (Berry and Yadav, 1996). Searching is the process when customer observes and investigates other customer's interactions with the given tangible products. Experience comes from the use of the product. In either way, interaction is made with the product and product only. Customers evaluate company's value proposition with the purchased product. Levitt (1981) describes this process as follows: *“Tangible products differ in that they can usually, or to some degree, be directly experienced—seen, touched, smelled, or tasted, as well as tested. Often this can be done in advance of buying. You can test-drive a car, smell the perfume, work the numerical controls of a milling machine, inspect the seller’s steam-generating installation, pretest an extruding machine.”* It is palpable for customers to understand the value of a product after interacting with them. Companies in this regard can only interact with their customers by adapting their products according to their needs.

Value creation of tangible products are more straightforward than intangible ones. In tangible products, value creation equals to the perceived value of the customer towards the product (Cusumano et al., 2015). In order to increase the created value, companies only objective is to increase the perceived value of the customer towards businesses product. There are empirical studies and calculations available to achieve this objective such as minimum viable product iterations, demos and customer satisfaction surveys. These kind of empirical works help companies design their products in a way that they will surely satisfy their targeted customers. Search and experience attributes of these products could be observed and noted to make changes in the design of the product. This allows customer to choose right product towards observing and getting the most value out of it in the end (Berry and Yadav, 1996).

2.1.3 Value Proposition of Intangible Products

Intangible products in manufacturing industry are services ranging from maintenance and repair services to software solutions. Main feature of these kind of services is the company's interaction with the customer during the value creation (Cusumano et al., 2015). Berry and Yadav (1996) argues that customers can not fully evaluate values even after experiencing these services. This is the characteristic difference of an intangible product form a tangible one. They require constant interaction with the customer. Company creates value while interacting with its customer and customer perceives this value accordingly. Empirical

evaluation before experiencing is not feasible due to the intangible nature of these services (Levitt, 1981).

According to Levitt (1981) a tangible product that is manufactured under close supervision in factory and with high understanding of a customer's need, delivered through a planned and studied network is much more likely than an intangible product to fulfill the promised expectation of a customer. This shows the problematic nature of value evaluation of intangible products. Credence attribute of these services makes it hard for service companies to perceive the value created from a service. Thus, it is harder to justify the right price for it (Berry and Yadav, 1996).

Intangible products' value propositions could be categorized as either middle-office or front-office dominant types of businesses. Companies that create value through intangible products need to involve their customers to the process (Johnston and Clark, 2008). From this perspective, justifying the created value becomes a communicated effort rather than a calculated one. According to Levitt (1981) creating value from an intangible product is dynamical and requires constant continuous effort from the company towards its customer. In intangible product value propositions, companies directly enters the value creation equation. Performance of the company becomes a variable in this equation. However in tangible products, companies sole priority is to justify its customer need by manufacturing the good according to its customer. In a clear and concise manner, present literature shows that value proposition of intangible products are more dynamical and harder to achieve than tangible ones. Naturally, adapting pricing strategies to these different propositions requires different workloads and ways of adoption.

2.2 Service Contracts in Manufacturing Industry

This section presents relevant literature regarding service contracts that are proposed by companies in manufacturing industry. In our contemporary world enterprises with wide product ranges and high production volumes purchases services for their fixed assets (Cusumano et al., 2015). These services are given by companies to bigger producers in the value chain. These services are mutually beneficial contracts that include maintenance and repairs to fixed assets as well as insourcing certain department roles as a whole. Present relevant literature based on this context will be provided here, both from academical and practical perspectives. Firstly maintenance and repair services will be introduced. Software solution services will be presented. Thereafter, outsourced departments will be discussed. These types of services are observable in the manufacture industry and they differ in terms of their value proposition approaches. As discussed previously in the introduction chapter, application of pricing strategies differ when value propositions change.

2.2.1 Maintenance & Repair Services

Manufacture industry is based on the equilibrium of transforming raw materials to usable products and selling them to purchase more of the said raw resources to continue this chain. Successfully controlling this chain and capturing the necessary value from produced goods creates dominant manufacture businesses that expands rapidly. Main drivers of these companies are downtime and uptime controls of the production lines. In order to successfully continue production, companies need to manage the maintenance and repairs of these production lines. According to Graham and Thrift (2007), companies that operates in the

manufacturing form *infrastructures*. Infrastructures are the blood veins of the companies that ties physical production to software management. It allows their personnel to monitor production lines with key performance indicators as well as automatize substitute processes such as quality assurance. Graham and Thrift (2007) defines these companies as hostages to electricity. They become so bound to automatization that minimizing costs and maximizing output becomes the primary objective of this organism.

Minimizing cost of production requires production companies to pursue manufacture and repair services. Levitt (1981) argues that outsourcing these services is an appropriate action due to several reasons. First and foremost repair service is a one time action. Employing a repair personnel to deal with these issues inhouse means continuous payments for dealing with an action that may or may not happen at all. Secondly maintaining production stations requires high performance. Cusumano et al. (2015) emphasizes that outsourced personnel have a higher probability of performing than inhouse personnel. In a clear and concise manner, manufacture companies that operates in the end of a value chain often outsources maintenance and repair services to companies that are specialized in these areas.

Maintenance and repair services in the manufacturing industry begins with a contract. Analyzing the current literature implies that service contracts are liability agreements that each side accepts before front-office or back-office dominant value creation begins (Zomerdijk and de Vries, 2007). According to Chase (1978) a service contract is the physical presence of the company in the manufacturer's infrastructure. Schmenner (1986) describes a service contract as an interaction between the customer (manufacturer company) and service provider and the customization of this contract being making demands on the design of these services. From a more practical perspective, service contracts in the manufacturing industry are a different approaches of profitability by service or good providers. Rolls-Royce -famous British aircraft engine producer- started to rent their engines instead of selling them to their clients. These rent offers included both future maintenance and repairs that will be done to the engine. Term for their new rent model comes from their pricing method *power by the hour*. Smith (2013) defines this model as transforming a tangible product offer to a service contract. From the perspective of designing such maintenance and repair service contracts we define a service contract as:

An intangible value proposition that includes but not limited to maintaining client's machines continuously for a negotiated amount of time, while taking necessary actions for keeping them working in an agreed efficiency.

This definition implies that a service contract is an intangible offer, therefore their credence attribute in terms of price estimation is higher than experience and search (Berry and Yadav, 1996). Time of the service is limited to the contracts length and there are certain key performance indicators that both companies need to follow. Application of a pricing strategy for these kind of contracts is challenging. As Levitt (1981) argues that estimating the positive effect of the service from customer's perspective is hard before servicing begins. As customer can not expect how contracted company will perform, they can only justify and set certain limitations with key performance indicators.

2.2.2 Software Solutions

Services in the manufacturing industry includes certain softwares. Software solutions companies such as SAP and Oracle offers services that includes but not limited to data storage, enterprise management, production management and customer relationship managements. Levitt (1981) argues that these kind of services are the closest types to tangible value proposition. This comes from the offering of these services. Software solutions are sold in terms of packages. In general a manufacturer purchases these softwares and uses their license to create value by storing and managing data. Apart from third party consultancy service for the usage and programming of these softwares, there is little to to interaction with the service provider. It is more of a back-office dominant business. Berry and Yadav (1996) argues that these services could be searched in terms of their estimated value. This allows service providers to price their softwares accordingly while customers search and experience the most accurate value. Present literature shows that back-office dominant services posses search and experience pricing attributes (Berry and Yadav, 1996). This leads to an easier application of a pricing strategy to these kind of services.

2.2.3 Outsourcing Department Roles Through Services

Services in manufacturing industry includes outsourcing certain department roles in an organization. According to Cusumano et al. (2015) companies may choose to purchase services instead of forming in house departments. Marketing, accounting and human resources are the most relevant departments that are outsourced in our contemporary world.

Dilemma of employing personnel or outsourcing is an imminent decision that manufacturing companies face with. Roth and Van der Velde (1991) argues that building a marketing department from the ground up requires certain amount of maturity. This level of maturity requires the company to invest money and time. Time between the formation of a department and their age of maturity is a dead investment and produces zero short term value for a company. Safizadeh et al. (2003) argues that operations of a company needs a certain amount of efficiency. Johnston and Clark (2008) emphasizes that outsourced departments perform better than in house ones due to the key performance indicators that are in the service contract. These services are front-office dominant types and requires constant interaction with the customer. Thus, unlike software solutions it is harder to apply certain pricing strategies.

2.3 Pricing Strategies

In the following section different types of pricing strategies will be introduced. Relevant present literature will be presented accordingly. Application of these pricing strategies to tangible and intangible products will be presented and possible differences will be pointed out. According to the literature, there are three acknowledged pricing strategies that are relevant in today's world and are used by companies in the manufacturing industry; cost-based pricing, competition-based pricing and value-based pricing. These strategies have their own strengths and weaknesses. Their level of adoptions changes with different value propositions.

2.3.1 Adopting and optimizing a pricing strategy

Choosing the appropriate pricing strategy is one of the most crucial decisions that a company should make (Harmon et al., 2005). Understanding complex pricing strategies and their approaches start with the description of pricing. According to Cusumano et al. (2015) pricing is one of the main drivers of businesses in the value capture phase. As previously discussed, all businesses including companies that are in the manufacture industry need to propose, create and capture value. According to Roos et al. (2004), pricing is an activity for a company to reach certain objectives. From a more practical perspective, Osterwalder et al. (2014) describes pricing as a tool for customer development and retention. All of these present literature implies that pricing is a crucial part of companies. In our contemporary world, companies follow certain rules to adjust their market prices in order to maximize their value capture rates. Over time these processes have been evolved and settled down into widely known and accepted models called pricing strategies.

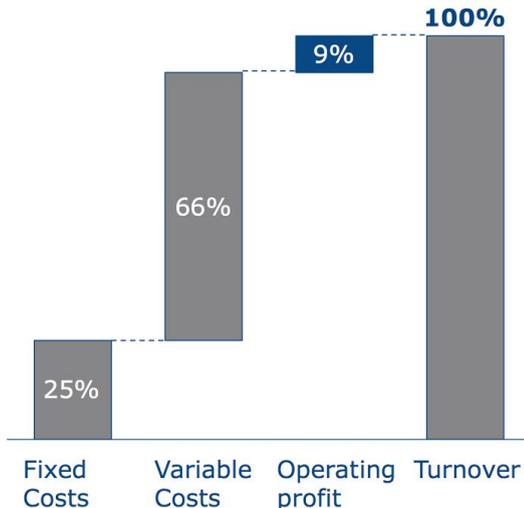
Pricing strategies could be described as planned activities that aid companies to reach certain objectives (Ross et al., 2004). They are impactful for businesses for increasing the rate of value capture and customer development. Following an optimum pricing strategy could cover short-term issues like seasonal increases of cost of production, low liquidity etc. (Osterwalder et al., 2004). According to Porter (1985) companies need to find their own competitive advantages in order to survive constant market competition. From a more practical perspective Mourya (2012) defines this phenomena as an unfair advantage. He implies that every successful company has their own unfair advantage that creates value at an increased rate. Overall, choosing the appropriate pricing strategy for an company could become an unfair advantage or a competitive edge.

Pricing and following an appropriate pricing strategy become even more important in B2B markets. As previously discussed, customers in B2B market forms their decisions on key performance indicators, previous experiences and thorough analysis. Unlike B2C market, advertising a product, marketing it through campaigns and altering with buyers cognitions become irrelevant. According to Nagle and Hogan (2006), companies that are operating in B2B markets need to consider large volumes of tacit information about firm's strategic objectives, its cost structure customer's' needs, overall sales, competitor prices, margin levels and market shares in order to make a proper pricing decision. These decisions become even more challenging when dealing with service contracts. As service contracts are intangible products, estimating customer value and needs requires special attention. Berry and Yadav (1996) emphasises on this issue by stating that perception of value for intangible products become obscure as even after using a service, its customer can not specifically state its value. This issue make application of pricing strategies more challenging for service contract companies and requires more research.

Impact of choosing an appropriate pricing strategy could be observed by understanding its effect on profit. According to Özer and Phillips (2012), even a diminutive change in prices could impact profits greatly due to its ability of result in snowballing sales. From a more practical perspective, according to an analysis that has been made by McKinsey & Company based on Global 1200 companies, a diminutive 1% improvement on pricing impacts the profit by a staggering amount of 11%. Another driver that could change with volume; variable costs, a 1% change affects profits by 7,3%. When sales increases by 1%, it impacts the profit

by 3,8% followed by a 1% decrease on fixed costs affecting profits to increase by 2,8% (Baker et al., 2010; Kohli and Rajneesh, 2011). This study could be seen in Figure 5.

Average profitability and cost structure Global 1200



Parameter	Change	Impact on operating profit
Price	1% ↗	11% ↗
Variable costs	1% ↘	7,3% ↗
Sales	1% ↗	3,8% ↗
Fixed costs	1% ↘	2,8% ↗

Figure 5: Impact of pricing on profit (Skugge, 2017)

Studying present literature implies that managers of companies focus on cutting costs and searching for ways to increase sales. These actions shows how industries fail to take advantage of pricing strategies. Finding the appropriate price for a service could impact profits greatly. Thus, it could be argued that energy and stamina of managers operating in manufacture industry need to be spent on studying and finding an appropriate pricing strategy and ways of adopting them. Further research is needed to understand the perceived values of customer's towards intangible products (Berry and Yadav, 1996). Therefore this research will use service contracts as a deducted example of intangible products to analyze pricing strategies and their ways of adoption.

In theory there are lots of different tools and techniques for pricing. As each approach is different and tailored for a certain situation, they are all based on certain models. These models become stable frameworks for companies that operates on both B2B and B2C markets. According to Harmon et al. (2005) pricing strategies shift between a cost mindset and value mindset. As cost mindset puts reduction of costs on top, value based approaches puts customers on top and costs on bottom. According to Skugge (2017) companies may choose to rely solely on competitive market prices and dynamically shift their prices to take advantage of certain situations. By adding this approach to the cost and value based pricing strategies we reach to three main pricing strategies that are all relevant and appropriate. This research will be based on these three models and accept these as the main framework of pricing strategy according to the present literature. All of these common strategies of pricing will be presented, followed by a practical framework of the case study company, Navetti AB.

2.3.2 Value-Based Pricing

According to Cusumano et al. (2015) it is equally important for companies to capture the value with respect to the value they create for their customers. Value-based pricing puts

customer's needs and wants ahead of anything else. According to Osterwalder et al. (2014) understanding the perceived value for the good or service a company provides for their customers should be that company's main priority. A price of a product could be set by the market average or the costs of their raw materials but in its core price is the trade that a customer is willing to take in order to satisfy their needs and/or wants (Skugge, 2017). In our contemporary world customers expect differentiated products, tailored to satisfy their specific needs and wants rather than standardized products (Olve et al., 2013). Skugge (2017) points out customer's willingness to pay towards a product as a crucial driver that companies need to study before setting price tags for their goods or services.

Customer's perceived value towards a product is the main point of value-based pricing. Apart from adding profit margin on top of their costs or worrying about competitors prices, companies need to understand what their customers really want from them. Addressing customer's needs allows companies to charge the optimal price for their products (Osterwalder et al., 2014).

Studying customer's and understanding their needs allows companies to come up with strategies to set their prices according to their customers' willingness to pay. Attracting customers by offering them their needs is a much more productive way than luring them with lower than average prices in the long run (Nagle and Hogan, 2006). According to Osterwalder et al. (2014) studying customer needs and setting prices based on their perceived value gives them an unfair advantage in the market. This could be argued to be the main strength of value-based pricing approaches.

Working with customers and figuring out their perceived value towards company's products is a complex effort. As companies need to dissect tacit knowledge from the customers and calculate search, experience or credence attributes towards their products in order to justify the correct value (Berry and Yadav, 1996). Experienced sales force is necessary for this model and failure is not an option as competitors could gain market share if the model could not be adopted. Present literature describes ways of utilizing a value-based strategy for products with search and experience attributes. However there are no detailed researches about products with credence attributes. This issue could be seen in Figure6 below. According to Olve et al. (2013) value-based pricing is not suitable for standardized products as value created for each customer could not be the same, customization is a must. In a clear and concise manner, limitation of applied products, requiring experienced staff and understanding a tacit knowledge that is not easy to attain are the main weaknesses of the model. However, it should be taken into account that value-based pricing approach is the most appropriate one. It can allow companies to control the prices themselves and gain a continuous profitable growth (Alinezhad Sarokolae et al., 2012).

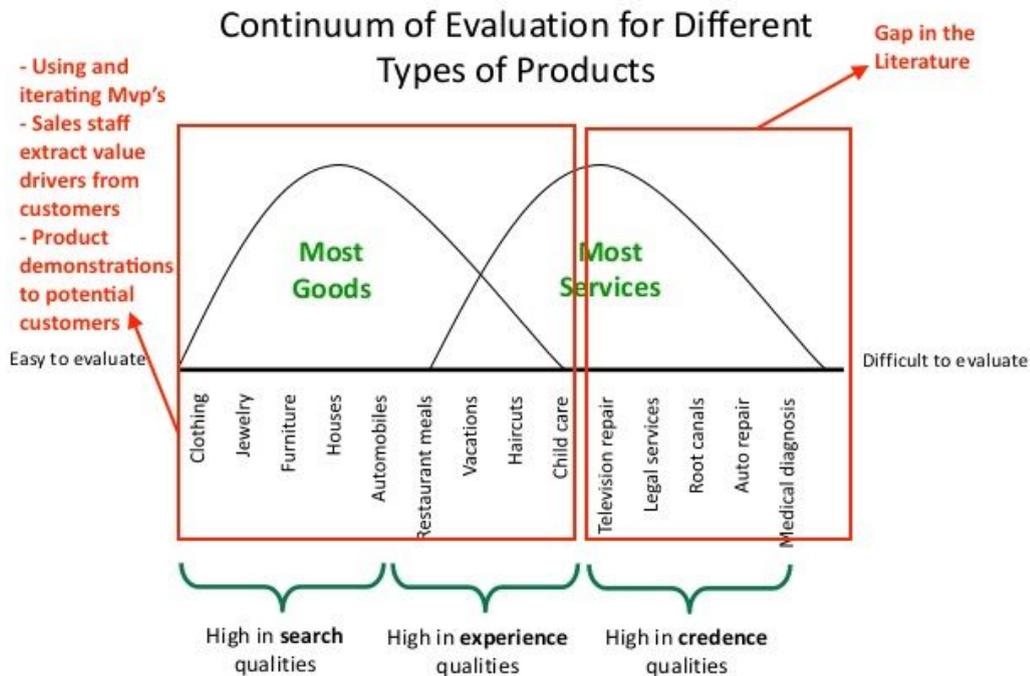


Figure 6: Visualization of the Gap in the Literature (Adapted from Berry and Yadav, 1996)

2.3.3 Competition-Based Pricing

Competition-based pricing or also known as market pricing is another form of strategy that is highly popular among companies. According to Hinterhuber (2008), competition-based market pricing is the most used approach among B2C markets. This pricing strategy suggests that companies should adjust their prices based on the market average price. According to Özer and Phillips (2012) setting a lower price than the market average have a tendency to increase sales while higher price than the market average reduces sales. According to Morris and Calantone (1990) there are different strategies in competition-based pricing as pricing a product could be used to achieve different objectives. In stay out pricing, the company places its products lower than demand conditions to discourage new entrants from the market. Bundle pricing is combining goods and services together to set a higher price altogether. Penetration pricing, using lower than market prices to lure new customers. These appropriate strategies are all related to competition-based pricing and are based on the collective average market price.

Following a competition-based pricing could be regarded as a safe approach. Skugge (2016) argues that companies often follow this pricing model to make sure they are not making any mistakes. Competitor prices act like feedback and creates a playground for a company to set a price that depicts their intentions.

Competition-based pricing often regarded as connected to cost-based pricing. In general companies calculates their costs to justify their break even points to set their prices. They then analyze the market prices to find a suitable profit margin to add to their costs to reach their final price (Hinterhuber, 2008). This effort results in companies to put competitors and their

products ahead of their customers. Due to its nature competition-based pricing works well in mature markets. Companies also follow a similar pricing model with their competitors resulting little to no difference with their competition. These could be regarded as main strengths of the model. However, analyzing market prices is a complex effort and regarded as a tiring process. Companies often changes their prices seasonally in order to keep sales at a desired level. This requires constant monitoring of prices and taking swift actions. Another fact is that working according to competitor prices creates false judgements about costs (Hinterhuber, 2008), this is because competitors could have different cost structures and may be more or less efficient than the company. These could be regarded as main weaknesses of the model.

2.3.4 Cost-Based Pricing

Cost-based pricing (also known as cost-plus pricing) is one of the most straightforward pricing strategies according to the present literature. Skugge (2017) defines this strategy as the most simple pricing strategy to adopt, no external information is necessary, only the costs. In a clear and concise manner, cost-based pricing is adding a calculated margin on top of the cost of production. This margin could be determined with company's courage and business goals. According to Morris and Calantone (1990) there are two different types of strategies for adopting a cost-based pricing model. Target return pricing, where variable and fixed costs of the desired unit are estimated, followed by a rate of return taken times the amount of invested capital on product. The result is divided by estimated sales. Resulting rate of return for a unit is finally added to unit cost to reach at the final price. Other strategy is the markup pricing where variable and fixed costs per unit are estimated followed by the addition of a standard markup model. This model is generally either a percentage of sales or of costs. Courcoubetis and Weber (2003) defines cost-based pricing as a calculated effort. Cost-based pricing could be achieved with the help of optimization tools, a mathematical model for the costs and the profit margin is formed and linear programming is used to optimize the cost and margin balance hence, reaching to the final price.

In manufacture industry, it is not possible to justify the cost of a unit before knowing the production volume. As cost of production includes both fixed and variable costs, variable costs need to be calculated before reaching to the final cost. Volume of the production is based on sales and sales are affected by the unit price. This results in a dilemma where costs are changed according to price and vice versa (Nagle and Hogan, 2006).

As previously discussed, cost-based pricing is straightforward, it could be adopted in a rapid manner due to only needing companies inner informations regarding cost of the production, sales and profit margins. According to Hinterhuber (2008) requiring only inside data of a company is the main strength of the cost-based pricing. However taking only costs and profits into accounts causes certain problems. Skugge (2016) argues that companies that adopts cost-based pricing lose a certain amount of profit due to not taking customer's willingness to pay into account. In a matter of fact competition is also not taken into account while reaching to the desired price (Hinterhuber, 2008). In a clear and concise manner, not taking competitive prices and customer's willingness to pay are the main weaknesses of this pricing approach.

It should be taken into account that present literature regarding cost-based pricing is formed around physical goods. Variable and fixed costs could be dissected from physical products

easily due to their tangibility. However these costs become obscure as the value proposition shifts towards an intangible product. Courcoubetis and Weber (2003) acknowledges this issue by stating that future research is necessary for systematically identify the dimensions of price structure for physical goods versus services. This leads to a certain gap in the literature that need to be explored further.

2.3.5 Navetti AB's Pricing Approach

This section will present Navetti AB's (collaborated case study firm) approaches toward different pricing models. This literature will be used as a secondary data next to relevant literature review.

There are several ways that companies approach pricing and price optimization. All have the same ultimate motive – to improve profits and business performance (Vice President of Navetti Consult TM, 2017), improving profits and business performances could be done by:

- Boosting sustainable sales and profit improvement – managing and optimizing prices in a way that will increase revenue and profits consistently over time
- Reducing business risk – understanding where your product range might be vulnerable to competitor challenges or other external factors such as currency fluctuations
- Securing speed and efficiency – focusing on the internal operations, and how prices can be managed and optimized with minimum resources and maximum agility

But often companies have approached the three strategies in isolation, or only focused on one or two of them in one go. Navetti has a structured approach to pricing and price optimization, these three strategic objectives go hand in hand. The secret is to base a company's pricing strategy on an operational approach to value-based and market-driven pricing.

The key aspects of Navetti's best practice global pricing approach are:

- **Framework:** Systematic approach to pricing throughout the price waterfall
- **Process:** Systematic way of working from item creation to price roll-out
- **Organization:** Built around a well-defined process and framework
- **System:** Dedicated pricing system supporting all components of the framework
- **Data:** Secure data availability and of sufficient quality
- **Compliance:** Capability to follow-up how the framework is adhered, central and local perspective
- **Risk:** Awareness of risks, and actively working to minimize them
- **Governance:** Monitoring of risks and performance, and capability to react effectively

Furthermore, Navetti follows three basic principles for successful price optimization;

1. Understand the customer perceived value
2. Monitor the competitive situation
3. Adjust for local market conditions

The good thing is that this is best done as an iterative process. Getting started is more important than being perfect and 100% accurate from the start. As markets and competitive conditions are constantly changing, there is never a stable time to gather and master all data

before setting off. Instead, the route of “explore – evaluate – evolve” will take you far, and in less time (Vice President of Navetti Consult TM, 2017).

Based on the three guiding principles Navetti formulates the pricing framework, with a focus on aspects such as “What are you selling, and what market position do you want to occupy?”

A first step in customer-centric pricing is therefore to cluster products in ways that have meaning for the customer. A good product classification contains product groups that share similar characteristics from a customer perspective. Differences in features and/or specifications create different customer value points, which means that price differences between these products based on company’s pricing strategy are understood by customers and more easily defended.

The next step is to let pricing algorithms generate an International Reference Price. The price structure should be adapted and managed so that every product is priced relevant to the market conditions in each market. For global companies, this might equate to managing tens of thousands of SKU’s in over a hundred markets. This structured approach can relieve local teams from cumbersome pricing tasks and instead create additional time that can be used for, for example, understanding sales drivers of the different customer types. This kind of systematic operational pricing and price optimization lets Navetti’s clients focus on key business development opportunities, as the system takes care of the tail portion of sales.

With the framework in place the process can now be implemented across the organization and in additional markets. And it is now that the full potential starts to show. A common approach means that learnings can be shared in the organization and best practice references established (Vice President of Navetti Consult TM, 2017). The result on sales and profits will be equally apparent.

To support this approach and operational model Navetti’s system solution Navetti PricePointTM enables to establish structured yet flexible pricing strategies that allow them to make highly informed business decisions instantly.

2.4 Implementing Value-based pricing

In the previous section (2.3.2) it has been concluded that value-based pricing is about understanding customers’ wants, needs and their perception of value towards a product (Skugge, 2017). Implementing value-based pricing successfully requires studying customers and their interactions with products that a company has to offer. According to vice president of Navetti Consult TM (2017) companies often find themselves failing due to lack of data regarding value perceptions of customers. When a customer purchases a product they will have certain expectations before they make the transaction. Meeting these expectations is only possible when offered product’s created value equals to customer’s expected value from the product. This perceived value’s estimation could be done by following certain ways. According to Harmon et al. (2004) experienced salespeople could obtain feedbacks from selected customer’s. Product features could be evaluated and categorized according to these feedbacks. Feedbacks could be dissected and organized into appropriate data that could be interpreted by the company. It should be taken into account that this process differs according

to company's value proposition. Collecting value perceptions of the customer for a physical product is straightforward. Knowledge that is gathered from the customer is explicit and is indeed explicit. It could be dissected by experienced staff. Berry and Yadav (1996) argues that understanding a customer's need toward a physical good is much more luminous than a service. Customers could understand the value of a tangible product by either experiencing it or searching about it. However this issue becomes obscure as customer's fail to analyze their experiences when purchasing a service. Experiencing a service develops tacit knowledge on the customer. This tacit knowledge is hard for companies to dissect and evolve into data ready to interpret. Studying a service's perceived value is a communicated effort rather than a calculated one (Hinterhuber, 2008). Due to this issue, in the present literature, ways of obtaining value perceptions from the customer regarding services needs further exploration and research. According to Courcoubetis and Weber (2003) research is necessary to identify differences of pricing structures between physical goods and services. This creates a gap in the present literature that needs to be explored.

Companies that offer tangible products to their customers implement value-based pricing by iterating their goods with selected customers. According to Ries (2011) companies use certain customer development methods to find the appropriate product to satisfy their needs. Minimum viable products could be built and tested with selected customers. After numerous iterations finalized product could be reached. From a more practical perspective vice president of Navetti Consult TM (2017) emphasizes that giving customers sample products and collecting their feedback could be used to develop products accordingly. These methods are equally appropriate in understanding customer's perception of value toward a tangible product. Companies that offer tangible goods as their value proposition often follow good-dominant logic. Value is created without company's interference as customer only interact with the good that the company produce (Cusumano et al., 2015).

Implementing value-based pricing to companies with intangible value propositions is a complex effort (Hinterhuber, 2008). According to Johnston and Clark (2008) companies that offer services often have front-office dominant logics. This means companies actually interact with customers as service creates value for them. This issue complicates the value creation equation. Obtaining customer's perceived value becomes obscure as created value could be either from the service or the company's interaction. According to Berry and Yadav (1996) services possess credence attribute i.e customer's can not fully express the created value even after experiencing the service. Together with this issue following customer development models from Ries (2011) or Hinterhuber (2008) become irrelevant and not implementable. This results in a gap in the present literature. Value-based pricing utilization strategies are for physical goods and can not be used properly for services.

2.5 Review Summary

In this section, relevant present literature regarding pricing strategies, value-based pricing models, utilizing value-based pricing for service contracts will be discussed.

Existing literature presents strengths and weaknesses for different pricing models. Companies could choose to optimize either one or more than of them to capture maximum value from their customers. This has been justified with the additional secondary data dissected from collaborated firm Navetti AB. Present literature proposes to adopt certain methods for utilization of a value-based pricing strategy. These methods include iterative product

development, getting product feedback from selected customers and observing customer behaviour with the help of an experienced sale staff. However these methods could only be utilized if the said product is tangible (Berry and Yadav, 1996). Courcoubetis and Weber (2003) argues that utilization of pricing models for services requires different approaches and need to be explored further.

As value-based pricing model could generate the most possible profit for companies, it also provides a competitive edge that can not be imitated easily. Plenty of literature has been dissected to reach a conclusion that companies that offer customized goods or services could take advantage of value-based pricing in an appropriate way.

What seems to be the gap in the literature that have been analyzed is that there is no research regarding how value-based pricing approach could be utilized in companies that offer intangible services to their clients. Present literature does not provide ways of linking perceived values toward a service contract to their prices.

This study will attempt to make contributions to the existing literature by analyzing how value-based pricing could be utilized in service contracts with a case study. Empirical data will be collected and analyzed in order to reach appropriate outcomes that hopefully fills the gap in the literature. Answering the research question will allow this research to explore new methods that are applicable to service contract regarding utilization of a value-based pricing strategy.

3. Method

In this chapter the research methodology used to conduct the study is presented. A case study at Navetti AB's Stockholm consultancy office has been chosen as the main research method. Case study will consist of primary data, dissected from interviews. In this chapter each method that has been adopted will be described, discussed and justified based on their main strengths and weaknesses. Initially the methodological approach will be presented followed by research design and its underlying methods. Finally reliability and validity of the study will be discussed.

3.1 Methodological Approach

Since the research question concerns understanding and analyzing an existing approach on a differentiated context, an inductive approach has been utilized. Limiting the study from a broad context like pricing was necessary in order to analyze a gap in the literature. To reach appropriate outcomes, a descriptive case study has been chosen as a methodological approach. Descriptive case studies are identified where the objective is restricted to describing current practices in a given context (Adams and Schvaneveldt, 1991). Main objective of this research is to successfully answer the research question of "*How to utilize a value-based pricing strategy in service contracts?*". Pricing strategies is a part of an ongoing, developing literature. However a gap has been found in the literature that needs clarification. Due to the fact that pricing strategies is a current practise, a further description is necessary so that the gap can be filled. This justifies the use of the descriptive case study as a methodological approach.

A Case study has three main strengths: first and foremost, the phenomenon is studied in its actual context and natural setting, resulting in a deeper understanding of the problem (Adams and Schvaneveldt, 1991). Second, its possibility to reach an answer for questions like why, what and how with an understanding of a studied phenomena and third, the case study allows descriptive investigations (Voss et al., 2002). Studying a single phenomena in its natural setting can imply in-depth understanding and even though limited to exploring only a few aspects of the collaborated case company, results can be unique and stimulating (Adams and Schvaneveldt, 1991).

According to Bonoma (1985), a descriptive case study starts by selecting the case. It needs to be critical and connected to the research question. A pricing consultancy company has been chosen for this reason. Preliminary investigations is the second phase of a case study where authors starts the process of becoming familiar with the context. Bonoma (1985) refers to this process as a drift. Data collection is the third phase, in here interviews have been collected from various interviewees with different employees of the collaborated firm. These data will become the primary data that will be analyzed to further the research. Analysis of the data will follow the data collection. Interview results will be dissected in an effort to answer subsequent research questions. All subsequent research question answers will be analyzed to reach a final response to the main research question.

3.2 Research Design

In order to reach appropriate outcomes, an iterative approach was used during the study. Aim of this paper was to form a theory from observing a case environment. Due to this reason an inductive approach was chosen (Adams and Schvaneveldt, 1991). Formulation of the problem, research question development and purpose of the study were continuously updated as authors of this paper become more familiar with the case and with the collaborated company (Adams and Schvaneveldt, 1991). Problem of the study was deducted from a thorough literature review and with preliminary interviews with vice president of Navetti Consult TM (2017), the supervisor of the study in the Navetti AB. Problem formulation was based on the description of the thesis and the case study.

Objective of this research was to explore and describe how value-based pricing could be utilized in a service contract. According to vice president of Navetti Consult TM (2017) pricing a service with a value-based approach is a lot more different than pricing a physical good. This problem was used to search the literature to justify a gap in the accumulated knowledge in the price management. Courcoubetis and Weber (2003) emphasizes that systematical differences between pricing a service and a tangible product need to be explored further. With this problem in mind authors of this paper discussed with vice president of Navetti Consult TM (2017) to clarify the scope of the study. Price management and pricing strategies are broad and widely adopted phenomenons that makes a thorough analysis feel overwhelming. In order to research the problem that has been deducted from a literature gap, research questions were based on certain limitations. First limitation was the industry of the analysis. Due to Navetti AB's collaboration with clients mainly based in manufacturing industry and this industry forming the biggest GDP margin of leading countries it was chosen to fit the research. Another limitation was based on the service context. Intangible products come in many different propositions and in order to analyze a phenomena and try to describe

an approach, service contracts have been chosen. After a thorough literature review a description of a service contract has been dissected and presented in the literature review chapter. Structured interviews were prepared to form the primary data of the study. According to Adams and Schvaneveldt (1991), secondary data need to exist in parallel of primary data to make analysis and reach conclusions. Secondary data have been gathered by reviewing present literature regarding pricing strategies and services in the manufacture industry. Another practical secondary data was Navetti AB's best practises and accumulated tacit knowledge toward pricing a service contract. After analyzing the empirical data of interviews, problem formulation, purpose of the study and research questions were updated. The writing process of this study progressed simultaneously as more data were made available to authors.

Description of each component in the research design will be presented in the upcoming sections.

3.2.1 Pre-study

A pre-study was conducted in the beginning of the research for this thesis. Aim of the pre-study was to gain more insight regarding pricing strategies. Apart from this, accumulating tacit knowledge about the case study collaborate firm is necessary for formulating interview guidelines, choose appropriate interviewees and collect necessary secondary data for the research. According to Adams and Schvaneveldt (1991) a pre-study is the process of becoming more familiar with the case environment and the context of the research. Outcome of this preliminary investigation allowed the definition of a problem and subsequent research questions before taking any concrete decisions affecting the aim of the research.

The pre-study consisted of unstructured interviews with employees of Navetti AB. Unstructured interview method was chosen to explore the case environment and accumulate maximum knowledge regarding the context. Another advantage of an unstructured interview was for interviewees to provide their own words. Only keywords of pricing strategies, pricing process and service contract were used as a guideline to direct interviews to the problem and research questions. According to Adams and Schvaneveldt (1991), unstructured interviews are suitable to understand and formulate a problem.

Interviewees for unstructured interviews were chosen based on the suggestion of the supervisor at Navetti AB. They were chosen based on their individual expertise regarding the context of the study. Due to Navetti AB being a consultancy company, client relations of the employees were also taken into account. Employees with relations to manufacturing industry were chosen. There were a CEO of the company, project manager, vice president of services, senior consultant and a pricing analyst. Spreading interviews to different positions allowed the gathering of diverse knowledge regarding both the case environment and the context of the study.

Interviews were held in conference rooms at Navetti AB's office in Stockholm. Face-to-face approach was chosen to gather as much information as possible. Names of the interviewees were excluded due to anonymity. Instead their respective positions in the company were provided. This could be observed in Appendix 1.

Navetti AB is a pricing consultancy company. This allowed the collection of explicit secondary data regarding pricing processes. These data were collected from PowerPoint

presentation, best practices frameworks and collaborating with personnel on a day to day basis.

3.2.2 Literature Review

Parallel with the study, literature sources regarding the context of the case study continuously analyzed and studied. Existing research about pricing strategies, pricing processes, service contracts and manufacture industry were researched to act as a secondary data. Formation of a foundation for the research made possible with this secondary data (Adams and Schvaneveldt, 1991). Literature review allowed understanding qualitative primary data through interviews within context. Literature review also helped understanding how the research designed to be formed.

Reviewed literature consisted of large number of articles, journals, best practise models, industry reports, books, lectures and other published works. The literature was found mainly on scholarly databases such as Google Scholar. Books were found at the library of Kungliga Tekniska Högskolan.

According to Adams and Schvaneveldt (1991) keywords need to be developed before beginning a thorough review of the literature. This studies keywords were value-based pricing, pricing process, pricing strategies, service contract and manufacture industry. These were used to search for various publishments available in the web. A spreadsheet was used to gather publisher names and articles. Collected data then analyzed and key points regarding the study were taken out to be used to support the validity and reliability of the study.

In order to gather tacit knowledge and have a practical perspective regarding the context, interviews with industry experts were done. This helped to explore the literature with a broader mindset and clarified the articles to be used to support the research.

As this study was limited in time, it is not possible to say that all relevant literature regarding the keywords have been covered. Relevant literature also included old articles about the industry and the context. These issues could decrease the validity of the research thus concise information and analysis tried to be used.

3.2.3 Interviews

Semi-structured interview method was adopted to handle the collection of the primary qualitative data for the study. Primary data collection involved thorough interviews, followed by a guideline that could be seen in Appendix 2. Interviewees were CEO of Navetti AB, project manager, vice president of services, senior consultant and a pricing analyst. Diverse opinions about pricing was captured from the interviewees of Navetti AB.

This study includes all of the appropriate industry experts of Navetti AB. Industry of choice was manufacturing and interviewees were chosen based on their expertise with the context. Consultants that interacts with clients that offer service contracts were used in the interviews to validify the collected data and link them to subsequent research questions.

All the interviews were semi-structured. An interview guideline was formulated from the preliminary study and questions were chosen to be open ended. According to Adams and

Schvaneveldt (1991) semi-structured interviews allow the researcher to ask questions that understands how an interviewee thinks, feels or does about a given context. This approach was necessary for an inductive methodological approach. As theory could be formed only by the help of analyzing primary data and studying secondary data. Interview guideline includes questions about the necessary keywords of this study (Adams and Schvaneveldt, 1991). Questions were asked with aim of obtaining information about service contracts and utilization of value-based pricing in manufacture industry. Advantages and disadvantages of other pricing strategies were tried to be collected from interviewees in order to cross-reference to the literature review. 45 to 90 minutes were elapsed during a single interview, both of the researchers were tried to exist during the interview to negate the interview bias (Bell, 1995).

3.2.4 Data Analysis

This section provides information regarding how interviews were analyzed.

Content analysis approach was chosen to analyze collected data. This approach was chosen in order to avoid using preconceived categorized information and instead letting themes to be derived from transcribed interviews (Hsieh and Shannon, 2005). Data were read repeatedly and independently to become familiar with the collected information. This process was crucial to become experienced with the data in order to deduct separate descriptions of events, models, phenomenas and opinions that can be used in identification of patterns (Tesch, 1990).

Content analysis used to analyze qualitative data consist of three main phases. These are reducing the data, restructuring the data and detextualizing the data (Adams and Schvaneveldt, 1991).

Reduction of the data is the phase of removing unnecessary content from the primary data. This filtering was done by reading interviews with respect to their relation of the research question and its subsequent counterparts. Content that was not relevant to the research question were tossed away and not taken into account.

Restructuring the data has been done by lining each interview according to their dates. Data was organized in a chronological order and they are read by the researchers independently from one another to reduce the risk of group thinking bias (Bell, 1995). Notes were taken according to the keywords. Interview answers were grouped by their relation to pricing strategies, pricing process, service contracts and manufacture industry. As a result, different perspectives about certain keywords were drawn together to reach appropriate outcomes.

Detextualization of the data done by visualization of the results, mind mapping and logical trees were formed to understand and interpret analysis process a more intuitive and exploratory. Themes and categories were matched with one another and overlapping information were brought together.

3.3 Reliability and Validity of the study

Limitations of a research could be defined as its main weakness or deficiency (Adams and Schvaneveldt, 1991). These weaknesses will be emphasized as reliability and validity of this study. Reliability refers to the ability of another researcher to reach the similar results.

Validity is the ability of collected data to reflect appropriate relations both to the context and the formulated problem of the study.

Adams and Schvaneveldt (1991) argues that combining different methods is allowed while using a case study approach and this process could increase the validity of the study. Although the case study was done with only a single company, different methods and data were available to researchers to reach reliable conclusions. Limiting the study to the context of manufacturing industry and service contracts were done due to time limitations, this may decrease the reliability of the inducted theory. However, service contract relation to the manufacturing industry was observed and this relation was confirmed with a different context to increase the reliability of this study.

3.4 Sustainability

Authors of this thesis have put a lot of effort in terms of sustainability. From a materialistic perspective, paper usage is one of the most important issues while developing dissertations and thesis'. Authors have utilized digital writing tools such as Evernote™ and Google™ Docs in order to prevent excessive usage of paper. Another aspect were the interviews. They have been handled with a sustainable mindset. Interview sessions were saved by recording of interviewees voices, no papers were used in these sessions.

This study addresses the utilization of a value-based pricing approach for service contracts in the manufacturing industry. In order to create more value for their services, this study tried to spur sustainable actions of service providers. Preventive maintenance saves money and more importantly energy for manufacturers, resulting in a cleaner future. Furthermore, businesses could focus more on environmental friendly solutions for the sake of creating more value for their customers.

3.5 Ethics

Interview phase of the study was the main data collection part. Due to this reason proper ethics for this method need to be followed and taken into account (Adams and Schvaneveldt, 1991). Researchers asked all of the interviewee candidates for their consent to take part in this study. They were given a choice whether or not to share their names. This study adopted the general principles of ethics that are emphasized in Brinkmann (2014). If the interviewee choose to hide their name, this study used their proper position in the collaborated firm. No personal questions were included in the interview guideline and every content that an interviewee has given were within their consent. Every interviewee were told about the study and that it will uploaded to internet prior to each interview. (Brinkmann, 2014)

4. Navetti AB

4.1 Historical Background

Navetti AB was founded in 2003 as an initiative within the Atlas Copco Group to establish a completely new pricing methodology for the global aftermarket business. The main objective

was to increase profitability by replacing cost-based pricing with value-based and competition-based pricing and to obtain a sustainable solution by introducing a software tool supporting the concept. By building core knowledge together with customers and by heavily re-investing capital in method and product development, Navetti has continued to grow and is today one of the leading providers of pricing solutions to numerous industries worldwide. Examples of customers where Navetti has implemented global solutions are: ABB Group, Alfa Laval, Airbus Helicopters, Atlas Copco, DeLaval, Electrolux, GE, Heidelberg, KONE, Orio, Sandvik, Scania and Wärtsilä.

Navetti's head office is located in Stockholm with local offices in Düsseldorf, Amsterdam, Paris and Chicago and a design centre in Macedonia as well as representation in Finland. Today Navetti AB, employs more than 80 people within the different local offices. The core values in Navetti are competence, commitment, and to be easy and fun to work with.

Navetti's management team consists of experienced individuals from the manufacturing industry. Navetti is mainly owned by its founder Styrbjörn Horn and by its co-founders. In mid-2008 the company decided to conduct an emission to a private investor, Göran Grosskopf (Chairman of IKEA). The objective with the emission was to strengthen the company's profile and have a solid owner structure with a long term commitment. Styrbjörn Horn and Göran Grosskopf have an industrial heritage and believe in the long-term philosophy: Stability, Profitability, and Growth. Navetti is a private company and does not disclose financial statements, but the company has twice been awarded as a Di Gesell Winner, is AAA graded and has highest creditworthiness by UC.

Navetti AB is also ISO 27001:2013 and SOC 1 & 2 Type 2 certified. **International Standardization Organization (ISO)** certification means that Navetti can officially guarantee quality, safety and efficiency in the processes for Navetti's clients. Specific standardization helps Navetti to "manage the security of assets such as financial information, intellectual property, employee details or information entrusted to [Navetti] by third parties.

In addition, the **Service Organization Control (SOC)** certification means that Navetti has taken steps to ensure greater governance and control over financial reporting, security management, processing integrity, confidentiality and privacy

As a result of ISO 27001:2013 and SOC 1 & 2 Type 2 certification, Navetti ensures it's clients to be confident in the new policies that have been put in place to safeguard any and all customer data. The new carefully defined processes for managing client information in Navetti's day to day operations provides assurance for Navetti's customers regarding the confidentiality of their data.

Navetti offers a unique combination of advanced price optimization software and consulting expertise. Navetti PricePoint™ is the acclaimed software suite, an essential tool for day-to-day price optimization across all aspects of pricing strategy. This is supported by the expertise of the consultants at Navetti Consult™ that help customers achieve increased profits faster through insightful value-based pricing strategies and rapid system deployment. Originally developed to solve the complex pricing challenges in large international B2B markets, Navetti's approach of Operational Pricing is today equally at home in B2C

e-commerce applications, as demonstrated by a large and growing number of blue-chip customers.

4.2 Methodological Approach

4.2.1 Project Approach: 3i model

Navetti typically conducts projects according to the 3i model. This model ensures that the desirable solution responds to the client needs, the success of the methodology implementation and to set the path for a continuous improvement process, especially in this fast changing business environment.

During the insight phase, Navetti analyzes the current processes, methodologies, system support, organizational setup as well as governance risk and compliance guidelines in order to define the target state, quantify the potential and establish a step by step working process. This can be achieved by conducting a joint workshop, pre-study or pilot. Clients that have a clear understanding of their current situation and the vision for the future can instead of a separate insight activity cover these topics during the first weeks of the full implementation project. In this case the Framework Design and Proof-of-Concept phase will be the insight phase.

In the implementation phase, Navetti develops the pricing strategy, price rules, value drivers and dynamic influencing factors to achieve the determined target state. Moreover, Navetti integrates and implements Navetti PricePoint™ to secure fully operational and efficient pricing, costing and performance management according to the business need of the client as agreed in the scope of the project. Navetti also accompanies the client in the training, as well as the internal change process that it implies.

Furthermore, through the improve phase, Navetti provides support for a continuous development. Navetti is always looking for a long-term partnership with its clients. The client shall after the implementation phase have the capability to run the operations completely independently. However, Navetti available to support additional business development on strategic or operational level, by adding industrial apps on the Navetti PricePoint™ platform, to conduct market research or price optimization initiatives.

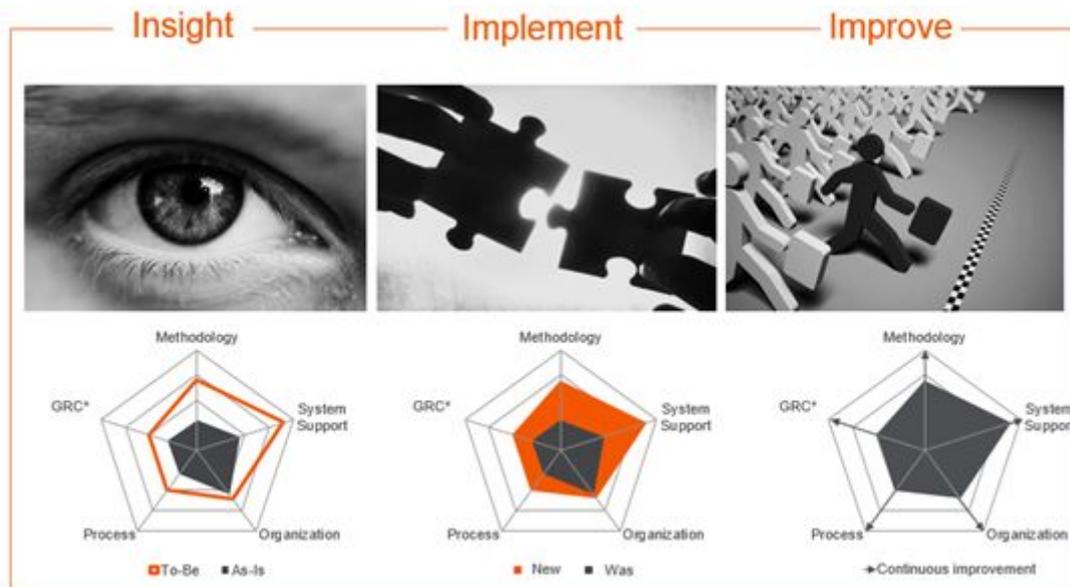


Figure 7: Navetti AB's 3i Project Management Approach (Navetti TM, 2017)

5. Findings from interviews

In this chapter, findings that were gathered from interviewees have been presented. By utilizing a content analysis approach authors reduced the findings so that they will align with both main and sub research questions. Data have been restructured according to the sub research questions.

In the section *Best Practice Tactics*, case study collaborator Navetti AB's pricing approach were presented to understand how value-based approach could be utilized within manufacturing industry.

In the section *Understanding Customer's Value Toward a Service Contract*, findings regarding the price of a service contract and factors that affect its price were presented. After that, findings that shows how manufacturers perceive the value of a service contract were presented.

5.1 Best Practice Tactics

5.1.1 Detailed pricing approach, methodology of Navetti AB

According to the interview conducted with the vice president of Navetti Consult TM (2017), Navetti's approach to a successful implementation of value-based and competition-based pricing starts with the creation of a Business Structure – a structure of, from pricing perspective, homogenous commodity groups (product families). An already existing product hierarchy is a good starting point; it can be analyzed in and adjusted for pricing purpose if needed. These adjustments could include more detailed segmentation as well as the dissolution or the combination of some of the existing product families

In the next step, a suitable price logic and the appropriate value driver is defined for the prepared product families. This is usually done within a workshop by considering the

combination of external (results of the market surveys) and internal (Sales Director, Product Managers) know-how to create a proper structure.

The creation of the Business Structure should not be considered as a one-time effort. It is more a continuous process of critically reviewing and adjusting the structure if necessary during or post project. During the project phase, Navetti facilitates joint workshops with her clients.

The initial workshop provides a Business Structure 1.0. When assigning the spare parts to the appropriate families while progressing the project, it is typically requested to adjust the Business Structure – the version 2.0 is developed. When creating the price logic and rules later on, empirically some further areas of potential improvement in terms of the Business Structure will result in the Business Structure 3.0. Down the road on a long term view, there might be the need being raised for some additional adjustments, especially when adding new products to the portfolio.

Categorization of spare parts into the right families and assigning the values for the defined value drivers are then normally done by employees with the appropriate product know-how. Navetti offers categorization tools both as Excel-tool and as project version of Navetti PricePoint™ (Navetti's proprietary pricing software). Navetti's categorization tools and continuous quality reviews throughout the categorization phase are of high importance to secure an efficient and high quality categorization.

After categorization and setting up the business structure. Price management aims to develop high quality price structures for the defined product families. *High quality pricing* means:

- Easy to explain and defend towards the customer
- Right positioned compared to competitors
- Right positioned compared to customer perceived value

To achieve this, the price rules are built based on mathematical equations considering the assigned value drivers. By using an appropriate weighting of the different value drivers, the price relations between different items within the same families are managed. Setting these rules by making use of the item attributes is considered as Price Logic.

In addition, the Price Level has to be determined. This means setting the optimal price level of families in relation to other families or competition.

Determining the Price Logic and the Price Level is the central activity of the pricing project. It is done based on research activities as described in Market Research by gaining information from internal and external sources.

The created logic is applied to calculate the International Reference Price (IRP) for the categorized products. This reference price is set centrally and used as base to adapt the price structures to the different markets –which is called market management.

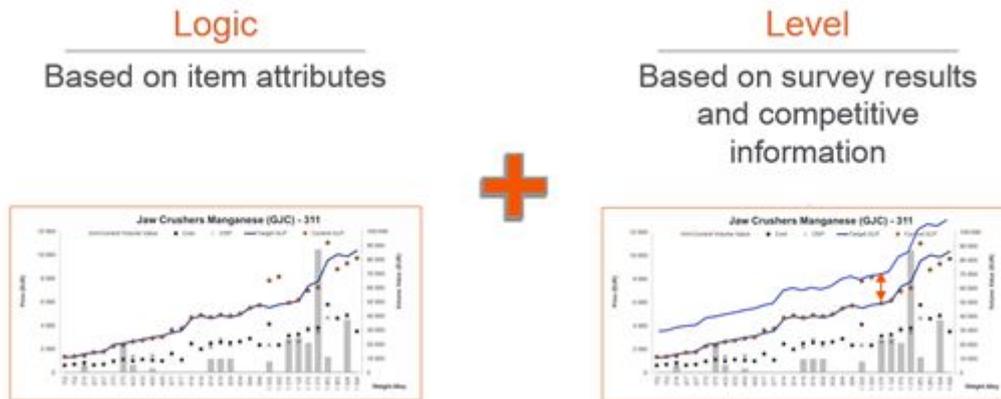


Figure 8: Price Logic and Price Level (Navetti TM, 2017)

The term Market Management stands for the adaptation of International Reference Prices (IRP) to Local List Prices (LLP) considering present market and competitive situation in specific markets. Each market in scope will be assigned a Market Level Factor per selected assortment group. The adjustments are done by a diversified approach considering different market situations for different product families.

When assigning Market Level Factors per market and assortment groups, it is crucial to manage and control the pricing corridors, i.e. the gap between the highest and lowest Market Level Factor per selected assortment group.

In order to get implement Navetti's pricing approach to their clients vice president of Navetti Consult TM (2017) has explained that, market research is a crucial standing pillar in price management framework. All components of the framework require a high level of transparency. Therefore enquiring the mandatory information becomes a highly significant and can be conducted by accessing various sources:



Figure 9: Price Harmonization Approach (Navetti TM, 2017)

Utilizing the client's internal sources means in particular processing information already existing within the company. Examples for this are a purposeful analysis of historical prices and sales information, the structured processing of existing knowledge by having workshops with product or market experts or the analysis of price complaints to identify further potential areas of improvement.

External sources are typically used in well-defined and delimited surveys. The appropriate market research methods are selected based on the key questions where after the proper materials are created. The final collection of the relevant information can be realized in both ways, as personal interviews as well as web-based surveys.

After conducting the market research, the gathered information is processed in order to answer the previously defined questions. Below are some of the research methods described which Navetti propose to conduct during projects.

Competitor prices

Navetti enables to utilize competitor price information already available at client's database. Additionally, web scraping technology is used to gather market information. Web scraping is software extracting information from websites. It is useful for gathering competitive prices from online shops or catalogues. To enable this, first of all the relevant websites need to be defined. Based on the spare part numbers, cross references or value driver information, the collected information is supported with market information gathered from the client's market organization.

Value Equivalence Survey

Value equivalence surveys are designed to give a better understanding of clients positions towards competitors with respect to price and perceived value (aspects including e.g. product quality, delivery time and precision). It is a key survey to understand how to position clients' prices towards competitor prices gathered in the projects.

Macroeconomics and Local Market Conditions

The evaluation of macroeconomic information is important when differentiating price levels for different countries and economic markets. Analyzing economic circumstances provides information on the willingness to pay of consumers and therefore on the achievable prices. A typical survey is designed to provide market specific conditions, per selected product assortment, about the incentive to look for alternatives, market share, frequency of price complaints and possibilities to source from alternative suppliers.

Value Survey

Value Surveys are used to determine the perceived customer value of spare parts. This survey is typically performed on a limited number of highly valuable proprietary products and can be used for different kind of comparisons:

- Comparing similar spare parts, e.g. generator (250kw 3-phases) with generator (250kw 6-phases)
- Comparing different products, e.g. gearbox NM900 with generator (250kw 3-phases)
- Comparing the spare part with the device, e.g. gearbox NM900 with turbine

Conjoint Analysis

The Conjoint Analysis is used to determine the perceived value of specific product attributes (e.g. technical features, availability, brand) and the associated willingness to pay for it. This allows for example to find the right price difference for two products within the own portfolio or even to evaluate the achievable price premium compared to an alternative supplier.

Installed Base and Theoretical Aftermarket Share

By combining information on installed base sales quantities for product and expected consumption of certain spare parts, a theoretical market volume for the spare parts can be determined. Making use of this market volume – by comparing it with the sales orders for the appropriate spare parts – allows to derive the aftermarket share or customer loyalty. Both could be an indicator for a too high or too low price level.

The above described research can be done with multiple target groups such as end customers, dealers external to clients and within the own customer service and sales organization as well as product experts.

Another key takeout from the interview with vice president of Navetti Consult TM (2017) is that due to the breadth of the spare part assortment it is not feasible to conduct such market researches for the whole assortment. An important part of the preparation and design of the market survey is therefore to find a good ratio between gaining a sufficient amount of information to price the whole assortment and performing this with a reasonable effort. Navetti has an extensive experience in preparing, creating and conducting different kind of market research activities as well as analyzing the results and deriving the conclusions required for both the pricing framework and the price rules.

5.2 Understanding Customer's Value Toward a Service Contract

In this section findings related to understanding how customer's value perception toward a service contract were presented. Content of this section were dissected from interviewees that have extensive experiences in pricing of services.

Interviews are conducted with 6 Navetti AB employees with seniority levels varies between 2 to 15 years in pricing.

Interviews are designed with a goal to understand how customers perceive value towards service contracts and which factors increases the utilization of service contract pricing. Furthermore, research question “How to utilize a value-based pricing strategy in service contracts?” and sub-questions 1: “Which factors predicts service contract prices in manufacturing industry?” 2: “What is the perceived value from manufacturer perspective toward a service contract?” 3: How Navetti approaches value-based pricing strategy for their clients? are taken as the main focus points of the interviews.

Due to similarities of the questions and findings from Navetti AB's employees answers, it is not preferred to present each interviews answer separately. Interview results are compiled presented as a synthesis of findings. Main themes discussed during the semi-structured interviews and interview guideline is found in Appendix 2.

Since the roles and experience of the interviewees varies (Appendix 1), asked questions and discussions are developed and adjusted according to the interviewees experience in pricing and role in the company.

5.2.1 Value of the service contract

Interviewed employees described the certain approaches could be used to understand the value toward a service contract and explained their experiences with their clients discussing the service contracts. Mainly, value toward a service contract can be summarized into three focus points as risk reduction, guaranteed availability and planning security.

Risk reduction is defined as an important value toward a service contract by the majority of the interviewees since expert services reduces the risk of having to perform unscheduled and expensive repairs. Customers perceive multiple benefits when using expert services. These benefits must be identified, structured, quantified and reflected in the pricing of the service portfolio. One of reasons that customers buy service contracts is also reduced hassle which can be elaborated as leading to improved uptime, increase in peace of mind, improved expense predictability, transferred responsibility to service provider and consolidation of individual requests.

Another important value proposition of a service contract is guaranteed availability. Guaranteed availability is critical for most of the industrial companies due to high volume of production and expensive opportunity costs related to machine failures. With a service contract and well defined service level agreements guaranteed availability can be ensured with a always in stock spare parts and easy-accessible service expertise with quick response time . From the one of the interviewed project managers experience, guaranteed availability in the service contract agreements establishes a better relationship with the end-customer, increases the communication in sales and can be productified as an insurance for the customer.

Planning security is a crucial value for customers in order to project downtime and schedule preventive maintenance activities. According the interviewees, in many industrial manufacturing companies, managers are measured based on actual expenses compared to budget. With a service contract agreement, budget is defined and variances do not exist. Therefore service contract is an important part of controlling the planning and securing the budget.

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Interviews are conducted with Navetti AB employees with seniority levels varies between 2 to 15 years in pricing.

Interviews are designed with a goal to understand how customers perceive value towards service contracts and which factors increases the utilization of service contract pricing

Areas such as pricing of service contracts in manufacturing industry, utilizing value-based pricing for an intangible product and how Navetti AB approaches value based pricing for

their customers are investigated through the interview guideline(appendix 2) with conducted semi-structured interviews.

5.2.2 KPIs that affect the price of a service contract

Since Navetti AB mainly works with industry leader manufacturing companies in B2B environment, many interviewees emphasized and focused on the importance of KPIs in terms of quantifying the value of service contracts and customer's perception towards a value contract.

Value propositions such as risk reduction, guaranteed availability and planning security needs to aligned with customers KPI's and quantified for a effective communication. A senior consultant among the interviewees, has categorized KPIs into internally and externally focused. Internally focused KPIs are described as ;

- Margin over time
- Sales volume (incl. spare parts)
- Opportunity (hit rate)
- Price level

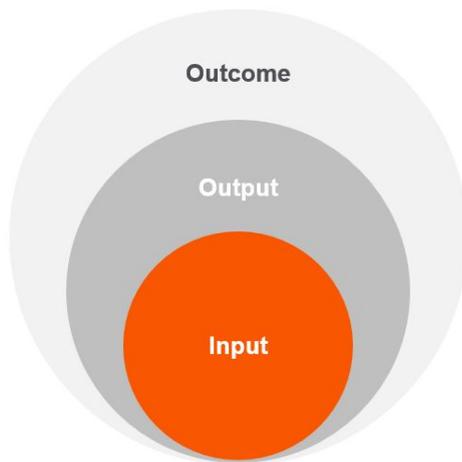
And customer focused KPIs are described as;

- Meantime between failures
- Improved customer output
- Safety
- Customer satisfaction
- Response times
- Reduced hassle
- No need of making individual requests
- Improved uptime
- Expense predictability
- Peace of mind
- Responsibility is transferred to service provider

These KPIs should be monitored continuously and alerts should be set up to be notified proactively. Price of a service contract varies according to these internally and customer focused KPIs.

5.2.3 Input Output Outcome Approach

According to the interviews, Navetti AB follows a model called input, output and outcome approach in order to materialize customer's needs and value drivers. Application of this model could be seen in Figure 10.



- Outcomes are measurable impacts delivered by services providers that can be assessed objectively by buyers of these services
 - Examples include performance based and gain share contracts
- Outputs are measurable, discrete units of work undertaken to realize the desired outcomes:
 - Examples include standard services and device/application based contracts
- Inputs are the resources used to deliver outputs:
 - Examples include FTEs sourced from a service provider, capacity procured, etc.

navetti

Figure 10: Navetti's input output outcome approach (Navetti TM, 2017)

5.2.4 Service Level Agreement

Manufacturers in the industry have a tendency to sign deals that sets the boundaries of a service contract with certain KPIs, these boundaries are protected with penalty levels, resulting a penalty fee when the service provider fail to achieve expected results. These negotiated deals are called service level agreements. According to vice president of Navetti Consult TM (2017) SLAs are necessary in the manufacturing industry for service providers to sell their service contracts. As in B2B markets companies care less for commercials and product placements and more for previous experience and providers ability to deliver. These aspects are all considered in a service level agreement.

6. Analysis and Discussion

In this chapter, primary data that have been gathered from Navetti AB interviewees' will be analyzed based on the secondary data that have been gathered from an extensive literature review.

In the section *realization of credence attribute in a service contract section*, ways of understanding the perceived value of a service contract were presented.

6.1 Realization of Credence Attribute in a Service Contract

Intangible products, service contracts in this study, have obscure attributes that are challenging to justify and understand to calculate their respective values. Physical products can be observed, tested, searched in the market, compared with a substitute to understand and calculate its value. Companies use these ways to understand how customers creates values with their products. These attributes of physical products are called search and experience, where customers could understand a good's value before or after using them. However when

a customer can not explicitly justify a product's value even after experiencing it, utilizing a value-based pricing strategy become unfeasible and out of the question (Berry and Yadav, 1996). According to Berry and Yadav (1996) attribute of intangible services that makes it hard to be evaluated are called credence attributes. In order to link perceived value with a service, these attributes need to be realized and clarified.

Interviews with industry experts and pricing consultants showed that in manufacturing industry there are certain best practices and ways that materialize the perceived value of a service contract. As previously stated, this study described a service contract as *an intangible value proposition that includes but not limited to maintaining client's machines continuously for a negotiated amount of time, while taking necessary actions for keeping them working in an agreed efficiency*. In manufacturing industry, realization of the credence attribute of a service contract comes down to these agreed efficiencies. An approach for understanding a service contract's value is called *Input Output Outcome*. This method has been adopted by maintenance service providers to show their contract's values to their customers. Another approach to materialize a service contract to understand its value is the *Service Level Agreement*.

6.1.1 Materializing a Service Contract's Value with Input Output & Outcome Approach

Input, Output & Outcome approach is the common method used by service providers in manufacturing industry. It allows providers to show their contract's value to their respective customers.

Service provider starts by defining the service, for this study it is a maintenance service. As the value proposition has been defined (Cusumano et al., 2015) provider then calculates the amount of inputs required to deliver this service. Inputs for a service contract include but not limited to, FTE of service provider employees, spare parts that will be used to repair client's production unit, tools that will be used by the service provider employees. These inputs define the proposed value of a service contract and paint the picture of a rather obscure situation.

Outputs are the desired and created values by using necessary inputs. According to this study, outcomes of service contracts are properly maintaining and repairing client's production unit that will operate on a desired uptime. Levitt (1981) argues that these key performance indicators are the only explicit information available to the customer that makes them perceive the value of the service contract.

Outcomes are the results of outputs in a large scale. For manufacture companies main outcome of service contracts are operating on a desired productivity. These outcomes are the main impacts of service contracts and can be measured by the customer. Each company has its own way of calculating respective indicators that paint the picture of their desired needs and wants.

Credence attribute of a service contract could be realized by utilizing the input, output and outcome approach. According to Berry and Yadav (1996) services often possess credence attributes. This is the definition of the case where a customer of a service can not specifically relate the value of the service it experienced. Hinterhuber (2008) emphasizes that perception

of the value toward an intangible product need to be communicated and clarified if value-based pricing strategy want to be adopted. Input, output and outcome approach that service providers use in the manufacturing industry allows the customer to understand the value of a service in a clarified way. Inputs shows how the service provider will create value. Outputs are calculated by customers themselves and are communicated with the service provider so that the generated value can be materialized and understood. As an example operating a production unit on a desired uptime is a materialized key performance index. Each customer can define their own indicators to realize the value of a service contract. Defining outcomes allows both service provider and customer to see the general impact of the service contract. Service provider could use the outcome to perceive customer's willingness to pay and customers can use it see if the service fulfills their needs.

Interviewed senior consultant at Navetti AB argues that service provider and the client need to communicate while preparing the input, output and outcome of a service contract. Levitt (1981) points out that perceived value of a service is a communicated effort rather than a calculated one. Communications between provider and customer allows this approach to be perfected over time. Customers could use this approach to define their wants and needs from a service and providers could justify its customer's willingness to pay. This allows the utilization of a value-based pricing strategy for a service provider as the price of the service will be based upon the created value of the said service contract. According to vice president of Navetti Consult TM (2017) calculating the cost and looking to the average market price are crucial prerequisites of a value-based pricing approach. If the price deducted from the input output and outcome approach is less than the service provider's cost of production for that service, then it becomes unfeasible. Similar to this situation setting a price tag for a service that is below the average market price, it is not desired by the provider. In a clear and concise manner, input, output and outcome approach can be used to realize the obscure credence attribute of a service contract. This allows the utilization of a value-based pricing strategy. However, companies often uses cost-based and competition-based pricing strategies as safety belts that protects them from decreasing their profitability by utilizing a value-based pricing strategy.

6.1.2 Realization of a Service Contract's Value with Service Level Agreements

In this section of the paper, realization of a service contract's value with a service level agreement will be present, main attributes of a service level agreement will be discussed. Finally analysis of how service level agreements allow both manufacturers and service providers to understand the value of a service will be interpreted.

In our contemporary world businesses that operate in manufacturing industry have a tendency to sign service level agreements with their service providers. These contracts creates the foundation for a service by clarifying its limitations, main areas of improvement, penalties so and so forth. According to Cusumano et al. (2015) a service provider's first priority should be proposing said services value to its respectable customer. This will allow both parties to agree on the limitations and expectations of the service. This creates a healthier environment to predict a service contracts value (Hinterhuber, 2008).

Service level agreements in the manufacturing industry could be defined as *an official commitment between a service provider and its client that reflects the required quality,*

availability and responsibility of a service. According to the SLA, when the service provider fails to achieve one of the agreed propositions above, they get penalized according to the sum that have been agreed by both the customer and the provider. Due to this reason SLA's materializes what customer expects from a service contract. It could be argued to be used as an indicator of the perceived value of a service to utilize a value-based pricing approach. SLA's are the answers of one of the sub research question of this study "*What is the perceived value from manufacturer perspective toward a service contract?*". As manufacturers shows their expectancies of value to the SLA before the service contract starts.

Analyzing the primary data from various interviewees that have experience about service contracts and pricing shows that a service level agreement is the proposition of a service contract that includes all relevant key performance indicators that customers and service providers agreed upon. These key performance indicators are the main foundations of a service contract and they act as boundaries that allow provider to create enough value to its customer (Vice President of Navetti Consult TM, 2017). Service level agreements in the manufacture industry act as the main material for linking the customer's perception of value to the price tag of a service. According to Harmon et al. (2005) value-based pricing approach can only be utilized by understanding customer's perceived value toward the service. Interviews with Navetti AB's consultants show that SLA's can act like tools for utilizing a value-based pricing approach for a service.

Service contract SLA's in the manufacture industry include some KPI's that are common in the industry. From the customer's perspective, meantime between failures is an important KPI to be included in a SLA, meantime between failures is the calculated indicator of the time frame when a production unit starts operating and fails. The longer this KPI, the better for the customer concerning a service contract. This KPI is used as a penalty indicator as customers do not want failure rates for a production unit to be high. This indicator is crucial for realizing a service contract's value. Service providers that offer a longer meantime between failures could be argued to create more value for their customers. In a clear and concise manner, meantime between failures could be regarded as a factor to predict a service contracts price. Safety of a service is another KPI that is included in a service contract SLA, it is the proposition from the provider of how safe will the service be. Workplace accidents are common in the manufacture industry. These could damage manufacturers severely through lawsuits and insurance problems. Thus, manufacturers wants to be their maintenance and repairing procedures to be as safe as possible. Having an experienced maintenance staff, using technologically updated and legit tools and operating without unnecessary haste are the main areas of consideration for a service provider to reach a desired safety threshold to satisfy their customers. Safety of a service contract could be regarded as another factor that predicts a service contract's price. Response time of a service is yet another part of a SLA. In the manufacturing industry production unit repairs need to be as quick as possible. As they are considered to be expensive assets, the more time pass while they are not operating, the more value will be lost. Customers for a service contract have a tendency to choose a service provider with a lower response time for this reason. The service provider and the customer agree on a response time in the SLA, when the provider fails to achieve the promised level of that KPI, they get penalized according to the sum that is specified in the SLA. This shows how an SLA represents a customer's perceived value toward a service contract. For this reason, response time is yet another important factor for predicting a service contracts price from the perspective of a manufacturer.

In order to utilize a value-based pricing strategy for a service contract, its value from the perspective of the customer need to be materialized and studied. SLA's with respect to the input, output and outcome approach could be argued to be the tool that materializes a service contracts value in the manufacturing industry. It included all necessary KPIs that customer want to maximize, these KPIs act as the value drivers of a service contract. Meantime between failures, safety margins and response times are common KPIs that could be observed in a service contract. These KPIs form the main factors that predicts a service contracts price while SLA's in general act as the tools for understanding the perceived value toward a service contract from the manufacturers perspective.

6.2 Utilizing a value-based pricing strategy for a service contract

In this section of the paper, analysis regarding how value-based pricing could be utilized for a service contract will be presented. Primary data that have been collected from interviewees at Navetti have been analyzed according to the secondary data that have been collected from a thorough literature review (Adams and Schvaneveldt, 1991).

In the section of *value-based pricing strategy*, analysis of the term will be presented. Interview results were analyzed according to the present literature regarding value-based approach.

In the section of *pricing process of a service contract*, analysis of how the case study collaborator prices a service contract will be presented.

6.2.1 Value-based Pricing Strategy

According to Porter (1985) companies need to have a valid competitive advantage, for this reason they need a well formulated strategy. Project managers at Navetti AB argue that there is not an explicit strategy when it comes to pricing. However several consultant experts and analysts emphasize they utilized a value-based strategy in a long run while others claim that it all comes down to the company owners' and CEO's approach and decision. In a clear and concise manner it could be said that Navetti AB utilizes a value-based pricing strategy for both pricing its services and offers the utilization of this strategy to its customers.

According to interviewed project managers and CEO of Navetti AB, value-based pricing strategy can be utilized after analysis of a customer is complete. When analyzing a customer and its value proposition a price harmonization approach could be used (Figure 9). Price harmonization approach allows the interpretation of a service providers value proposition and its value creation processes (Cusumano et al., 2015). According to Hinterhuber (2008), value-based approach can be utilized after understanding the perceived value of the service. For this reason it could be argued that the price harmonization approach Navetti AB utilizes helps understanding the perceived value of a service. It is divided to two parts, research and knowledge. Data and market researches are necessary to obtain explicit information about the service. Whereas, knowledge gathering part aims to gather tacit knowledge for the service and its respective industry. Both research and knowledge processes comes down to understanding the value of the product from its respective customer's perspective. After successfully grasping the realized value, pricing of a product could be made to be on par with its customers' realized wants and needs. The results of the interviews show that value-based

pricing strategy is actually combined with other pricing strategies to reach a final price tag for a good or a service. Project managers at Navetti AB claim that performing a value-based pricing strategy may be the most profitable method but its results are not always reliable. According to vice president of Navetti Consult TM (2017) cost-based and competitive based pricing strategies are also used when utilizing a value-based pricing strategy. Interviewees emphasize that although cost-based and competition-based strategies are not appropriate on their own, they act as safety belts for utilizing value-based pricing model securely. According to Skugge (2017) cost-based pricing is actually straightforward and has a weakness of potentially losing profit when customer's willingness to pay is higher than the resulted price tag. According to Nagle and Hogan (2006) competition-based pricing can be used as a research tool for calculating market average for a price but using this on its own has a weakness of losing profit.

Different reasons have been found from interviews regarding why cost-based and competition-based pricing strategies were used when utilizing a value-based pricing strategy. First and foremost, cost-based pricing strategy focuses on the cost of the product. The resulted price tag ensures that it is above the cost of production with a safe profitability margin (Courcoubetis and Weber, 2003). According to vice president of Navetti Consult TM (2017) value-based pricing could actually lead to a price tag where it is below the cost of production, this makes it unacceptable for the manufacturer or service provider to use the price tag gathered from value-based approach. When this happens, companies rely on the cost of production for their products and add a profitability margin that is deducted from a value-based approach. Same issue happens when the resulted price tag from value-based pricing strategy is lower than the average market price for a good or a service. Due to this reason average market prices and cost of production are required prerequisites when utilizing a value-based pricing strategy. It could be argued that studying perceived value toward a service need to be done while keeping the cost of production and average market price in mind. This could result in a healthier price tag for a service.

Hinterhuber (2008) argues that understanding the perceived value of a service is a communicated effort rather than a calculated one. Interviewees at Navetti AB acknowledge this reasoning and add that there are various methods that could be used to communicate with the customer to understand the true value of the service. Value equivalence and value surveys helps service providers to understand their segment in the market. According to vice president of Navetti Consult TM (2017) service providers need to study their segments in order to realize their value creation potential towards their customers. In terms of service contracts, manufacturers in the industry care about risk reduction, guaranteed availability and planning security. These factors could be determined by communicating with potential customers and conducting value surveys. After this process it is imperative for the service provider to understand how well they can propose to perform these factors. As an example when a service provider in a given market offers the most risk reduction, best availability and security to its customers have a tendency to create more value for the manufacturers with high expectancies. This allows service providers to get more value from those customers while they can offer different packages to other segments. As Levitt (1981) argues, customization is the most important aspect for a value-based pricing approach.

6.2.2 Pricing Process of a Service Contract

Pricing process of a service contract is a trivial event. In the manufacturing industry service providers often fail to justify their customers' perceived value toward their offerings. According to the project managers at Navetti AB, providers of maintenance and repair services need to follow certain phases before setting the correct pricing tag for their products. Vice president of Navetti Consult TM (2017) argues that utilizing a value-based pricing strategy for service contracts start with the realization of the real value of the service from customers' perspective. As previously discussed price of a service contract changes according to conditions of certain KPIs. According to the findings from the interviews at Navetti AB (section 5.2.2) these said KPIs could be service provider focused and customer focused. Pricing a service contract with a value-based mindset could be achieved by understanding the perceived value from the customer (Hinterhuber, 2008) but also considering service providers' costs, average market value and other factors (Vice President of Navetti Consult TM, 2017).

From the service providers perspective, KPIs that effect a service contract's price were called internally focused KPIs. These include margin over time, sales volume, opportunity and the price level. Margin over time refers to the profitability of a contract, according to the interviews the service provider studies the time of the contract and how many services they could provide within that time frame, deducting the amount of profit gained to the time of the contract results in the margin over time. Sales volume is another internally focused KPI that is the total amount of customers that could be targeted by pricing the service contract with the amount that is desired. Interviews at Navetti AB with project managers showed that service providers in the manufacturing industry uses price of a contract to increase their sales, this could be linked to Özer and Phillips (2012) snowballing sales theory that was discussed in section 2.3.1, where pricing a service so that it will lure customers with the price tag itself. Opportunity or also known as hit rate is another internally focused KPI that affect the price of a service contract. Hit rate is the number of attempted sales divided by actual sales. Service providers want to position their service contracts so that their salespeople will have an easier time selling services to targeted customers. Morris and Calantone (1990) argues that changing the price of a product according to the market price yields different results in sales, this could be applied to the hit rate KPI that was deducted from the interviews. Setting the price of a contract according to the average market price could increase the hit rate of a service contract. Final internally focused KPI is the price level of a contract, as discussed previously in section 5.1.1, price level could be calculated by studying cost of production and average market price of a service. Vice president of Navetti Consult TM (2017) argues that service providers want to position their products according to their costs and the average of competitor prices on the market, even that their main intention is to link the price tag closest to the perceived value from the customer, ending price can not be lower than the cost or average market price. Hinterhuber (2008) emphasizes on different pricing strategies and the importance of adopting one of them according to a situation. However, in manufacturing industry interviews with experts showed that different pricing strategies could be utilized at once to reach the best price tag possible.

Customer focused KPIs that affect a service contract's price were meantime between failures, improved output (according to input, output and outcome approach), safety, overall satisfaction, response times, improved uptime, expense predictability and overall peace of

mind of the customer. These KPIs could be in the service level agreement that need to be prepared by negotiating with the service provider. Customer focused KPIs help service providers to determine the perceived value of the customer toward their products. These performance indicators could be calculable like response times or mean time between failures or uncountable like overall satisfaction or peace of mind (Courcoubetis and Weber, 2003). The ability of serving the customer centric KPIs allows an increased price for a service contract. Perception of customer's value increases when they see the ability of a service provider to create enough value for them (Cusumano et al., 2015).

Overall price of a service contract could be determined by the ability of serving customer focused KPIs while considering the internally focused KPIs. Service providers need to communicate with their individual customers to understand their expected value for the service. But setting a price tag for a service contract may result to increased sales or hit rates that will increase the profitability of the service provider. As a result, a service provider need to consider their customers' need with respect to their ability to sell for more customers by taking both internal and customer focused KPIs into consideration simultaneously.

7. Conclusions, implications and future research

In this chapter conclusions that can be taken from the research will be presented. Implications about the industry and the literature will be given. Finally, suggestions for future research will be provided.

7.1 Research Conclusion

Purpose of this thesis was to study how to utilize a value-based pricing strategy for a service contract. Research question of "*How to utilize a value-based pricing strategy in service contracts?*" was formulated. In order to answer this question and fill the stated gap in the literature three subset questions were prepared. These questions were answered by preparing a descriptive case study at Navetti AB.

Sub Question 1: Which factors predicts service contract prices in manufacturing industry?

One of the conclusions of this research was that there are certain KPIs that affect service contract prices in manufacturing industry. These KPIs could be divided to internally focused and customer focused. Analyzing the findings from interviews with respect to the present literature showed that in order to determine the price of a service contract, following conclusions may be drawn:

- Internally focused KPIs such as margin over time, sales volume, opportunity (hit rate) and price level need to be studied prior to confronting individual customers. These KPIs could be determined by utilizing a cost-based and competition-based pricing strategy tactics as service providers want to position their contract prices so that it will increase their sales and overall profitability.
- Customer focused KPIs such as meantime between failures, improved output (according to input, output and outcome approach), safety, overall satisfaction, response times, improved uptime, expense predictability and overall peace of mind of the customer need to be determined by negotiating with each individual customer. Service providers could determine the perceived value of their customers toward their

service contracts with these KPIs. These were the core of utilizing a value-based pricing strategy for a service contract.

- Price of a service contract could be the offspring of cost-based, competition-based and value-based pricing strategies. Within manufacturing industry value-based pricing strategy may yield a price tag for a service contract that is higher than the cost of production of the average market price. Service providers do not allow these kind of prices to be utilized instead they change the price tag that they deducted from a value-based strategy according to their costs and the competition.

Sub Question 2: What is the perceived value from manufacturer perspective toward a service contract?

Linking the perception of value from the customer to a service contract was the key action for utilizing a value-based pricing strategy. One of the main conclusion was that manufacturers have certain wants and needs from a service contract, these wants could be countable or uncountable. Manufacturers (customers) also want to set the boundaries of the service contract with a service level agreement, in this agreement they solidify their needs and determine certain rulesets that may result with a penalty fee that need to be paid by the service provider. Additional conclusions that could be drawn from the study were the following:

- Perceived value from the manufacturers perspective toward a service contract could be understood by looking to the benefits of the manufacturers. These benefits determine the value of a contract. Risk reduction, guaranteed availability and how secure the service were the main value drivers of manufacturers.
- Reasons of why manufacturers want a service contract and not deal with their maintenance and repairs inhouse shows the perception of their value as well. Manufacturers want to reduce the hassle of these operations by purchasing a service contract, they want to improve their uptime by letting professionals deal with their production machines, they want an overall peace of mind. These could be argued to be manufacturer's reasons of choosing to buy service contracts.
- Manufacturer's expect certain levels of quality from an average service contract, these expectations also determine their perception of value toward a service contract. First and foremost they do not want to make individual requests for their repairs, they want to see preventive actions from the service contract provider. Manufacturers also want to predict the expenses of the contract dynamically. Finally they want the service contract providers to be responsible for the maintenance and repair services.
- Manufacturers reflect their value drivers to service level agreements that they negotiate with service providers. Most common service agreement KPIs in the manufacturing industry were response times, safety level of the service, meantime between failures and updated use of technology. Manufacturers want service providers to meet their expectations with these KPIs, if they do not then penalty fees will occur. These service level agreement KPIs also helped authors to understand the perceived value of manufacturers toward service contracts.

Sub Question 3: How Navetti approaches value-based pricing strategy for their clients?

Understanding how the case study collaborator utilize a value-based pricing strategy for their clients was crucial for the study, it helped authors to determine the reliability and validity levels of the study as the primary data were the interviewees of this company. It has been concluded that Navetti AB utilizes certain approaches and different pricing strategies all at

once to optimize the prices for their clients. Following results were drawn by monitoring their activities throughout the study:

- Navetti AB uses a logical business structure to gather as much data as possible from their clients before making any decisions. These data could be achieved by communicating with their customers or analyzing customer's' explicit data (Figure 8).
- Navetti AB extracts price drivers from their customers so that they could allow them to maximize these drivers for their customers.
- They use an input, output and outcome approach to analyze customer's' perception of value and the value drivers of service providers.
- They utilize a price harmonization approach to collect and analyze customer data (Figure 9).
- According to interviewees at Navetti AB, communicating with each individual customer is the core of utilizing a value-based pricing strategy. Each customer may have a different value driver thus different value perception toward service providers' contracts so more communications with customers the better.

Answering all three subset question allowed authors of this study to reach a framework for utilizing a value-based pricing strategy in service contracts. In order to answer the main research question of "*How to utilize a value-based pricing strategy in service contracts?*" all of the findings for the sub questions were grouped and analyzed respectively. It has been concluded that utilizing a value-based pricing for a service contract start with the *realization of credence attribute in these contracts* (Berry and Yadav, 1996). This could be done by negotiating with the customer. Service providers could follow certain approaches to interact with their customers to realize the credence attribute of their services from the perspective of manufacturers. These approaches include input, output and outcome model and service level agreements. Both of these approaches help service providers to gather information from their customers to allow them to spot the perception of value from their customers toward their services.

Realization of the credence attribute in a service contract yields certain value drivers from customers, these drivers are all related to maintenance and repair services such as meantime between failures, improved output etc. *Obtaining these value drivers with either input, output and outcome approach or service level agreement is the next step to utilize a value-based strategy.* Service providers need to spot the most important value drivers to link customer's' perceived value to their service contracts. These value driver KPIs need to be assessed with the customer. *Service providers' next step to utilize a value-based strategy for their service contracts should be to quantify and analyze the most important value drivers from customers (manufacturers) perspective.* Studying and understanding what level of response time a customer wants or what should be the minimum meantime between failure is crucial to stop an appropriate price tag for a service, when customer's' expectation is high from these value drivers, their willingness to pay may be high as well. In order to link the perceived value of a customer to the service contract, these KPIs need to be analyzed thoroughly.

Designing a service level agreement is an important milestone for utilizing a value-based strategy for a service contract. Service level agreements shows the materialized expectations of each individual customer, according to the case study, it has been concluded that customers in the manufacturing industry have a tendency to choose the most important value drivers for a service contract to be included in a service level agreement. The most aggressive penalty fees are generally chosen for these value drivers as well. In a clear and concise manner, the

next step for the value-based strategy is the *designing of the service level agreement with the customer*.

According to the interviews and the case study, it has been concluded that after designing the final service level agreement, *service providers need to start evaluating their internal KPIs before setting the final price tag*. Vice president of Navetti Consult TM (2017) emphasized that value-based pricing is not all about the customer. In the end the price tag will determine salespeople hit rate, overall profitability of the service provider and other internal KPIs, these all need to be taken into consideration after analyzing each individual customer. It is imperative for service providers to agree on a price tag that reflects their expected sales, hit rates and other internal KPIs that were discussed when answering sub question 1.

The final step to utilize a value-based strategy in a service contract is to calculate and communicate for the price of a service contract. According to present literature, value-based pricing was to link the perceived value of a customer to the price tag of a product. However, according to the findings of this research, it has been concluded that both cost-based and competition-based pricing strategies were used when utilizing a value-based strategy. Following each of the five steps that were discussed in this research may yield to a price tag that is either lower than the cost of production or the average market price for that service. So the final step is to *calculate the cost of production and the average market prices for a service contract and communicate for a price tag that takes customer's perceived value, internal KPIs of the service provider, cost and competition levels of the price*.

In order to visualize the six step model of utilization of a value-based pricing strategy for a service contract, Figure 10 was presented below.



Figure 10: How to utilize a value-based strategy for a service contract.

7.2 Implications

In this section implications regarding the industry and the research will be presented.

7.2.1 Industry Implications

Main focus of this study was to study value-based pricing strategies for service contracts in manufacturing industry. With an inductive approach in mind, possible models or theories wanted to be found by analyzing the customers and service providers in manufacturing industry. The study has been carried out at Navetti AB, a Swedish consulting company that provides pricing consultancy services for clients that are in manufacturing industry.

Utilization of a value-based pricing strategy for a service contract is a complex task due to the manufacturer expectations and industries KPI heavy environment. Industry implications of this study could be summarized as follows:

- Manufacturers value previous experience and output improving results in the industry.
- Companies state their expectations on service level agreements for service contracts and wants a general peace of mind for maintaining and repairing their production units.

- Perceived value of manufacturers toward service contracts depends on certain KPIs that could be countable or uncountable.
- Spare parts availability, updated use of technology and overall security level of a service are desired and heavily valued.
- Value-based strategy could be utilized in parallel with cost-based and competition-based strategies. Service providers in manufacturing industry do not want to price their service contracts below their cost of production or average market prices.

7.2.2 Research Implications

There is a plethora of literature regarding value-based pricing techniques and strategies, however it could be argued that they all targeted to tangible products. There has been a gap in the literature that did not study the ways of utilizing a value-based pricing strategy for services that are high in credence attributes (Berry and Yadav, 1996). Previous research analyzed pricing strategies for products with experience and search attributes and gave appropriate ways of utilizing a value-based pricing strategy. The results of this study contributed to the existing research of pricing management concepts that are in industrial management with an additional knowledge of how value-based pricing strategies could be utilized in service contracts in manufacturing industry.

7.3 Future Studies

This study has been conducted at Navetti AB, a consultancy company that serves to clients mainly in manufacturing industry. Primary data has been collected in forms of semi-structured interviews from this company. Analyzed data consists of six different individuals who are experts in pricing strategies of manufacturing industry goods and services. Results from this collaborated effort was a six step model that is applicable for service contracts that are in manufacturing industry.

During the data collection and analysis process, researchers of this study found that service contracts differ from other products that are high in credence attributes, manufacturing industry customers value different KPIs and features that may not be applicable in other industries.

In addition there is a lack of knowledge about how to utilize a value-based pricing strategy when the perceived value for a product is obscure and not explicit. This topic could be of interest for future researches.

Appendices

Appendix 1: Interviewees

Position at Navetti AB	Interviewee Count
CEO	1
Project Manager	2
Vice President of Services	1
Senior Consultant	1
Pricing Analyst	1

Appendix 2: Interview Guideline

Interview Guide

Name - Position - Date

Short Introduction

Studying Entrepreneurship & Innovation Management at KTH

Master thesis students

Writing about value-based pricing for service contracts

Goal with this interview is to understand how customers perceive value towards service contracts and which factors predicts service contract prices

Areas of Investigation

Pricing of service contracts

Utilizing value-based pricing for an intangible product

Understanding how Navetti AB utilizes value-based pricing for their customers

Please present yourself

Industry and Local Market

Which industry and market does Navetti AB operates on?

Which areas in pricing does Navetti AB gives consultancy services?

What is Navetti AB's pricing approach and project implementation methodology?

Customers

What are the main characteristics of Navetti AB's clients?

How Navetti AB segments its customer base?

What is the perceived value from manufacturer perspective toward a service contract?

Service Contract

How Navetti calculates the perceived value for their clients services? Is perceived value a communicated effort rather than a calculated one?

How important is the cost of production (overall cost) when pricing a service contract?

How important is the average market price (competition-based pricing) for a service contract?

How do you collect and interpret data and other quantitative methods when you are utilizing value-based pricing strategy?

How do you use installed base information in value-based pricing strategy regarding a service contract?

Last Questions

What are the main differences in your opinion of pricing a service rather than a product?

Do you agree that utilizing value-based pricing strategy increases the price of the product above market average?

What are the main advantages and disadvantages of communicating with your customers when they are using your services?

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Zomerdijk, L. G., & de Vries, J. (2007). Structuring front office and back office work in service delivery systems: an empirical study of three design decisions. *International Journal of Operations & Production Management*, 27(1), 108-131.

Lectures

Skugge, Göran. "Price Strategy" PriceGain. KTH, Stockholm. 2017-02-14. Lecture

Interviews

CEO, Navetti AB, Interviewed 2017-05-01

Vice President, Navetti Consult TM, Interviewed 2017-04-30

Senior Consultant, Navetti Consult TM, Interviewed 2017-04-15

Project Manager, Navetti Consult TM, Interviewed 2017-03-12

Project Manager, Navetti Consult TM, Interviewed 2017-03-08

Pricing Analyst, Navetti Consult TM, Interviewed 2017-03-04

