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INTERNATIONAL PRICING STRATEGY

A case study of a product commercialization project in the oil and gas industry

A Thesis

By

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Abstract

The purpose of this thesis was to investigate if an optimal pricing strategy could be defined for the global release of a new software in the oil and gas industry, and how the degree of competition would affect the choice of that strategy. To do this, the author chose to conduct in-depth interviews and perform an extensive literature review.

The findings from these activities were used as a basis to perform a case study, utilizing two renowned strategic analysis tools; Porter's Five Forces and a modified version of the VRIO model. The results revealed that in order for the Company to enable itself to utilize a pricing strategy optimally, it needs to invest in a dedicated pricing position which will analyze, implement, monitor and drive pricing strategies. The person holding this position needs to be educated on the subject and have pricing experience, preferably of international character.

The analysis also revealed that the Company did not have extensive knowledge about new product pricing strategy theory and did not invest sufficiently into utilizing best practice. The study uncovered two resources, customer incumbency and a time savings algorithm, that yielded temporary competitive advantage and two competitive forces, rivalry and threat of new entrants, that differentiated the international market from the Gulf of Mexico market.

The conclusion was that a generic global pricing strategy is not optimal, but needs to be specifically tailored to the unique environment in which the product is released and sold. That environment consists of the Company that is developing and commercializing the product, the competitors and the potential customers.

Finally, the degree of competition was found to be the most influencing factor for choosing a price strategy for this product.

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1 Introduction

The focus on optimizing the process of pressure testing blowout preventers (BOPs) for deep-water rigs utilizing synthetic based mud (SBM) systems has been around since 2002 and the results of these tests rely on the pressure, volume and temperature of the test-fluid (Franklin, Vargo Jr., Sathuvalli, & Payne, 2004). Deep water rigs have been the main target because they usually operate with subsea BOPs when conducting exploration drilling. The distance from the pumps to the BOP is then of such magnitude, that the volume of the test fluid impacts the test accuracy and time to decide if it passed or failed. The need for an optimized BOP pressure testing method was partly coming from the need to improve accuracy and reliability in relation to health, safety and environmental aspects (HSE), but the latest years, the focus has shifted more towards time savings.

This chapter will introduce the background and factors leading up to the decision to develop the digital BOP pressure testing software (DBOP PTS), and the subsequent need to optimize the pricing strategy for this product.

1.1 Pricing strategy

In 2008 the great financial crisis forced business-to-business (B2B) companies to re-evaluate their competitiveness and their cost models and the term “economic buyer” emerged. These companies started to put a lot of emphasis on their procurement group’s capabilities. At the same time, a strong globalization emerged, meaning a global increase in availability of merchandize and services. Together, these effects increased the transparency of market prices and sellers had to become smarter in order to stay competitive (Hinterhuber & Liozu, 2013).

When launching a new product in an environment where prices are transparent and competition is higher than ever before, investigating how a price strategy can help optimize the competitiveness and profitability of a company becomes very interesting.

Several myths about pricing exists, e.g. premium prices and a high market share are incompatible or that customers are for the most part price sensitive, however they have all been proven wrong by Hinterhuber (2004), and therefore investing in developing a solid pricing strategy makes financial sense.

Close to all research papers read while working on this thesis begins with stating the limited amounts of research that has been published on pricing strategy and especially in a B2B and international context (Lilien, 2016). To a further extent, even less research has been presented on ways to gain competitive advantages and maximizing the profit of your product through innovative pricing strategies (Hinterhuber & Liozu, 2014). The same amount of papers also concludes that pricing your product right is equally as important as having the right product.

The renowned investor Warren Buffett once said, “The single most important decision in evaluating a business is pricing power. If you’ve got the power to raise prices without losing business to a competitor, you’ve got a very good business. And if you have to have a prayer session before raising the price by 10%, then you’ve got a terrible business” (Hinterhuber & Liozu, 2012). According to Hinterhuber (2013) an increase in price yields far more in operating profits than any of the other tools of operational management because on average, a price increase of 5% leads to a 22% improvement in operating profits, see Figure 1.

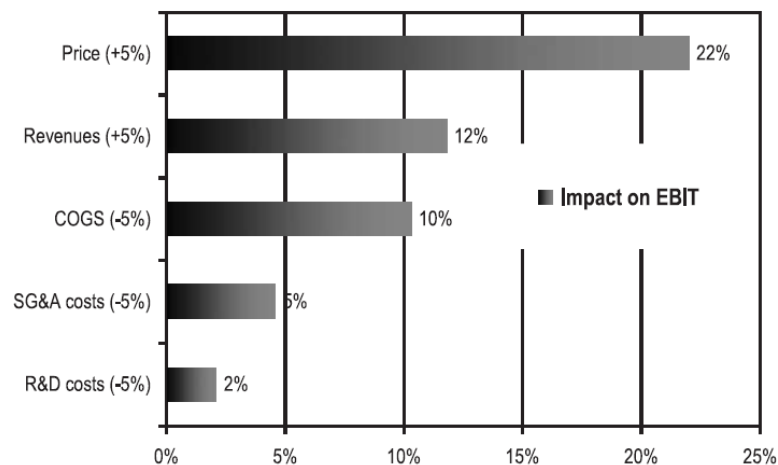


Figure 1: Pricing and its impact on profitability (Hinterhuber, 2004)

The problem with studying economics is that it is not as scientific as economists would have us to believe. The reason being that it is not possible to conduct repeated experiments in a controlled environment and analyze the results until a consistent theory emerges as in say, physics or chemistry (Fletcher & Russel-Jones, 1997).

Forman & Hunt (2005) writes about the effect different factors have on pricing strategy decisions and points out the importance and complexity in the decisions, especially when the company is operating internationally. “Little is known about how managers attempt to cope with

such complexity in the formulation of pricing strategy. This gap in knowledge is not inconsequential. Failure to understand how environmental forces affect pricing decisions exposes decision-makers and their organizations to unnecessary levels risk” (Forman & Hunt, 2005).

Most companies focus mainly on product innovation to differentiate themselves from the competition, but studies show that company value and advantage towards competition can be increased by being innovative with pricing alone. A combination of both could yield greater results (Hinterhuber & Liozu, 2014).

1.2 The oil and gas industry

The environment that oil and gas service companies operate in today is challenging as service demand has plummeted since the peak in 2014. Due to the potential future of a continued challenging market for oil and gas service providers, having a solid pricing strategy will be important. One of the main factors contributing to the current market conditions is the drop in the oil price. The oil price has been discussed thoroughly by several experts over the last years as it dropped from around \$110 to around \$50 the last half of 2014, as shown in Figure 2. Several analysts and experts have claimed that it was to rise throughout 2016, in which they were mistaken. The oil price is now expected to fluctuate around \$50 for a while and some even indicate that it may take two years before it will rise again and the blame is put on the American shale oil boom (Baumeister, 2016).

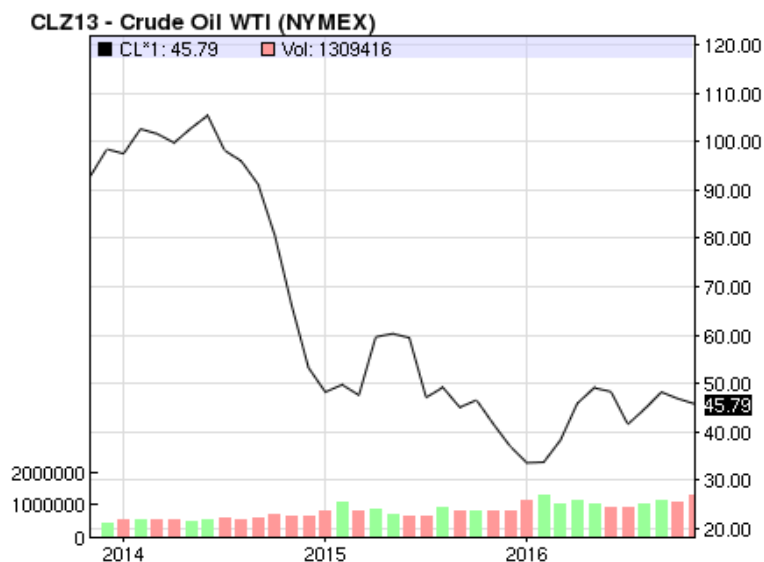


Figure 2: Oil price development the last three years (Nasdaq, 2016)

The low oil price has led to less investments in the oil and gas industry, one example is the estimates for the 2017 investments in Norway, where it is estimated to drop 18.6% in 2017 compared to 2016 (Investments in oil and gas, 2016). The global picture is no different, where investments has dropped 25% in 2015 and is estimated to drop 24% in 2016 (World Energy Investment, 2016), and in total these market conditions are forcing all companies operating in the oil and gas industry to become more efficient.

1.3 The Company

Halliburton's cementing department, hereafter called Company, is a department in Halliburton which is a large service company in the oil and gas industry. It delivers a large spectrum of goods and services to well operators all over the world. One of these services is pressure testing of the BOP on oil rigs which verifies the integrity of the BOP. This service traditionally utilizes an analogue gauge with a pin that records the pressure delivered by the cement unit on a circular paper chart, and has been a commodity for many years. However, recently small companies have emerged and grown rapidly, offering different versions of digital software's that can reduce the time spent pressure testing and thereby reducing overall operation time and cost for the operators. Customers of the Company soon started requesting competition for this service and wondered why the Company couldn't provide it due to the fact that it was already present on the rig, delivering other services. As a reaction to this request, the Company started developing its own DBOP PTS. However, it experienced that pricing the product was challenging and therefore asked the author to investigate if an optimal pricing strategy could be created.

1.4 Problem statement

Based on the interesting current status of pricing strategy research, market status and the request from the Company, the author has formulated the following problem statements:

1. Evaluate alternative pricing strategies, and if possible, determine the optimal pricing strategy for a DBOP PTS in the international oil and gas industry.
2. Evaluate to what degree competition affect the pricing strategy of the software.

1.5 Delimitation

The information in this thesis is based upon public information, published peer reviewed research papers, observations through project participation and interviews of key personnel within the Company. The author does not have access to pricing strategy information from other corporations or companies which may or may not have developed their strategies further than what has been presented in the literature review, and interviews of competitors and customers has not been performed.

The literature review uncovered several topics which were evaluated to be a part of the study, but through the analysis of the available data, the author found some of these to be less relevant compared to the rest. A total of 13 topics were excluded from this study; an overview of all topics evaluated including the 13 excluded ones are presented in “Appendix B: Pricing strategy topic overview”.

1.6 Structure of the thesis

31 papers have been read and evaluated with regards to relevance for this thesis. The author decided that 7 out of the 31 were the most relevant and they have forged the basis on which the strategic analysis and interviews have been built upon. Additionally, when performing the literature review, several citations were collected and utilized from secondary sources, in this context meaning sources found through the use of the 7 main ones. Also, 6 books were evaluated as references, but only 2 were chosen.

The thesis starts with a literature review of pricing strategy and the selected strategic analysis tools. The methodology then introduces the methods chosen to analyze the theory and case specifics in order to present findings and a conclusion. Finally, recommendations for further research are presented.

In an attempt to work structured towards answering the problem statements a project plan was created. The work method that was chosen included examining the historical perspective and current status of pricing strategy theory to build an accurate basis of knowledge, then factors and situations influencing the development of a pricing strategy was investigated. Which methods that are available for a company when working towards choosing a strategy was also examined and finally, some existing frameworks for setting prices were studied. The summary of the topics

studied from the literature review can be found in "Appendix B: Pricing strategy topic overview".

Kienzler and Kowalkowski (2014) has summarized relevant research papers on B2B pricing strategies from 1994-2013 and categorized their findings under four distinct headlines, determinants, methods, frameworks and situations. The literature review on pricing strategy is structured the same way.

1.7 Definition of terms

B2B: Business-to-business. A company that sells its services and goods to other companies, where the product is a part of a value chain, operates in a B2B market (Hinterhuber & Liozu, 2013).

B2C: Business-to-consumer. A company that sells its services and goods to individual consumers, where the product is depleted by the customer, operates in a B2C market (Hinterhuber & Liozu, 2013).

Blow-out: An event caused by a sudden spike in wellbore pressure, where hydrocarbons flows rapidly from the wellbore towards the rig.

Blow-out preventer: A large valve covering the top of the well, normally placed either on seabed or on the rig deck, as a safety measure towards sudden pressure spikes caused by drilling into formations that rapidly release hydrocarbons.

Break-even: The point at which a company has exactly zero in profits and is often used in a project or investment where the company measures how long it takes before it gets its full investment back and starts making a profit.

Buyers: In this thesis, the buyers are either oil and gas operators or rig companies.

Commoditize: “Commoditize refers to a process in which goods or services become relatively indistinguishable from competing offerings over time” (Investopedia LLC, 2016).

Customer Value: A customer’s willingness to pay is equal to what the customer perceives as a products value (Peteraf & Barney, 2003).

Determinants: Internal and external conditions that determine managers’ choices of pricing strategies. (Noble & Gruca, 1999)

Profit margin: The percentage of profits compared to the revenue, found by dividing the net profits by the revenue.

Mark-up: Most often used when discussing cost-plus pricing. It is the difference between the cost of goods sold and the price of the same goods.

New product: A product that the company has not sold before, but plans to start to selling.

Operator: In the Oil and Gas industry, operator means the individual, company, trust, or foundation responsible for the exploration, development, and production of an oil or gas well or lease. Generally, it is the oil company by whom the drilling contractor is engaged. (USLegal Inc., 2001-2016).

Optimal pricing strategy: The pricing strategy that yields the highest profits over the life time of the product.

Perfect competition: Transparency of transactions, homogeneity of goods, many buyers and sellers, knowledge universally available and highly mobile resources.

Price ceiling: In this thesis, the price ceiling is defined as the maximum price a company can successfully implement for a product without significant change in volume sold.

Price elasticity: How much the sales volume changes in response to one percent change in price.

Price floor: How low the company can price a product before the product is sold at a loss.

Price sensitivity: How the customers purchasing behavior is affected by the price of a product (Investopedia LLC, 2016).

Price strategy: All means taken by a company related to the price level of one or several products to achieve the company’s objectives.

Price: The compensation provided by the buyer in order to obtain the seller's product.

Pricing objective: Profit maximization

Request for proposal (RFP): A document issued from a buying company stating the details of the merchandise or service it requires delivered.

Sellers: In this thesis, the sellers are defined as the companies providing a digital blow-out preventer pressure testing software to the market.

Total cost of ownership (TCO): "The sum of purchase price plus all expenses incurring during the productive lifecycle of a product, minus its salvage or resale price" (Anderson & Narus, 2004).

Utility: The means by which a pricing objective is to be achieved (Noble & Gruca, 1999).

Willingness to pay (WTP): "In traditional economic theory, a customer's willingness to pay (WTP) for a product can be interpreted as the money amount by which he or she subjectively evaluates the incremental utility added from consuming the product" (Park, MacLachlan, & Love, 2011).

2 Theory: Literature Review

This chapter presents the information collected through a thorough literature review. The aim for the literature review was to uncover the various options relevant to this case and to find which elements that needed consideration when forming an optimal pricing strategy. The literature review is structured by questions as illustrated in Figure 3.

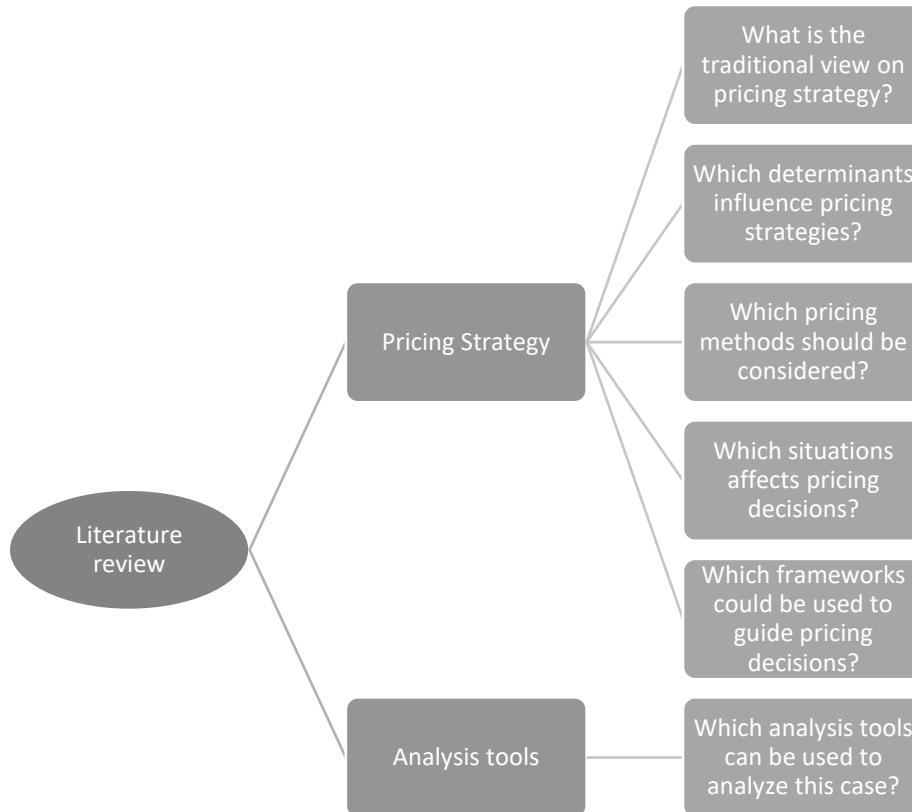


Figure 3: Literature review structure

2.1 Pricing strategy

To provide a fundament for analyzing the case in the context of pricing strategy theory, the author has chosen to present the information from the literature review from a historical and present perspective. In 2013, Hinterhuber and Liozu claimed that a company operating in a B2B context has three main choices when it comes to deciding on a pricing strategy: value based, market based or cost-plus, while in 2014, they present the term “pricing innovation”. This chapter is organized by questions where the first part contains traditional pricing strategy practices and the newest innovative research. The second part presents the analysis tools that have been utilized in the case study.

2.1.1 What is the traditional view on pricing strategy?

Understanding the traditional interpretation of pricing strategy theory is relevant because several researchers (Forman & Hunt, 2005; Jobber & Shipley, 2012; Hinterhuber & Liozu, 2014) have found that most companies operate with traditional pricing strategies. Investigating the implications for and comparing it to the Company's strategy is therefore interesting.

2.1.1.1 Human psychology and assumptions

Traditional price theory consists of the theory of supply and demand and whether a company is a price maker or price taker, i.e. which position it has in relation to its competitors, and the regulations in the market of which it operates. Studying price is not the same as studying fields of a more physical nature where you repeat an experiment in a set environment until a pattern appears. Human purchase patterns are irrational and trying to study it with economical modelling requires several assumptions. Making a pricing decision based on such assumptions sometimes require a breath-taking leap of faith. It is seen that economists are skilled in explaining why events happen, but poor at forecasting. Setting a price is only easy in a market that is approaching perfect competition, something which is unfortunately rarely the case (Fletcher & Russel-Jones, 1997).

A price is generated when two or more parties trade and since all humans does not react equally to different stimulus, studying price becomes partly a study of human psychology. Additionally, the assumptions made to formulate the theories of economics and pricing theory in particular is too restrictive to justify its application. The four assumptions which traditional economics theory is based on is (1) the business man has only one aim, to maximize his total profit, (2) his firm handles only products which are invariably produced and sold in the same proportions, (3) the businessman knows exactly what each level of output would cost him, and (4) he knows how much he could sell at each possible price. These assumptions are not sufficiently realistic for any theories built upon them to be of practical use (Gabor, 1988).

Perhaps the most interesting points on traditional views is the four fatal pricing traps presented by Hinterhuber and Liozu (2013). Trap number one is described as "if we lower our price, we will gain market share". The discussion here revolves around which focus the business should have, and shows that companies obsessed with market share can gain a challenge later with regaining healthy profits if lowering price is the only mean to gain that share. They warn

about the fact that reducing prices in a price-inelastic market would only trigger a price war, without any long-term market share growth.

The second trap is described as “at the end of the day, customers only buy on price”. This statement seems off at first glance, but can be true based on the current oil and gas market conditions. The point is still valid because any company’s true objective is profit maximization, not cost minimization. This is why market segmentation is so important; some customers are willing to pay more than others for the same type of product (Hinterhuber & Liozu, 2013).

Trap three is described as “we have to set our prices at the market price”. This statement seems true, but is challenged by the term “pricing power”. Rather than looking at the market as a creature that does its own thing, where innovations occur and prices erode through commoditization, a company can position itself to gain pricing power and instead look at the market as the sum of individual decisions. If a company has pricing power, it has the ability to define the market prices and even be able to price higher than others while still maintaining or even gaining market share. The only winner of a price war is the end customer, and none of the competitors gains anything from it. Pricing power is gained by selling products that differentiate themselves from competition in such a way that customers are willing to pay more, i.e. value-added products. A company therefore needs to have the capability to not only sell features and functions, but a story that tells the customer how the product affects their own strategy, differentiators and bottom line (Hinterhuber & Liozu, 2013).

The final and fourth trap described is “we should drop our price to win this deal”. This statement is challenged by an example of how international competitors from low-cost countries were able to make a company lower its price despite of having real pricing power. The buyer could afford the initial price offer, but the seller did not leverage its pricing power and therefore potentially left money on the table. The point made is that one shouldn’t blindly follow a price reduction from a competitor to win any deal because options does exist, and the option is to know your products value and effectively communicate it to your customers, through having trained sales people who is educated and experienced in negotiations. How to respond to a customer’s request for a lower price is a part of the pricing strategy and should be in place well before any deal is negotiated (Hinterhuber & Liozu, 2013).

2.1.1.2 Marketing strategy and profitability

Pricing is a part of a business' marketing strategy. A company operating in a competitive market needs to differentiate itself in order to be successful, and the way a company chooses to differentiate itself is by focusing on different parts of the marketing mix, which is divided into four key areas also known as the four P's: product, price, promotion and place. In general, businesses have too little focus on price in their marketing mix which is noteworthy since price is the only part which generates income, the other three generates cost. The most used pricing approach is cost-based pricing which is applied by calculating your costs and then adding your wanted profit on top of that, also known as the mark-up. In terms of a company's objective to maximize profits, the cost-based pricing approach has several flaws. If the price is set with this method, the company could be losing out on the real potential in the goods or services it provides. The value of the offer could be much higher for the customer than what the price is and in fact, the price could have been set higher without any influence on volume sold.

When measuring company profitability, the measurement best suited for this purpose is to look at the return on total company asset value, meaning all capital available to the company should be put to the most profitable use and this needs to be taken into consideration when creating a pricing strategy (Gabor, 1988).

2.1.1.3 Product life cycle

The traditional view on product life cycle (PLC) is that a product has a predetermined obsoleting date and that the price and profit will follow a steady increase until it flattens out for a period and then declines until it is no longer profitable and therefore taken off the market. The problem with the PLC hypothesis is that the life cycle of a product cannot be predicted in advance and it is impossible to fit all the world's products into this category. In reality the life cycle of different products varies vastly, and most importantly, they are affected by the company's marketing strategy. Therefore, one has to use this tool with caution and have a solid plan with an overview of the assumptions made and what they are built upon from the start of making a marketing strategy. (Bennet & Blythe, 2002)

2.1.2 Which determinants influence price strategies?

Price is influenced by several internal and external factors (Fletcher & Russel-Jones, 1997; Forman & Hunt, 2005). External forces are out of the company's control and normally act to force prices down but can act both ways in different scenarios. Internal forces are the ones that can be controlled and usually act to force prices up (Fletcher & Russel-Jones, 1997). Several studies have investigated which factors that influence managers, however, only a few articles elaborate on how managers are affected when you put all these factors together and how they ultimately chose a pricing strategy. When setting a pricing strategy, which determinants that affects the decision the most, differs from manager to manager, however it seems that either internal or external factors are the most influential, not a mixture or both (Forman & Hunt, 2005). Jobber & Shipley (2012) suggests that when operating in a market with competition, deciding whether to set a high or low price strategy is key.

Determinants for new products are: product age, product differentiation, significance of product change, costs, scale or experience curve effects, demand and factory capacity utilization (Noble & Gruca, 1999). Which determinants that affect the pricing strategy decisions is relatively easy to list, but when the company operates internationally, knowing which ones and how much they matter individually and in combination becomes challenging. "Rapid changes in information systems, proliferation of product lines and advances in technology are but few of the elements marketers are confronted with in developing pricing strategies. This level of difficulty is compounded further when managers attempt to develop pricing strategies in the international arena" (Forman & Hunt, 2005).

Due to the large variety of determinants presented in current literature, where several overlap each other, the author has attempted to categorize them, see Figure 4.

2.1.2.1 Internal

2.1.2.1.1 Management skill level and international experience

When operating in multiple countries, both rational and tacit knowledge about pricing together with international pricing experience is vital (Forman & Hunt, 2005). In addition, Foreman & Hunt (2005) discovered that managers rely more on internal factors than external ones, building up under the fact that most companies still use a cost-based approach to pricing

strategies. They also found that managers in companies with a strong international focus use more resources to understand external market forces which would impact their pricing strategies.

2.1.2.1.2 Economic status and objectives

The most obvious factor, one which exerts considerable influence on pricing decisions is cost. “Advantageous cost structures will translate directly to advantages in price levels as most companies use cost-plus pricing strategies” (Forman & Hunt, 2005). Cost consists of cost of goods and services bought and the cost generated by the organization itself (Fletcher & Russel-Jones, 1997). Cost serves as a price floor for most companies in the long term since selling your goods and/or services below internal costs in the long run, i.e. without profit, will eventually force the company into bankruptcy.

Profit targets set by the company can drive the prices up though not always giving the desired effect as volume sold can drop. Growth targets of the company can push up prices as cost increases due to increased cost of investments, but it can also lead to reduced prices in the short term in an effort to increase market share (Fletcher & Russel-Jones, 1997).

The company’s size impacts the objectives and the degree of internationalization is impacting the pricing structure decision. According to Forman and Hunt (2005), when a company operates internationally, it has the possibility to be flexible about where they use and receive their resources. They also state that “... a greater degree of internationalization allows subsidiaries across various countries to flexibly shift resources from one country to another in response to new information and/or changes in relative prices”.

2.1.2.1.3 Organizational structure

How the company is organized is affecting the pricing capabilities it has and an organization built for optimizing this capability yields potential competitive advantage. Having dedicated pricing functions within the organization with a partly centralized and decentralized responsibility, imbued with pricing knowledge and confidence, is presented as a main factor for successful pricing (Hinterhuber & Liozu, 2014).

2.1.2.2 External

2.1.2.2.1 Competition

According to Fletcher and Russel-Jones (1997) competitors will have a higher tendency to appear in your market if you operate with large profit margins. Customers may also, depending on your competitor's strategies and performance, have preferences towards one supplier due to experience or perception of the value of the brand (Forbis & Metha, 1981). The degree of competition in the market would affect a pricing manager in terms of whether to go for a high or low price strategy (Jobber & Shipley, 2012). Lack of competition opens up the opportunity for premium prices and price skimming (Jobber & Shipley, 2012). Knowledge about competitor's prices on products that directly substitute your own, will determine whether your company have an optimal pricing strategy or not (Forman & Hunt, 2005). The term competition is often only reflected back to direct rivals, but according to Porter (2008) it can be divided into five groups: established rivals, customer's and supplier's bargaining power, threat of new entrants and substitutes. Further explanation of Porter's Five Forces can be found under "Porter's five forces: A strategical analysis tool".

2.1.2.2.2 Barriers and governmental intervention

Legislations are there to protect the customers from being taken advantage of (Fletcher & Russel-Jones, 1997), hence limiting the company's room to be creative with their price strategy. Forman & Hunt (2005) mentions exchange rates, tariffs, inflation and government intervention as influential factors when deciding a pricing strategy. Tariffs create market inefficiencies as a result of protecting domestic industries and therefore increased prices. The risk of hyperinflation and actual government intervention is present and represents a significant international business risk (Makhija, 1993).

The rate of innovation and intensified global competition has shortened product life cycles. Product obsolescence rates accelerate. Managers needs to be more cognizant of, and responsive to market trends such as changing customer needs and competitor offerings (Forman & Hunt, 2005).

2.1.2.2.3 *Customer status and price sensitivity*

The degree of which customers focus on price and to what extent they are able pay for the goods and services offered has received attention from several studies. Forman and Hunt (2005) suggest that the customer's price sensitivity is related to the number of substitute products available in the market, this is confirmed by Jobber & Shipley (2012) who states that the degree of competition impacts managerial pricing behavior. Studies like Park et al. (2011) suggest that businesses underestimate customer's willingness to pay (WTP) due to the fact that no customer has the full overview of all products and prices in a market. The study also suggests that customer's WTP is not fixed but rather is influenced by the posted price due to being unsure about their original WTP and that their price awareness / consciousness affect their total WTP. If a listed price is below a customer's WTP, then the consumer purchases the product; otherwise, he or she will either forego the purchase or seek a more affordable alternative (Sinha & Batra, 1999; Park, MacLachlan, & Love, 2011).

Another interesting view on WTP is described by Hinterhuber (2013): "The theory of WTP needs to be updated to a newer version, ability to pay, which will be based on the soundness of the supplier's business case. At the extreme, a customer's WTP will be based on their ability to pay. If it's a guarantee of performance and benefit, the buyer should be able to make the supplier's business case to their bank and use it as collateral to secure the investment needed to buy the supplier's solution." He claims that when benefits are converted to measurable currency, the WTP increases and when value created can be used as currency to trade internally to obtain funding or acquire it from a local bank, the ability to pay increases.

Customers who are convinced to buy on value perform higher repeat purchases and the claim that buyers desire lowest unit price is only an assumption (Hinterhuber & Liozu, 2013).

If incumbents in industries require large sunk costs and if the economies of scale are great, they can use price as a barrier to entry (Schefferman & Spiller, 1992). Firms in industries where these barriers are high tend to be in a better position and can price higher (Forman & Hunt, 2005).

2.1.2.2.4 *Demand, brand, value and utility*

Even though the phenomenon of brands does not hold the same power in a B2B compared to a business-to-consumer (B2C) context. B2B customers are biased and have product

and supplier preferences that may influence their purchase decision (Hinterhuber & Liozu, 2013). The fact that market forces influence price levels is well established in current literature, and customer demand and changing markets can reduce prices as trends and “flavor of the month” varies (Fletcher & Russel-Jones, 1997; Forman & Hunt, 2005). Businesses have a limited amount of cash and seek to gain the highest amount of value for their money. Therefore, they tend to pay more for goods and services they perceive to yield higher utility than others (Fletcher & Russel-Jones, 1997).

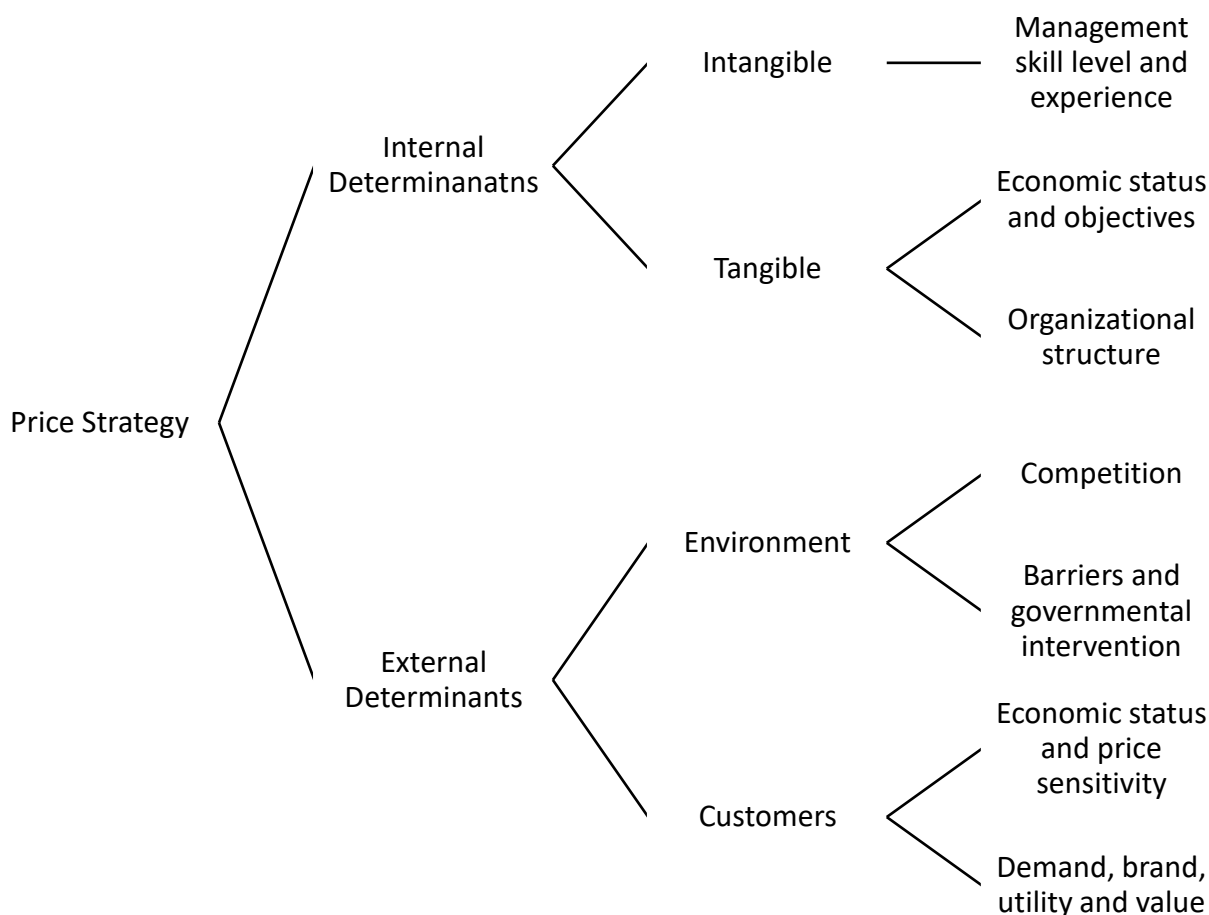


Figure 4: Price determinant summary

2.1.3 Which pricing methods should be considered?

There are several researchers who have written about which methods to use when trying to formulate a pricing strategy. “Industrial Pricing: Theory and Managerial Practice” by Noble & Gruca (1999) is the most influential paper on the topic (Kienzler & Kowalkowski, 2014). It

categorized older research with an industrial goods perspective. Noble and Gruca (1999) defines ten different pricing strategies for four different pricing situations and link them to pricing determinants where some are common to all situations and some are unique to a specific situation. Before you ask yourself which pricing methods, strategies, tactics and policies you want to pursue you need to decide what your pricing objective is. Some methods will be successful in a growth market and some will be successful in mature markets. Your objective will influence your choice of strategy, whether it is profit or market share (Jobber & Shipley, 2012). Forman & Hunt (2005) discuss to what degree internal or external factors affect decision-makers when choosing a price strategy. They mention the following strategies: Transfer pricing, cost-plus pricing, parity pricing, second market pricing, low price supplier pricing, complementary product pricing.

What is important to remember when choosing a pricing strategy in a B2B context, is that companies want return on their investments. The customer's perceived value is influenced by several individuals in the buying company, and your price offer will be subject to analysis to translate the product value into monetary terms. Knowing your customer and how they perceive value is key in such a context (Hinterhuber & Liozu, 2013).

Remembering that your customer is a part of a value chain is important as the actual value brought to the value chain can be higher than the initial perceived value of the product (Hinterhuber & Liozu, 2013).

2.1.3.1 Skimming pricing

Skimming is a strategy where the company takes advantage of a superior position, demands a higher price than the competition and then systematically reduce it over time (Noble & Gruca, 1999). However, few research papers with a topic on which factors that determine if the pricing strategy should be skimming or not exists (Jobber & Shipley, 2012). Although, Jobber and Shipley (2012) has presented a study on this which is discussed under "Which determinants influence price strategies?".

This strategy is most effective where competition is limited (Oxenfeldt, 1975) and there is a high degree of product differentiation (Jain, 1993). Setting initial high prices and then reducing them later to attract customers with a lower WTP is one way to utilize the strategy

(Park, MacLachlan, & Love, 2011). If the company lacks a cost advantage because of scale or learning, it should consider skimming over low price strategies (Schoell & Guiltinan, 1995).

2.1.3.2 Penetration pricing

This pricing strategy involves setting a low starting price to accelerate market growth (Noble & Gruca, 1999), or said in another way, “businesses that utilize the penetration strategy price their new products low enough that the initial offer price is less than the WTP of a large number of potential customers” (Park, MacLachlan, & Love, 2011).

Companies with cost advantages related to large scale production benefits from utilizing penetration pricing (Tellis, 1986). The strategy is also beneficial when there is low product differentiation in the market (Schoell & Guiltinan, 1995), low cost of production and elastic demand (Guiltinan, Paul, & Madden, 1997), minor significance for customers to change supplier and low utilization of factory capacity (Schoell & Guiltinan, 1995).

2.1.3.3 Leader pricing

A price strategy where the company initiates price changes and expects other companies to follow (Noble & Gruca, 1999). Competitors use the leader’s price to set their own price levels, hence this strategy is also known as umbrella pricing (Jain, 1993).

2.1.3.4 Parity pricing

This strategy revolves around imitating the market leader’s prices or maintaining a constant relative price between competitors. One could say that this strategy is born of weakness, because if a company had a superior product it should be able to command a superior price, or if the firm had cost advantages it could become a low-price supplier. If a firm has high costs its only option in a mature market is to employ parity pricing (Jain, 1993) (Guiltinan, Paul, & Madden, 1997).

2.1.3.5 Low price supplier pricing

The low price supplier strategy exploits cost advantages and therefore prices can be set low (Noble & Gruca, 1999), but in order to successfully implement a low-price strategy, having only an internal perspective would be insufficient because customers WTP and competitors

prices are ignored, therefore the company needs to have solid understanding of the market (Forman & Hunt, 2005).

2.1.3.6 Complementary product pricing

This strategy is also known as the razor-and-blade strategy. Company sells main product at a low price and complementary products can then be priced with a higher premium (Noble & Gruca, 1999).

2.1.3.7 Bundle pricing

Bundling involves selling several products together as one package with an attractive price compared to buying each product individually. The strategy is often utilized to avoid price battles with competitors. It can also be used as a mean to win contracts when the company is the only one that can deliver all products and services requested by a customer (Noble & Gruca, 1999).

2.1.3.8 Customer value pricing

It seems there are two distinct definitions of this term. The first involves pricing the least featured version of the product at competitive prices while selling products with additional features to it with increasingly higher prices (Noble & Gruca, 1999). The second involves pricing in accordance with what the company believes the customer values the products to (Hinterhuber, 2004), Figure 5 provides an example of how Hinterhuber (2004) evaluates value to customers.

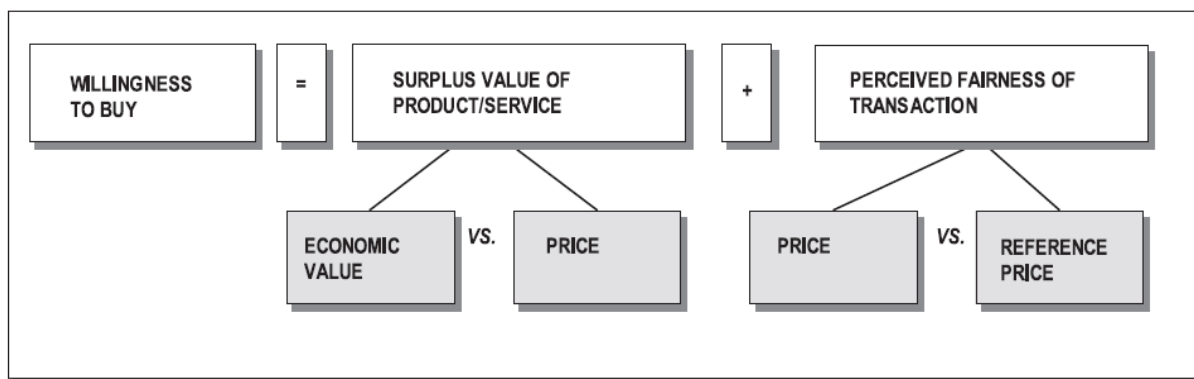


Figure 5: A simplified model of why we buy (Hinterhuber, 2004)

2.1.3.9 Cost-plus pricing

Price is based on the cost of production, adding a percentage of profit on top of that (Noble & Gruca, 1999), and is the most commonly used B2B pricing strategy (Diamantopolous, 1991). The weakness of this strategy is that it ignores customer and competitive information. However, if a manager has little or no information about demand it is expected that he or she is more likely to choose cost-plus pricing (Harrison & Wilkes, 1975). Additional organizational factors may lead to a firm using cost-based pricing, risk aversion or the need to justify a given price internally are examples of this (Noble & Gruca, 1999).

2.1.4 Which situations affect pricing decisions?

2.1.4.1 New Product

When pricing a new product, the customers' WTP can be influenced by observing a posted price. "If the customers use a WTP anchoring mechanism, it will normally be optimal for firms to price higher than otherwise." (Park, MacLachlan, & Love, 2011).

The strategies in this group are skimming, penetration pricing and experience curve pricing. The findings were that skimming was chosen as the strategy in markets with high levels of product differentiation involving firms with a cost disadvantage due to scale.

Penetration pricing was used more often by firms with a cost advantage due to scale and those facing a high level of market elasticity as well as a low level of brand elasticity. This strategy is being used early in the product life cycle when there are few direct competitors and competition comes primarily from substitutes (Noble & Gruca, 1999).

New products need a high pricing strategy focus, because if not, the company risk losing the desired advantage sought through investing in the development of it in the first place. However, engaging in a value-based pricing structure, despite its undisputable beneficial effects, is not enough. The company should decide upon an objective, being market share or higher prices, then analyze which benefits are tied to the product; technology superiority or lowest relative costs, and study the competitive intensity of the planned market. Together, the findings from these analyses should lead the company towards the optimal pricing practices (Ingenbleek, Frambach, & Verhallen, 2013).

2.1.4.2 Competitive

In a competitive situation, the main focus is to price products relative to its competitors. Since several products have had time to catch up with the initial innovation and therefore many products suffer commoditization, in this situation the market can be seen as mature. Noble and Gruca (1999) suggests that leader pricing, parity pricing and low-price supplier strategies is the most suitable strategies in this situation.

2.1.4.3 Cost-based

This situation is described as something the company will intentionally or unintentionally choose to be in and comes from have a very strong focus on internal determinants. Studies show that this situation and strategy has been the favored one for decades (Hall & Hitch, 1939; Kaplan, Dirlam, & Lanzillotti, 1958; Bonoma, Crittenden, & Dolan, 1988).

2.1.4.4 Recession

In recession times, competition increases, and the challenge becomes to act upon and win the few big opportunities that arise with terms that allows for profits to be generated. As much as a 30 percent price drop and a 10 percent profit margin increase can be achieved by performing a high-quality scope review (Hinterhuber & Liozu, 2013). The market normally consists of aggressive players where the buyer pushes the technological leading supplier to deliver the same prices as the low-price supplier. Playing the low-price game is not smart and a company should find other ways to win work and gain market share, like utilizing smart pricing. The key is to use a strategy to enable the company to enter the competition at a low entry price, but being able to perform with profits after acquiring the work and so the question is how to create this strategy.

Offering the exact service and product that the customer request, is the first step on creating a sustainable strategy. The second step is to make sure to really understand the scope of work, which can be done through scope revision together with the customer. A scope review is important because it optimizes the bid so that the company is able to win, without leaving too much money on the table. If the customer does not accept meetings after the request for proposal (RFP) has been issued, there are several actions that could be taken to still be able to enhance ones understanding of the scope so that the company can price low on the requested items and services, and higher on items outside the scope.

Hinterhuber (2013) provides the following list:

1. Perform an internal scope review
2. Exclude extras and redundancies from the proposal
3. Include only the technical level that is described in the RFP
4. Assume that what is not in the RFP specifications in your favor
5. Utilize a roadmap to optimize cost efficiency
6. Avoid pricing anything not specified in the RFP
7. Carefully analyze the service resource dimensioning as it can come at high costs
 - a. Travel, living expenses, tools, cars, phones etc.
8. List third party components needed separately

There are some pit falls that the company should be aware of when pricing in a proposal. The first pitfall is setting flat discounts on a list of items. It is better to offer special discounts on

a package or project. If discounts need to be offered on item lists, Hinterhuber (2013) recommends that the company tries to discount only items that have quantities different than requested in the RFP. Other things to be careful about includes committing to future discounts, special business models like pay-as-you-grow or revenue sharing, and special discounts like a percentage of sales (Hinterhuber & Liozu, 2013).

Considering the previous prices the customers operated with, investigating the customer's business model, understanding where the scope will expand and grow in the coming years, pricing exclusive, differentiating products high, exploring price levels for similar customers, excluding products not requested from the proposal and knowing how the customer will run the negotiations is all key topics when deciding on a pricing strategy (Hinterhuber & Liozu, 2013).

2.1.5 Which frameworks could be used to guide pricing decisions?

The price influencing factors and existing methods to pricing strategies has been discussed and now we are going to take a look at how these factors and methods can be tied together to forge a pricing strategy.

Companies using a cost-based pricing strategy are 35% less profitable than companies executing value-based pricing strategies. Also, companies executing value-based pricing strategies poorly, are 20% less profitable than those executing this strategy strongly (Monitor Group, 2011). In 2004, A. Hinterhuber presented an integrative framework to help guide managers towards value-based pricing (see Figure 7), and in 2014, Hinterhuber and Liozu stated that being innovative in pricing could be the next way for companies to differentiate themselves by presented a roadmap to innovative ways to use pricing strategies. The road map is provided in "Table 1".

Recent research confirms that companies' pricing strategies largely revolves around competition or cost-based pricing and that discounting is the only pricing tactic used. Less than 5% actively engage in innovative pricing strategies, tactics and dedicate functions to prizing work. Several pricing strategies and pricing tactics exists and one could argue that the extent and content of such a strategy is only limited by one's own imagination. Hinterhuber & Liozu (2014) claim that many companies that only focus on product innovation are missing out on important opportunities for value capture, and that if a company were to implement the ideas from their

“Roadmap for innovating in pricing” they would see higher profitability and customer satisfaction.

Customers, represented by procurement professionals and management teams, are recognizing total cost of ownership as more important than unit price when making a purchase decision. This recognition is what opens the door for value-based pricing, because a product with defined differentiated value affects a customer’s bottom line in several ways, not just as a cost. In order to sell value, the total cost of ownership (TCO) needs to be communicated and Figure 6 shows examples of factors that impacts TCO.

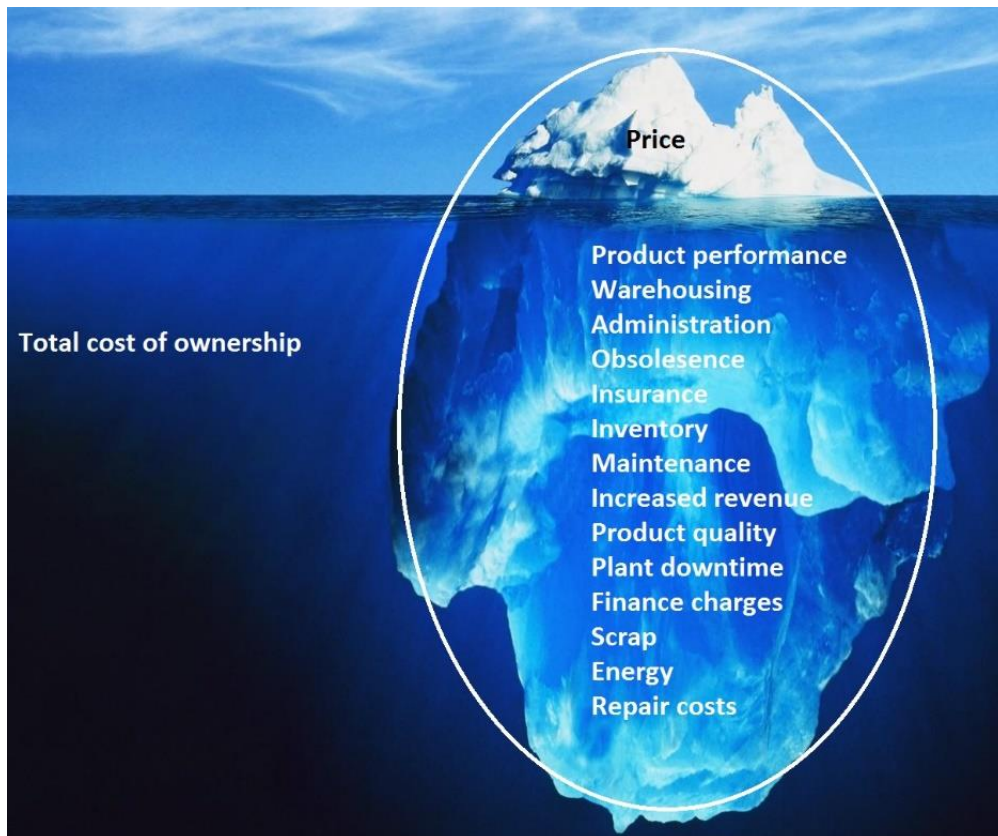


Figure 6: Total cost of ownership (Hinterhuber & Liozu, 2013)

In addition to what value the product brings to the customer, it is important to also know when, where and how. If the product is a part of the customer’s product, it could have benefits which would yield value in the design phase of the customer’s product, like being made of a superior material, hence lowering maintenance and malfunction rate of that component. In the same way, the operation phase and disposal phase needs to be analyzed to fully capture the products value.

2.1.5.1 Integrative pricing framework: Towards value-based pricing

The model (Figure 7) was designed to help companies implement a value-based pricing strategy. Firstly, the company needs to decide what their objective are, why they are pricing the product(s) and thereafter perform the necessary analysis. Three parties need to be investigated; the customer, the company and the competitors. The analysis' leads to a range of profitable prices on which the price (or price change) is determined and implemented (Hinterhuber, 2004).

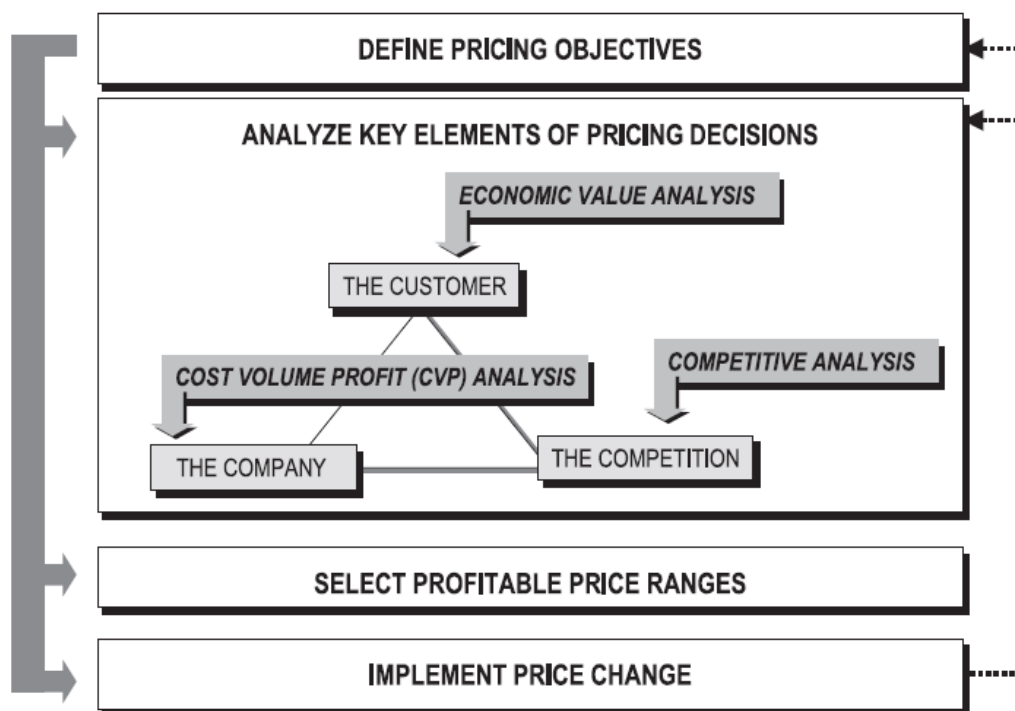


Figure 7: Framework for value-based pricing (Hinterhuber, 2004)

What is important to note is that pricing is an iterative process, the environment in which the prices has been set is ever-changing and hence the prices should too (Hinterhuber, 2004).

2.1.5.1.1 Define pricing objectives

The first thing a company should do before starting any form of analysis, is deciding why they set prices. What is the reason behind the company's price level? A price objective can be e.g. high profits in the short term, steady market growth in the long term or any other reason that connects the company's financials to its vision, mission and value proposition. The pricing objective can vary by type, for different products and over time, but it is always related to the

exact context in which the prices are set. This means what environment the product or service is being sold in, referring to internal and external determinants.

The company should, however, be careful about adopting a global pricing strategy, because local variations impacts profitability and the pricing objective might be different from country to country (Hinterhuber, 2004).

2.1.5.1.2 Analyzing key elements of pricing decisions

When the pricing objective is set, it is time to analyze the environment in which the price and strategy will exist in. Hinterhuber (2004) propose that cost, volume, profit analysis is performed for the company perspective to understand what how the various levels of these factors impact the break-even point.

The customer's WTP and ability to pay should be analyzed to understand what is of value to the customer. This helps the company segmenting the market so it's easier to pursue the segments most suitable for the company. Once the customers value perspective has been analyzed, the company could assign monetary values to the differentiating attributes in its product and use that as a baseline for pricing the product.

Finally, a competitive analysis should be conducted to understand price levels and even their strategies. Understanding the threat of new entrants, price trends, market distribution channels, the reference values for the customers and how they will react to a price change will be important input in the process of creating the price strategy.

2.1.5.1.3 Determine profitable price ranges

When the company has acquired the necessary overview the company needs to define its profitable price range. Creating a model and interpret how volume and profit interacts if one of them changes will be helpful in this exercise. Efforts to determine customers price elasticity should also be made (Hinterhuber, 2004).

2.1.5.1.4 Implement price changes

Once the price strategy has been set, the pricing needs to be implemented and communicated. In this phase, it is unquestionably vital that management follow up on their sales force. A pricing framework in a large international corporation is rarely followed to the exact

detail, because sales personnel are always tempted to win the deal with unorthodox methods if they can. To manage the implementation of a pricing strategy, Hinterhuber (2004) lists the following:

- involve sales executives in any pricing decision
- implement a fixed-price policy
- reward sales personnel for profits, not sales
- involve sales personnel in the strategy process
- be creative with marketing strategies
- make the company easily accessible for customers
- commercial and technical personnel should converge.

2.1.5.2 Innovative pricing roadmap

In 2014, Hinterhuber & Liozu conducted a large number of interviews to investigate to what extent companies utilize innovative pricing strategies to differentiate themselves from competition. They suggest that too many companies have a win/lose perspective on pricing and that the right pricing strategy is much more than just what determines a win or a loss. Only 5 % of companies they interviewed engage in innovative pricing strategies and most of these companies had an attitude matching the phrase “Pricing did not change much the past decades, why should it now?”, hence the opportunity to gain a competitive advantage is present.

Their innovative pricing roadmap presents suggestions to how companies can use innovation in pricing to both increase profits and customer satisfaction at the same time, by differentiating them from competition.

Hinterhuber & Liozu (2014) recommend that companies utilize innovative strategies and tactics together with an organization built for creating and maintaining the competitive edge earned by doing so. Table 1 provides an overview of the roadmap.

Table 1: Innovative pricing roadmap (Hinterhuber & Liozu, 2014)

Element	No innovation in pricing	Roadmap for innovation in pricing						
Strategy	Cost or competition-based pricing	Good-Better-best market segmentation	Needs-based market segmentation	Pay-for-performance pricing	Pricing to drive market expansion	New metrics	Zero as special price	Participative pricing
Tactics	Discounting	Revenue management	Contingent pricing	Bundling	Individualized pricing	Flat fees	Creative discounting	Psychological pricing
Organization	No pricing team	Dedicated pricing function	Centralization of the pricing function	CEO's as pricing champions	Confidence	Company-wide pricing capabilities	Change management	Pricing experiments: Pricing as learning

2.1.5.2.1 Innovative strategies

The innovative pricing strategies in the roadmap are alternatives to the traditional cost-based or competition based strategies that most companies use. The good-better-best market segmentation strategy relates to modifying your prices to fit different customers under the prerequisite that all customers are not the same and value different things, hence capturing more value for the product.

The needs-based market segmentation is closely related to the good-better-best version, but focuses strongly on segmenting customer groups based on needs, not price.

Pay-for-performance pricing is a strategy where the company is paid for the performance outcome and is based on a predetermined set of key-performance indicators (KPI) agreed upon with the customer.

Pricing to drive market expansion is not a strategy to gain market share, but a strategy to increase the actual market size, making a product feasible for a larger group of customers.

New metrics is related to pricing according to what your customer's objectives are. Examples of this is charging per kilometer an engine runs instead of selling it as a unit or charging for number of passengers transported by an elevator instead of selling it at cost-plus price.

Zero, as a special price, means giving your product away for free, but earning a profit elsewhere. Google is an example of this, where using the search engine is free, but companies have to pay google to show up higher on the search list.

Finally, participative pricing is mentioned as a method where the company relies on customers' fairness considerations and lets them pay whatever they want. Wikipedia is an example of this price strategy.

2.1.5.2.2 Innovative tactics

Innovative tactics are specific tweaks to pricing strategies that enhance its effect even further. One way to do this, is by adjusting price levels and bookable capabilities like seen in air travel companies, and is called revenue management.

Another tactic is contingent pricing, and it refers to where the company agrees to sell the product at a low price if a higher price is not successfully obtained in a specific time period. In practice this includes the option for the company to buy back items from customers in order to sell it at a higher price to customers who needs the product more.

Bundling is a price tactic where products are grouped and sold together and the company could achieve higher profits than selling products separately if the customers vary in their judgement of individual component value.

Individualized pricing is referring to how e.g. the insurance businesses are able to charge customers differently for the same product, based on the customer profile.

Flat fees are a tactic where customers get free consumption of a product for a fixed fee and even though customers end up paying more for the product, customer satisfaction is actually higher with this tactic than for a pay-for-consumption price tactic.

Creative discounting can be performed in a number of ways. They can be non-linear, steadily decreasing, organized as bonus packs, presented in creative ways, applied in a non-related market and participative. Companies can also utilize free supplementary products where the product is free if certain criteria are met, as a tactic in the middle of totally free products and a full charge for the product.

Psychological pricing is the last tactic suggested and is a tactic where the company utilizes the fact that customer's preferences are not constant. They change as customer's

perception of value change and utilizing a nine-ending on the price or posting a high reference “old” price is mentioned as ways of psychological pricing.

2.1.5.2.3 Innovative organization

Lastly, the model presents ways of organizing a company to utilize innovation in pricing optimally. The main point is to have a dedicated pricing function in the company, but this function can be organized in several ways.

The function can be centralized, meaning it is positioned in the company’s head quarter as a control unit. It can also be combined with decentralized functions to increase performance if the company operates in several geographical locations.

If the process of pricing is centrally supported, meaning supported by the CEO of the company, this will have a positive influence on the firm’s performance.

It is important that whoever holds the pricing position in the company, has confidence to say no to a price reduction. Price erosion is negative for the company and once the low price has been set, it is nearly impossible to recover.

Investing in increasing the company-wide pricing capabilities is important because pricing is a complex process needing skilled personnel with a broad understanding of the three areas affected by price: customers, competition and the company.

If the company decides to embark on a journey to improve its pricing capabilities and utilize innovative pricing, this needs to be seen as a change process and therefore it needs to be managed like one.

Finally, if the company has a strong market position it can utilize pricing as a way of organizational learning, and hence gain a better understanding of the market it is operating in.

2.2 Analysis tools

This chapter presents the analysis tools deemed relevant by the author. Based on Hinterhuber’s (2004) integrative framework, two analysis methods have been chosen to study the problem statements qualitatively.

2.2.1 Which analysis tools can be used to analyze this case?

2.2.1.1 Porter's five forces: A strategic analysis tool

Porter's five forces is a framework developed and presented in 1979 by Michael E. Porter in the Harvard Business Review magazine and is another way of looking at determinants for choosing a strategy, compared to the presented content under "Which determinants influence price strategies?". Porter (2008) suggested that a company that is subject to competition addresses this competition in various ways, but that many managers define competition too narrowly, only looking at direct rivals as competition. He discusses competition by using a profit pie chart, where all five forces in an industry compete to get the largest share of that pie. He argues how it is the industry structure, not fleeting factors that decide how a company should decide its strategy. According to Porter (2008) competition can be divided into five groups, rivalry among existing competitors, bargaining power of suppliers, bargaining power of buyers, threat of new entrants and threat of substitute products or services. These are presented in Figure 8. These forces provide a framework for analyzing the competitive environment a business operates in or plans to enter.

Porter (2008) claimed that a company should aim at positioning itself where these forces are weakest, exploit the changes in the forces and reshape the forces in the company's favor in order to outperform competition.

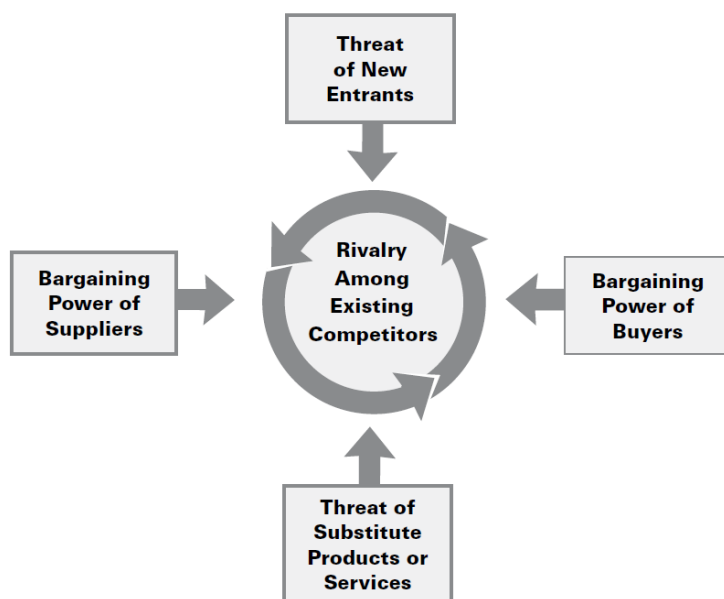


Figure 8: The five forces that shape industry competition (Porter, 2008)

Porter (2008) also argues why complementary products and governmental involvement does not represent a sixth and seventh force, by stating how these influence the other five forces rather than being separate forces on their own.

Analyzing the forces, understanding what creates profitability in the market and what it would take to change it, is key to being able to exploit it and sustain or increase the company's competitiveness. Foreseeing structural change could yield potential opportunities and at the very least prepare the company for the change so that it can defend itself. For example, changes in buyer/supplier power can change the industry profitability. When internet became common to all, buying airline tickets became much easier for the individual buyer and therefore airline companies gained power and were able to bargain down the travel agent's prices. Perhaps the most relevant example on change in the structure of an industry for this case is how threat of substitutes increases with new technology inventions (Porter, 2008). When digital pressure testing software was introduced it became a substitute to the analogue gauges traditionally used to measure and record pressure versus time.

Porter (2008) explains how the competitive landscape of industries changes over time and argues why the correct measure must be taken to act against a change. For example, he says that working to eliminate a rival through mergers or and consolidation is not necessarily the best measure for reducing the amount of rivalry in the market, because the fall of one competitor can lead to the rise of other competitors and hence a change in the threat of new entry's.

The key to utilizing the five forces in a strategical analysis is to find out why the market profitability is at a certain level, so that the strategy can be built around addressing the industry-specific factors (Porter, 2008). In the same way, you can use the five-force analysis tool to find out why the profitability level of a specific product or service is where it is and as stated the objective of a strategy is to exploit one or more of the following: positioning the company, foresee structural shifts and influencing the balance of the structure to better favor the company (Porter, 2008).

These three strategical areas, and the decisions within each of them, are influenced by the forces that are currently constraining the profitability of the industry. All five forces exist within all industries, but normally some forces stand out to be the most limiting one in terms of profitability. Therefore, analyzing which ones that are the limiting ones, and addressing them is the purpose of using the five-force analysis tool. Choosing to position the company as a mean to

address the industry constraints and can be done by either building defenses or targeting a part of the market where the constraints are weakest. To exploit a change in the industry structure one has to foresee the possible profitable new areas and target those before the competition, and to shape the balance of the structure a company can work towards re-dividing the profitability in favor of the incumbents (i.e. reducing the leak of profits going to others than the rivals in the industry) or by expanding the profit pool of the industry (growth of demand and reduction of cost through cooperation of the industry players).

2.2.1.1.1 Rivalry among existing competitors

Rivalry is the traditional view on competition and is seen as price wars, commercial campaigns and service improvements. The degree of rivalry determines profitability, where high degree of rivalry lowers profitability and vice versa. The effect of the rivalry on the industry profitability is affected by the intensity and basis of the rivalry. If the competitors are numerous, roughly equal in size and power, industry growth is slow, exit barriers are high and market commitment is high, the rivalry intensity is at its greatest and thus lowers profitability. If the basis for competition revolves solely around price, it is particularly negative for industry profitability (Porter, 2008).

2.2.1.1.2 Bargaining power of suppliers

“Powerful suppliers capture more of the value for themselves by charging higher prices, limiting quality or services or shifting costs to industry participants”, therefore a powerful supplier increases cost and reduces profitability (Porter, 2008). If the supplier has the ability to be more concentrated than the market it sells to, it does not depend on the industry for its revenues, has differentiated products, operates in a monopoly and the industry switching costs is high, the supplier is powerful (Porter, 2008).

2.2.1.1.3 Bargaining power of buyers

Powerful customers have the ability to force prices down. A customer has high bargaining power if there are few buyers and it makes large volume purchases. Other factors that gives power to the buyers is standardized industry products, low switching costs and the ability

for buyers to integrate vertically, meaning producing the goods of the supplier themselves (Porter, 2008).

2.2.1.1.4 Threat of new entrants

Any industry is subject to the threat of additional companies entering to participate in the delivery of goods and services. Large companies can for example utilize capabilities from other markets in a new market and influence the competition relationships there. An example is when Pepsi entered the bottled water market (Porter, 2008).

Two factors that affect the threat of new entrants is how high the entry barriers are and how the incumbents will react to a new entry. The threat of entry must not be mistaken for actual entry as it is the threat that limits the industry's profitability (Porter, 2008). The expected resistance from incumbents and actions to mitigate the effects of a new-comer can be influenced by e.g. incumbents broadcasting public statements or sending specific targeted messages to the new-comers, stating their commitment to defending market share (Porter, 2008).

The new entry barriers can come from seven different sources.

1. Supply-side economies refer to companies which produces large volumes and the fact that they benefit from lower unit production costs. This generates a barrier to entry because new entrants need to enter on a large scale or accept a cost disadvantage (Porter, 2008).

2. Demand-side benefits refers to a customer's perception that large companies are more trustworthy than new-comers. Being in a network of customers is comfortable, safe and valuable to buyers and is therefore a barrier to new entries (Porter, 2008).

3. Customer switching costs. When buyers switch supplier, there is often a fixed cost tied to that process. These costs can be related to altering the product specification, training employees in a new system or other modifications needed to make the switch (Porter, 2008).

4. Capital requirements. Entering a new market requires investments to enable that opportunity. New machines, advertisement, buildings etc. might be needed to be able to start delivering the planned services or products (Porter, 2008).

5. Incumbency advantages independent of size. Several factors may be favorable just for being the incumbent. Examples are experience with the market which has led to lessons learned that optimizes production costs and a renowned company name which is favored by the market (Porter, 2008).

6. Unequal access to distribution channels. If access to supplies is highly affected by the incumbents, it might be difficult for new-comers to establish a cost-effective supply chain in the new market (Porter, 2008).

7. Restrictive government policy. Governments have probably the largest influence on barriers to entry as it can prohibit entries all together or create an environment that favors new entries (Porter, 2008). An example of this is how the Norwegian government has recently extended unemployment benefits to the extent that unemployed people can apply for a business start-up extension for up to 12 months (NAV, 2016).

If any of these barriers statuses were to change, e.g. a patent expiring, it would change the threat of new entrants because the market attractiveness would change (Porter, 2008).

2.2.1.1.5 Threat of substitute products or services

A substitute is something that gives the user the same or similar effect as another product or service, such as e-mail being a substitute for traditional mail. High threat of substitutes reduces the industry profitability (Porter, 2008).

2.2.1.1.6 Common pitfalls

There are some common pitfalls to using the five-force analysis tool. These are presented by Porter (2008) as follows : “defining the industry too broadly or too narrowly, making lists instead of engaging in rigorous analysis, paying equal attention to all of the forces rather than digging deeply into the most important ones, confusing effect with cause, using static analysis that ignores industry trends, confusing cyclical or transient changes with true structural changes and using the framework to declare an industry attractive or unattractive rather than using it to guide strategic choices”.

2.2.1.2 VRIOLU: Revealing resources with lasting competitive advantage

VRIOLU is a management resource-based view (RBV) analysis tool, developed by (Hinterhuber, 2013). It is based on the VRIO-model (Barney, 1997) which analyzed the internal resources of a company. The way this tool was meant to work, was to reveal of any of the company’s resources could be labeled as lasting competitive advantages by asking if the resource was valuable, rare, hard to imitate and if it was organized in such a way that it was utilized

optimally. The flaws of this tool revolved mainly around the method being static, meaning it didn't have a futuristic view that could predict if a resource would indeed be a lasting competitive advantage. The lack of direct usage among managers, and that any adapted version of it rarely led to meaningful actions was also a problem (Hinterhuber, 2013). Hinterhuber (2013) presents an updated version of the VRIO framework with suggestions to improve on these flaws by adding customer needs and size of addressable market segments as areas to analyze. The framework is illustrated in Figure 9.

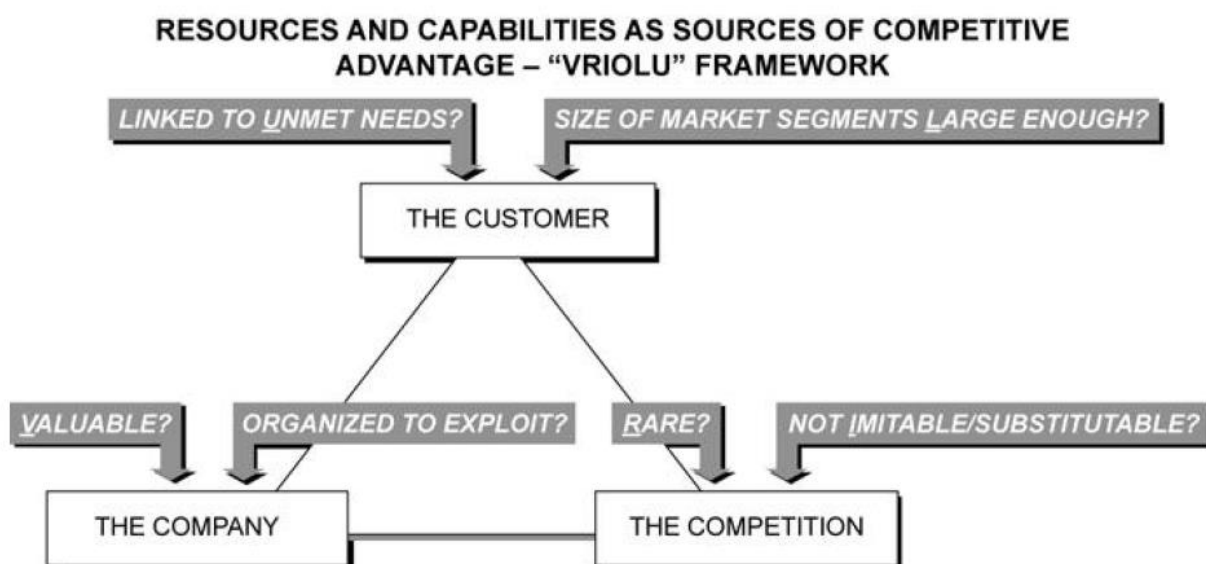


Figure 9: The extended resource-based view framework VRIOLU (Hinterhuber, 2013)

The two latter letters, “L” and “U” refers to unmet needs of customers and how large the size of the market segment is (Hinterhuber, 2013). Hinterhuber (2013) also pointed out that it is insufficient to label a resource as a lasting competitive advantage that would lead to higher-than-market profits by only studying if a resource leads to customer value being higher than the product price, which again is higher than the cost of sold goods. He states that both fixed cost and customer heterogeneity is overlooked and, that to have a realizable lasting competitive advantage, the resource needs to also deliver an absolute contribution profit margin higher than the company’s fixed cost.

Hinterhuber (2013) concludes that his extended model addresses the shortcomings of the VRIO model, but acknowledges that his model requires a costlier and more time-consuming

approach because it needs an in-depth understanding of customer's needs, market sizes and customer's WTP, which is also linked to the main limiting factor of his model.

The level of understanding and knowledge about customer's unmet needs. Hinterhuber (2013) provides the following list to describe the six aspects of internal resources:

1. It needs to be valuable, meaning enabling the firm to exploit an external opportunity or to neutralize an external threat.
2. It needs to be rare, meaning perfect competition has not occurred.
3. It is imperfectly imitable and non-substitutable, meaning competitors face a cost disadvantage in imitating or substituting it.
4. The company is organized to exploit it, meaning the company's structure and processes are designed to enable people ability and incentive to exploit it.
5. It is sufficiently large, meaning it address a market segment that is large enough to cover the fixed costs.
6. It makes the company able to meet customer's unmet needs, where a need is unmet if the customer perceives it as high in importance and low in satisfaction at the same time.

3 Methodology

The author utilized three methods for studying the problem statements, a literature review, in-depth interviews and a case study. The literature review was based on material gathered from academic databases with access from the university library which forged the basis for the interview questions. The information received from these two methods, including information collected through observation by being directly involved in the project, then made the foundation for performing the strategical analysis of the case. The strategic analysis of the case was performed utilizing two renowned tools, Hinterhuber's (2013) modified VRIO model and Porter's Five Forces (Porter, 2008), to look at both the internal and external environment of the project.

Qualitative research is reliant on several sources of information to be accurate (Yin, 2014); therefore, the author has chosen three methods of collecting data: observation through active participation in the project, in-depth interviews of key personnel and literature review.

The research design for this thesis was an approach based on qualitative empirical data in a case study setting. This approach served as the plan to link the problem statement to the theory and analysis, where the problem statements were addressed and discussed.

“A qualitative case study is an intensive, holistic description and analysis of a bounded phenomenon” (Merriam, 2009). The bounded phenomenon analyzed in this thesis is how to price a new product with all the different determinants and influencing factors that exist within the specific case setting. The case setting consists of the oil and gas industry, inside one of history's worst downturns, where the Company works towards commercializing a software globally as an answer to the industry's call for efficiency.

The factors determining which research method to choose is what type of question the research is trying to answer, the extent of control over the behavioral events and relative focus on contemporary versus historical events. In a situation where the researcher has little influence over the behavioral events, the focus is on “how” a phenomenon behaves and the study focuses on a modern phenomenon, a qualitative case study is most suitable (Merriam, 2009).

The challenge with a qualitative case study is to manage the immense amounts of data, and forming a case database while collecting data is key to obtain an overview that is suitable for analyzing it (Merriam, 2009).

3.1 Literature review

To find relevant information about pricing strategy and analysis methods relevant for this case study, searches was performed in the several databases like Emerald, Google Scholar, RePEc and ScienceDirect, using these search-words:

- price
- pricing
- strategy
- B2B
- B2B
- determinants
- methods
- tactics
- international
- new product
- software
- VRIO
- Porter's Five Forces
- oil and gas

Using different combinations and selecting papers based on relevance and publishing dates led to a total amount of 31 papers to read. A search through the university library, with the same key words in mind, led to the finding of 6 relevant books. After some refinement, a total of 7 papers and 2 books were chosen as primary sources.

The process of conducting a literature review can be time consuming and one have to be mindful of the origin of the papers and information obtained. The challenge is to ensure the sources of the data is reliable and up to date while keeping the overall amount of data to a manageable level. A limitation also important to note is that the author did not have access to all databases, hence limiting the accessible knowledge pool. The complete literature review can be found under “

Theory: Literature Review” and an overview of the different topics reviewed can be found in “Appendix B: Pricing strategy topic overview”.

3.2 In-depth interviews

An in-depth interview is designed to explore individual’s perspectives on a specified phenomenon, and is normally performed on a small number of respondents (Boyce, 2006).

The author conducted four in-depth interviews where the interviewees held key roles within the department, the project organization and the Company as a whole. The difference in the interviewees’ positions and responsibilities were distinct. The interview guide used during the interviews can be found in “Appendix A: Interview guide”.

The purpose of the interviews was to gain understanding and perspective of the data observed through active participation in the project team. How the project group weigh the importance of pricing strategy theory and how it utilized pricing strategy to make the commercialization of the new product as successful as possible was key information. Important information from the interviews included how the project group saw the market and industry in relation to current theory and pricing strategy best practice. The data acquired from the interviews were used as input to further analysis’.

The limitations and pitfalls of in-depth interviews are that they are (1) prone to bias because the interviewees often are participants in the research case and therefore are stakeholders. The interview process can be (2) time-consuming because the data from the interviews can be conflictive. The interviewer must have (3) appropriate interviewer skills to effectively execute the interviews and the data obtained is (4) not generalizable because of the small sample size (Boyce, 2006).

3.3 Case study

This qualitative case study investigates how the Company, which operates in the oil and gas industry can strategically price a specific new product for optimal profits during the product's life cycle and how the degree of competition will influence the choice of strategy. Hinterhuber (2004) through his "Integrative Pricing Framework" recommend that to be able to decide on a pricing strategy, three aspects needs to be analyzed: the competitors, the Company and the customers. The two analysis tools chosen to acquire an adequate understanding of these three aspects in relation to the problem statements are Porter's Five Forces (Porter, 2008) and the VRIOLU framework (Hinterhuber & Liozu, 2013). These tools are constructed to analyze the five forces of competition and how internal resources in a customer-company-competition relationship leads to lasting competitive advantage.

The three most commonly known pitfalls of using a case study as a research strategy is: (1) the presented data can be vague and biased, (2) generalization of the findings is challenging and (3) it can be time consuming (Yin, 2014).

4 Analysis

In this chapter an analysis of the collected data will be presented. The uncovered relevant literature was set up in a context overview, see “Appendix B: Pricing strategy topic overview”, where all the topics were evaluated against each other and 13 topics were removed from the final review.

The interviews were carefully examined for statements which directly or indirectly described one of the four topics: company, customer, competition and pricing strategy. Then the relevant statements were divided into these four groups and analyzed further to uncover trends and conflicts.

The case study was analyzed using Porter’s Five Forces (Porter, 2008) which examines the competitive environment, and then the VRIOLU framework (Hinterhuber, 2013) was used to analyze the internal resources of the case in relation to customers and competition to see what impact the findings could have for the development of an optimal pricing strategy.

4.1 Literature review

The full literature review can be found in “Theory: Literature Review”, but a summary will be given here. The literature review revealed the limited attention pricing strategy, and especially in a B2B context, has received in the research community compared to the other three parts of the marketing mix; product, place and promotion. Most papers read on the topic, started their papers’ introduction with this statement in some form. Additionally, Fletcher & Russel-Jones (1997) said that the process of setting prices is only an easy exercise when the market operates in perfect competition, which is rarely the case.

Traditionally, pricing compared to the other three P’s in the marketing mix, has received scant attention from companies and most companies use a cost-based approach to pricing. Few managers have any extensive knowledge on how to utilize pricing strategies as a tool to reach the company objectives.

Gabor (1988) lists four assumptions traditional economy theory is based on and says that they and any theory developed with them as a basis are weak:

1. that companies only have one aim, to maximize profits
2. that the proportions of products sold by the company is roughly equal
3. that managers have full knowledge about their company's cost / volume relationship
4. that they have full knowledge about their company's volume / price relationship.

Hinterhuber & Liouzu (2013) lists four traditional traps managers fall in when it comes to pricing:

1. lower prices increase market share
2. customers will only buy on price
3. a company must set its prices at the markets prices
4. a company must lower prices to win deals

The foundation for the interviews and case study was based on the findings in the literature review. These consisted of seven determinants, nine pricing methods, four situations and two frameworks.

4.2 In-depth interviews

The interview analysis uncovered 34 comments with high significance for the study, where 5 could be placed under "competitors", 6 could be placed under "customers", 14 could be placed under "company" and 9 could be placed under "pricing strategy". The statements were then analyzed based to see if any valuable information could be seen that could yield significance for the problem statements.

For the competition, two findings were observed. Firstly, the company had significant knowledge about the largest competitor, which only competes in the Gulf of Mexico (GOM), but less information about competition in the international market existed. These statements are indicators of this finding: "We had a good understanding of the competition before we started, we actually knew the pricing structure and strategy of our biggest competitor from the start", "in the GOM, it could quickly turn into a price war", "we do not know too much about the

international competitors pricing strategy”. The second finding related to competition states predictions of future competition and product life time as a result of this competition. One interviewee stated that “internationally we believe the competition will pick up mostly because of a pull from our customers, rather than a push from the other suppliers, therefore we expect it will take three years before this product is commoditized.”

Statements related to the customers revealed two findings. The first finding relates to how the customers will influence our pricing of the product. The interpretations of these statements are that the customers are in a strong position and have a strong influence on the product price: “Including this product in tenders now could be both good and bad for us. Good because we are the only service provider that can deliver this service and bad because our customer’s procurement teams are strong”, “for this product, it seems like we will only have a two to three-year window where we can charge a premium price. Large customers will try to commoditize it as soon as possible” and “the market is highly contractual and that makes pricing new products harder”. The second finding was related to the company’s interpretation of what is valuable to the customers and only one factor seems to be acknowledged as valuable in this market, that being spending the least amount of time on un-productive activities, e.g. pressure testing. The following statements confirm this: “the value for the customer lies in getting back to drilling as fast as possible”. Customers in this market also want an easy job comparing prices between different suppliers, which is therefore seen as valuable and is extracted from the following statement: “our customers want easy pricing so they can track and compare prices more easily”.

In a company perspective, two findings were observed. The first finding was that the company had insufficient focus on pricing of new products and utilizing innovative pricing strategies. Phrases like “there is a heck of a lot more we can do to become more efficient”, “we probably didn’t give ourselves enough time to look at different pricing models”, “we used a comfortable method that we had used in the past”, “we need to get better at pricing new products”, “countries drive pricing, not the global organization and we need to get better at pricing new products” and “we mostly tend to do what we have done before” are indicators of an existing potential to optimize the current processes and chosen price strategy. Secondly, despite the first finding, the company has formulated a strategy with specific objectives in mind. It has a pricing objective and it wishes to increase the profitability of the pressure testing service, which has been commoditized for many years. The following statements are indicators of this: “our

pricing objective is to achieve highest possible profits in the short term”, “the strategy to fight commoditization is to keep adding new features and introducing new generations of the product”, “we want to promote this as a service to lift the process of pressure testing out of commoditization” and “this product is one of the products we can market, if we get the pricing right, as our way of contributing to our industry’s efficiency focus”.

One finding was observed under the topic “pricing strategy”. It was challenging to find several coherent statements on this topic, but the general impression the author was left with, was that the company has various degrees of knowledge about pricing strategy, which is an improvement-area that would increase the likelihood of implementing an optimal pricing strategy. Some statements reveal the company’s reluctance to price low, e.g. “once you set the price too low, you are in trouble, because you can never recover”, and other statements like “B2B is a tangible large scale environment and our customer’s decision makers are the procurement groups. In a B2B market, the company has few customers when in a B2C market it can have several thousands, meaning we only have to convince a few people before the product is adopted globally” and “the price should be tied to what the customer will consume, not a flat global price book”, indicating some knowledge about the role of a pricing strategy, but no strong common pattern was observed across all interviewees.

4.3 Case study

The author is a full-time employee in the Company and has been dedicated to work on the commercialization project full time for six months. Through this active role in the project group, the author has gained access to data about the market through surveys conducted by the project group, competitor information, plans and strategies regarding all aspects around the commercialization, including pricing.

The process of pressure testing a BOP on a deep-water rig, and to confirm its functionality is divided into three parts. The operators are the party which is responsible for running all the activities on the rig in a safe manner and has all communication with regulatory bodies. The BOP is normally owned by the rig company, which also owns the rig, while the service company runs all the services on the rig.

4.3.1 Product specifications

The DBOP PTS is intended to replace the traditional way of verifying if a test passes or fails, and currently it is targeting deep water rigs with subsea BOP's. The traditional method consisted of analogue gauges and circular charts made of paper, where a needle in the gauge would draw a line on the chart and the operating company could afterwards inspect the chart and verify if the test passed or failed the testing criteria's. An example illustrating the examining of traditional test results are provided in Figure 10.



Figure 10: Traditional circular chart for pressure test recording

The new digital method will have two main features, (1) a time savings algorithm and (2) an autogenerated report which can be stored both electronically and as a hard copy. These features are valuable for operators for four reasons: (1) Reduced time spent on pressure testing reduces the overall cost of drilling, illustrated in Figure 11. (2) The algorithm also reduces time spent with employees working in an environment with pressurized iron, meaning reduced HSE risk. (3) The report function and option for electronical storage increases traceability of the test

results, easing the handling of government audits and (4) the software removes the human subjectivity of the interpretation of a pass or fail.

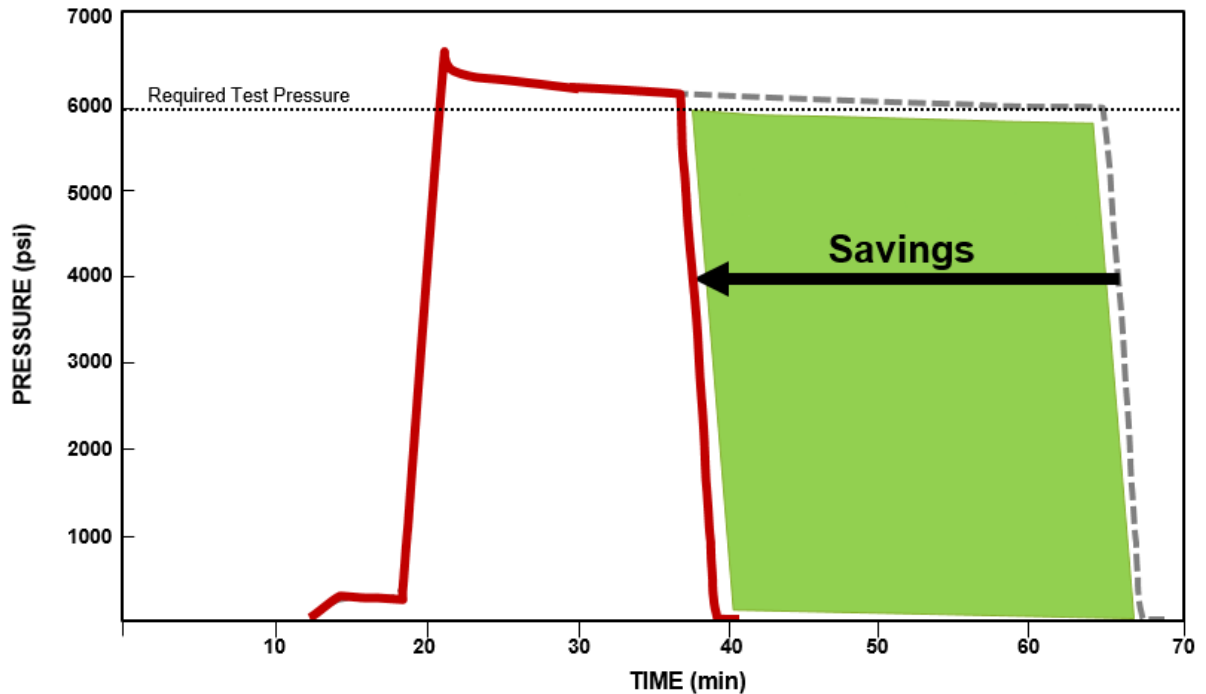


Figure 11: Time savings algorithm objective

4.3.2 Product commercialization

The project is organized with local champions in key geographic areas around the world who drives the process in their regions with the responsibility of testing the software in the field, engaging with customers and overall marketing of the software both in-house and externally.

The price strategy is determined by the local business development teams, but centrally supported by the organization group and vice president. Because the product is planned to be launched internationally from the start, understanding how the fact that the Company trades in dollars affect the pricing strategy in different locations is key.

4.3.3 Market segment value chain

In terms of BOP pressure testing, this means that three different market segment variations can be seen. One option is where the service company delivers the pressure testing software to the operator, which also rents the rig with BOP from a rig company as illustrated in Figure 12.

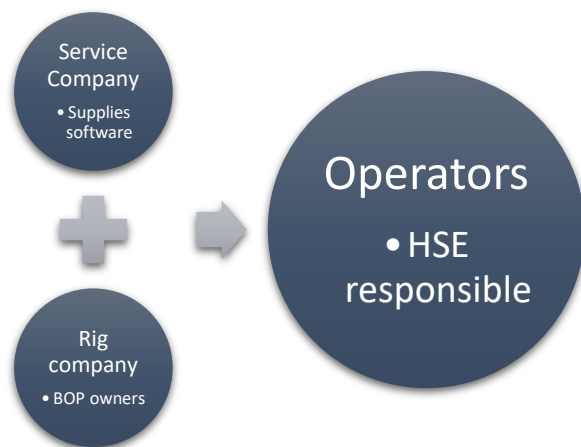


Figure 12: DBOP PTS value chain, option 1

Another option is that there is a third-party company that delivers the pressure testing software to the operator, and the service company only applies pressure. There are some variations within this option, because some third-party vendors offer only a separate computer, while others offer personnel to operate it as well. If no personnel are offered, the service company is ordered to operate the third-party computer. Figure 13 below, provides an overview of this option.

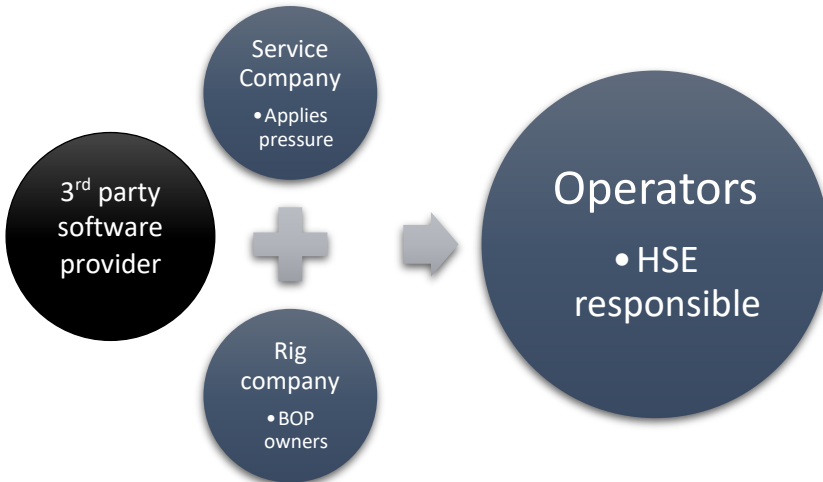


Figure 13: DBOP PTS value chain, option 2

The third option is where the pressure testing software is delivered by either the service company or a third-party vendor, but it is sold directly to the rig company, see Figure 14.



Figure 14: DBOP PTS value chain, option 3

4.3.4 Competition

In general, the competitive landscape for an oil and gas service company consist of three large, dominant companies but for this specific product, only one of the three companies plan to engage in providing this product, hence neither of the primary competitors have engaged in the competition. Table 2 presents an overview of the current market proportion and displays which rigs that has competitor's software's installed and rigs where the Company is incumbent, but there is no DBOP PTS installed.

Table 2: Incumbency and competitor market shares

Incumbent company	Rigs	Market share
ESSA		
No competition	11	73 %
Archer	3	20 %
IPT	1	7 %
Total	15	100 %
GOM		
No competition	7	23 %
IPT	13	42 %
OTC	10	32 %
Engenuity	1	3 %
Total	31	100 %
Latin America		
No competition	9	100 %
Asia Pacific		
No competition	4	80 %
DARTT	1	20 %
Total	5	100 %
Grand total	60	

The company is incumbent on 50% of the deep-water rigs, where no competitors have installed a DBOP PTS. The other 50% is held by 5 competitors where two of them is of significant size and the others have a very small market share. Current knowledge indicates that 3 of 6 players in this market can deliver a time savings algorithm, including the largest competitors to the company.

4.3.5 Legislation

The legislation differs vastly from country to country in strictness in terms of audits and regulations of BOP pressure testing. The Bureau of Safety and Environmental Enforcement (BSEE) which is the regulatory body looking over GOM operations follow up very strict laws describing how pressure testing should be performed. Changing the standard practice in this area needs approval from BSEE and is anticipated to be a cumbersome process.

On the other hand, regulations and legislation are less strict in other places in the world, like Norway. The Petroleum Safety Authority (PSA) is the supervising unit, responsible for following up on regulations regarding HSE in the Norwegian sector of the North Sea. Regulations in this area are less descriptive and strict with regards to pressure testing of BOP's and much of the responsibility is in the hands of the operators.

This difference in legislation poses as a challenge when faced with a pricing strategy decision, because both current status and future changes in legislation might alter the balance of competition, and hence need careful attention and monitoring from a Company perspective.

4.3.6 Porter's Five Forces

Porter's Five Forces have been chosen to look at the competitive environment around this case because it is a renowned strategic analysis tool. It is relevant for this case because, entering a new market with a new product is one of the forces described Porter's framework, threat of new entries. It is therefore interesting to look at how the forces impact the pricing strategy of a new product and how determinants described by other researchers (Forman, 1998; Fletcher & Russel-Jones, 1997; Jobber & Shipley, 2012), compare both in conflict to and in coherence with the five forces. This is further strengthened by Porter (2008) when he states that industry analysis is performed to understand the root causes of profitability in that industry and that the five forces directly affect prices.

The industry is consisting of several oil and gas producers which also performs exploration drilling. Whenever the well reaches a certain depth and enough casings have been set in to the wellbore to support the BOP, a BOP is placed on top of the well before drilling further.

Service companies deliver all services needed to construct, produce from and abandon wells, where the DBOP PTS is meant for aiding operators while constructing the well, by reducing operational time spent on location. In today's DBOP PT market there are a total of five

direct product competitors where four of them only sell one product, the DBOP PTS and the fifth is a medium sized service provider, mainly built around supplying personnel for operating rigs. The level of service provided by the different competitors varies from only providing a pass or fail confirmation, to providing a time savings algorithm as well.

In this context, the buyers are the operators, the suppliers are mainly labor suppliers and unions, competitors are other DBOP pressure testing service providers, substitutes are alternative ways to perform pressure testing and potentially other technologies that indirectly affects the need for this product, and potential entrants is ourselves globally and our competitors that might want to expand internationally. The scale used to evaluate the strength of each force is as follows: very weak, weak, medium, strong, very strong.

4.3.6.1 Rivalry among existing competitors

The market for DBOP PTS has been present since 2002 (Franklin, Vargo Jr., Sathuvalli, & Payne, 2004), but the last two years' rivalry has increased and revolved mainly around price because of tough market conditions, see "Figure 2". The current competitors that exist are companies called DARTT, Enginuity, IPT, OTC and Archer. Archer and DARTT compete internationally; the rest is based in the GOM. The main driver for rivalry in this market is the increased price sensitivity of the customers, caused by the need to reduce cost, and second the ability each company's software has to save operational time.

Halliburton plans to enter the market and gain the position of market share leader. This is deemed possible because it will be the only competitor having all necessary equipment and personnel onboard the rigs already, reducing our fixed cost carried by this service. There are few expected changes with regards to rivalry in the short term, but if all three competitors from the GOM decide to expand internationally, the overall rivalry will increase. The same can be said for the entry of the other two large service providers, however the probability of that is assumed to be low.

Overall the rivalry in GOM is evaluated to be strong, but it is the market where the amount of deep water rigs is highest. It would therefore favor a low-price strategy like e.g. penetration. Internationally, rivalry is evaluated to be weak, and therefore the chance of a successful high price strategy exists.

4.3.6.2 *Bargaining power of suppliers*

The product is an in-house developed software, which means no extra equipment or personnel is required to use the service, this leaves only labor and unions as the source of supplies. In general, unions have lost bargaining leverage over the last two years because the industry downturn has reduced the overall size of profit potential in the market.

The driver for labor suppliers is increasing their share of the profits generated by the services they participate in delivering, and labor strikes has been seen (e.g. the strike in October 2016 in Norway), but nonetheless the general acceptance for tough market conditions seems to have reduced the pursuit for higher salaries. Therefore, bargaining power of suppliers is evaluated to be very weak.

4.3.6.3 *Bargaining power of buyers*

The customer is mainly oil and gas operators, but another potential customer group is rig owners. The driver for this group to implement a more technological advanced method of performing pressure testing on their BOP's is to seem more attractive and differentiated in the rig market as well as stand forth as a company that is conscious and serious about HSE. Nonetheless, this group is evaluated as a secondary customer group because, despite compensation for faster drilling, the time savings algorithm is in direct competition with their main product; renting out rigs.

The product is an answer to the industry's call for efficiency and innovation. The Company's product provides a time savings algorithm, in contrast to some of the competitors, and therefore there is some level of product differentiation. This reduces the bargaining power of the customers; however, the industry downturn has led to a common understanding that every player must do their part to lower cost, raising customer price sensitivity and consequently resulting in higher bargaining power for the operators.

The software is displacing the analogue method and brings new value to the industry by saving rig time and it is expected that operators will want to utilize the software across all deep-water rigs. The operators are, however, not expected to gain any bargaining leverage by buying in large quantities because there are several operators in the market and none of them have a significant size compared to the others (Fortune, 2016). This is a challenging situation and is

definitely up for discussion because the general rivalry among service providers is high and all competitors seems to work towards winning any available work.

Overall, the customer price sensitivity, confirmed by statements like “We do not want nice-to-have products”, is expected to continue as long as the price for crude oils lingers around \$50, therefore bargaining power of buyers is evaluated to be strong internationally and in the GOM.

4.3.6.4 Threat of new entrants

The driver for entering this market is its attractiveness, caused by operators requesting new efficient solutions to reduce industry cost, which again signals WTP. This increases the threat of new entrants; however, the BOP is the last line of defense against a blow-out and ensuring that it works properly and holds pressure is an extremely important HSE measure. There is a risk tied to being involved in this verification, because the consequences of a blow-out are so large. This risk could scare of any potential companies evaluating to enter the DBOP PTS market.

On the other hand, the current market standard for verifying BOP integrity is by using analogue circular charts and pressure gauges. These charts have questionable accuracy and the recorded pressure can be difficult to read and interpret, and can be potentially falsified. Therefore, upgrading to a newer digital method including a time-saving algorithm is increasingly demanded by operators, hence increasing the threat of new entrants.

Another aspect that increases the threat of new entrants is the barriers to entry, where the increased focus on HSE from governments, especially in the GOM makes the barriers to entry high. The HSE focus is evaluated high in terms of restrictive government policy and is the only factor really standing out, impacting the GOM market significantly. An overview of the barriers to entry can be found in Figure 15 on the next page.

BARRIERS TO ENTRY

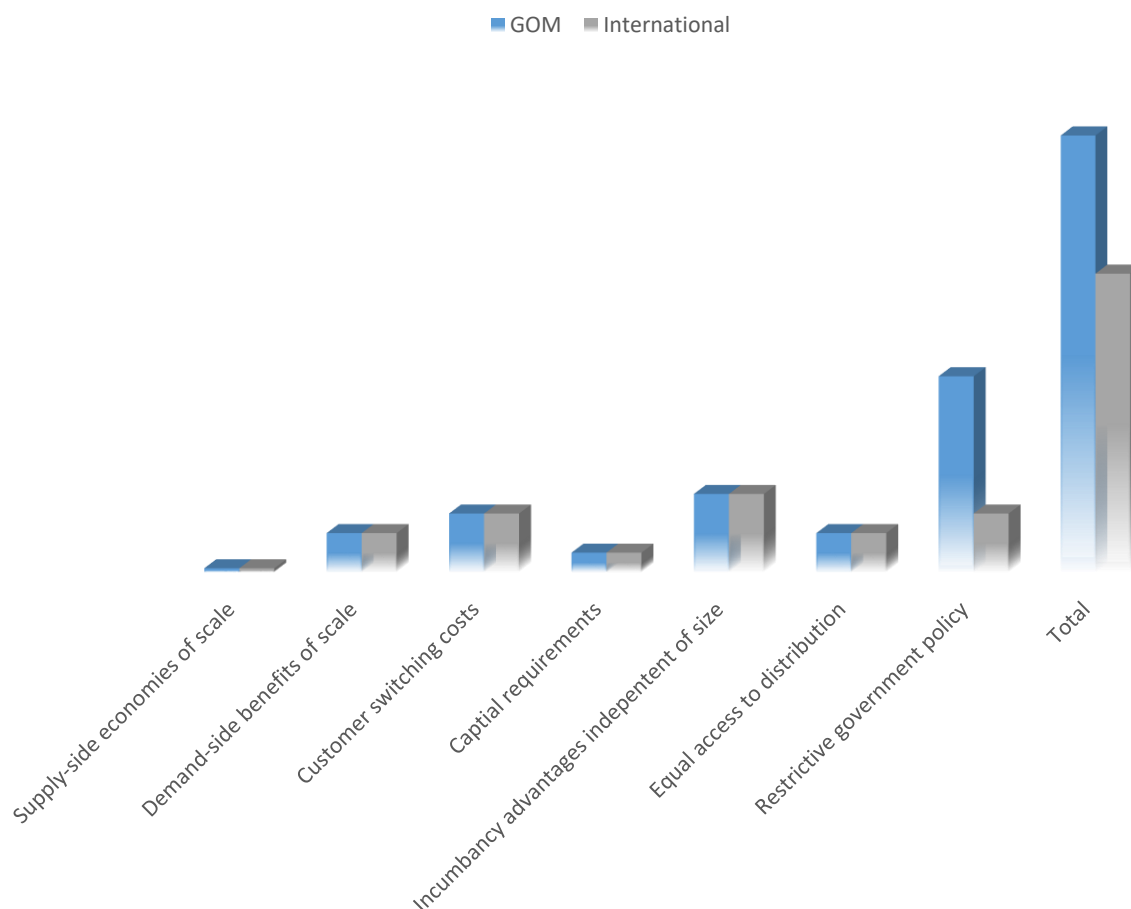


Figure 15: Barriers to entry, GOM versus international market

It is expected that HSE focus will increase because of the operators reduced investments in maintenance. BOP pressure testing is already highly regulated in the GOM, greatly affected by the result of the Deepwater Horizon blow-out, but seems to have less attention other places in the world.

Supply-side economies of scale are not relevant for this case because no parts are manufactured; the only extra supply needed is the software. Demand-side benefits of scale is somewhat relevant because there when one big service company suddenly enters a market where only small niche companies operate, it already has a large number of customers in the same industry in other business segments that is familiar with the Company.

Switching costs has an impact wherever the product is sold, but is significantly influenced by the actual price of the product. If the product has a high price and involves high fixed cost to implement, it increases the switching cost and hence the barrier to entry.

The capital requirement to compete is not very high in this case because it mostly revolves around designing software with the right capabilities, and this is proven by the fact that several small companies found this niche market before any of the big service companies.

Incumbency advantages is definitely present, because the service companies normally deliver other services to the rigs, adding one additional service has minimal effect on their fixed costs, whereas for a small company all the fixed costs have to be carried by that one service. This is true in this case, hence this heighten the barrier to entry.

The last aspect of barriers to entry is unequal access to distribution work channels. This aspect is not relevant for the same reason as for supply-side economies of scale. The material need for offering this software is minimal.

In sum, there are some probability of GOM competitors expanding to the international market exists and combined this makes the evaluation of threat of new entrants weak in the GOM, but medium in the international market.

4.3.6.5 Threat of substitute products or services

Substitutes can be direct or indirect (Porter, 2008), whereas in this case the BOP itself is a product that the BOP pressure testing software depend on. Any technology substituting the BOP would indirectly be a threat to the BOP pressure testing software, but the use of BOP's and BOP pressure testing is expected to continue because of its role as a main well bore barrier. The lack of alternative technology to serve the same purpose as the BOP reduces the threat of substitutes.

On the other hand, it is more likely that digital services will expand and become substitutes in other areas where pressure testing is performed.

In terms of indirect substitutes, one could argue that renewable energy sources, like sun and wind energy, is indirectly a substitute for this product (and basically all products targeting the oil and gas industry) because as the cost of alternative energy falls and becomes a more profitable market, more investments could shift from the oil and gas industry towards renewable energy, hence reducing the overall profit pool for oil and gas services. However, it is expected

that the oil and gas industry will grow the coming five years and therefore the threat of substitutes is evaluated to be weak.

4.3.6.6 Summary

The analysis indicates that there is a significant difference between the forces in the GOM and internationally. In the GOM, the forces of rivalry are strong, while in the international market it is weak. The opposite is seen for the threat of new entrants, where it is weak for the GOM market but medium for the international market. In both markets, however, the power of buyers is strong, the power of suppliers is very weak and the threat of substitutes is weak. Figure 16 shows how the forces are distributed in both markets.

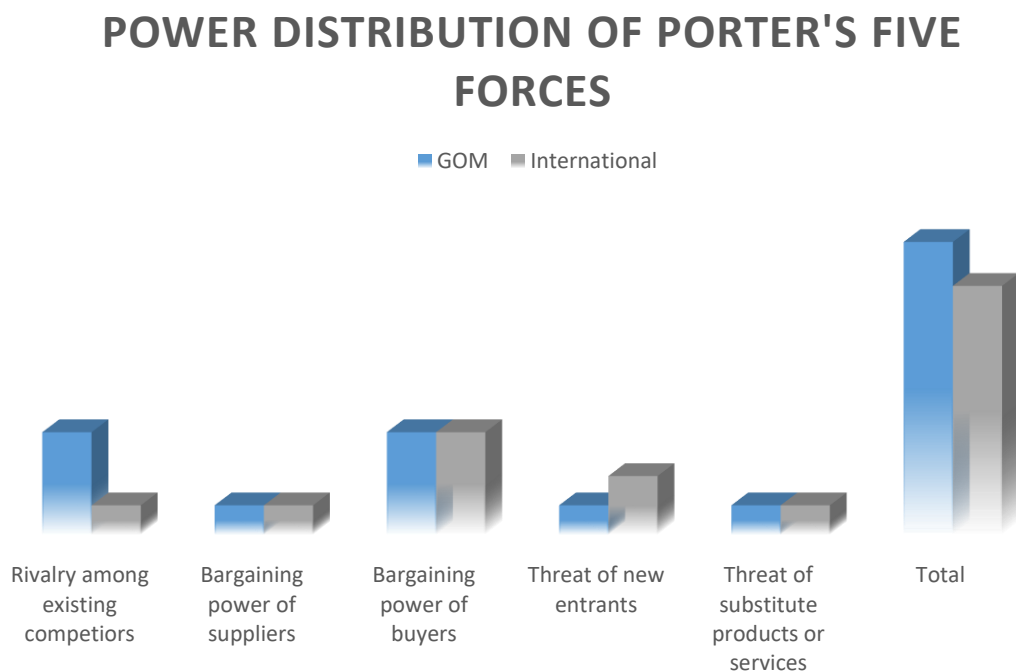


Figure 16: Power distribution of Porter's Five Forces in the GOM market

4.3.6.7 Implications for pricing strategy

The analysis shows that the company faces different degrees of competition based on where in the world the product is sold. Jobber and Shipley (2012) says that low competition would favor a high price strategy and that high competition would favor a low-price strategy,

which in this case relates to the GOM (high competition) and international market (low competition).

The situations in which the company wants to launch the product has characteristics from a both a competitive situation and a new-product situation, which indicates that a skimming and penetration price strategy is relevant in the introduction phase of the product.

In the introduction phase of the product, a skimming strategy seems to be the most favorable in the international market because of the lower degree of competitive forces, whereas a penetration strategy seems to be most favorable in the GOM because of higher competitive forces.

The Company's pricing objective is to gain high profits in the short term, so adopting a high price strategy is most desirable, maybe even despite the fact that competition will have a high probability of appearing in markets where profit margins are high (Fletcher & Russel-Jones, 1997). However, because of the higher barriers to entry in the GOM, the chances of a successful high price strategy through the life cycle of the product seems more likely than in the international market.

What is noteworthy is that the Company operates in dollars and therefore could be affected by the exchange rates if the pricing strategy involves another currency than dollars in other countries. Other similar factors that is important to remember, according to Foreman & Hunt (2005), is the impact of various tariff agreements and other types of government intervention. Some countries, like Norway, have strong unions where salaries and work relations hare heavily regulated, while other countries have less. The extent of the managerial prerogative in a country will determine how defensive or offensive a company can be with their pricing strategies.

4.3.7 VRIOLU-analysis

This thesis attempts to utilize the VRIOLU framework to determine how the resources tied to FastPass would impact the pricing strategy. Hinterhuber (2013) admits that his framework needs more empirical testing and suggests that it should be used in a B2B context, like in this thesis, although in a larger scale. Hinterhuber (2013) did not describe in detail how to use the extended model in practical terms. Therefore, the analysis is based on the assumption that his intended use of the two new factors is equal to how the former VRIO model was used. What was

interesting to see was that his description of how he used the model in his case study, actually started with the customer perspective, hence it should be named UVRIOL. Table 3 is an illustration of the author's interpretation of his model.

Table 3: Interpretation of the UVRIOL framework, based on (Hinterhuber & Liozu, 2013)

UVRIOL	Customer	Company	Company	Competition	Competition	Customer
	Unmet needs? (Enables company to address customer unmet needs)	Valuable? (Enables opportunity exploitation or threat mitigation)	Rare? (Currently not in perfect competition)	Imitable? (imperfectly imitable and non-substitutable)	Organized? (Organized to exploit)	Large? (Market volume can cover fixed costs)
Inaccurate attributes / properties	No					
Competitive disadvantage	Yes	No				
Competitive equality	Yes	Yes	No			
Temporary competitive advantage	Yes	Yes	Yes	No		
Unused competitive advantage	Yes	Yes	Yes	Yes	No	
Unable to realize potential	Yes	Yes	Yes	Yes	Yes	No
Long-term competitive advantage	Yes	Yes	Yes	Yes	Yes	Yes

Company focus to be aimed at these resources

4.3.7.1 Resource 1: Time savings algorithm

The time savings algorithm is a technological resource which has the potential to differentiate the Company from its competitors.

4.3.7.1.1 Unmet needs

Customers want to drill wells cheaper and faster to reduce their own costs, so that they can operate with positive profit margins when the oil price is hovering around \$50. The time savings algorithm enables that by reducing operational time spent holding pressure on pressure tests of BOP's.

Customers have not been interviewed, but observation indicates that customers perceive current cost and time related to drilling as high importance and they are not satisfied with the current level of these. Therefore, these are unmet needs according to Hinterhuber (2013).

4.3.7.1.2 Value

The opportunity in the current market is that customers want to reduce time and cost related to drilling wells. This feature allows us to help them with that. Two additional secondary benefits with the algorithm is that it increases HSE standards on the rig by reducing time spent having an environment with pressurized iron, and secondly it increases reliability of the test results by removing human subjectivity.

4.3.7.1.3 Rarity

Not all competitors can offer a time saving algorithm with their software.

4.3.7.1.4 Imitability

The algorithm is patented but other types of algorithms can be applied to serve the same purpose, and several already exist in the market.

4.3.7.1.5 Organization

Local champions involved early in the process, testing the alpha and beta version of the software. They are trained together and help training cementing crews when the product is released. The pricing of the software is centrally supported, but adapted to every contract and customer.

4.3.7.1.6 Large market

The oil and gas market is, despite the downturn, the biggest sector in energy. Therefore, the market is evaluated to be sufficiently large. The market for digital BOP testing is already present and customers are asking us to compete in this market in GOM. Internationally the market is not currently widespread and it will be one of the first jobs for local champions to increase the potential market for this product.

4.3.7.1.7 Total evaluation

Even though the algorithm is patented, this resource is evaluated to be a temporary competitive advantage.

4.3.7.2 Resource 2: *Electronical storage*

The option to store the pressure test results in a searchable electronical library is a technological resource which has the potential to differentiate the Company from its competitors.

4.3.7.2.1 Unmet needs

In some cases, a need may not exist until there is a solution able to fulfill it (Hinterhuber & Liozu, 2013). Customers in the GOM need to provide proof of passed BOP pressure tests to BSEE audits. Internationally it is less needed because the number of audits on BOP pressure tests is very limited.

4.3.7.2.2 Value

In the GOM, the regulatory body BSEE has strictly regulated BOP pressure testing. Audits are performed periodically and therefore operators value easy access to test data. The traceability enhancement of having standardized reports stored both electronically and as hard copies allows them to have access to this. The assumption is that customers globally would not pay for this feature.

4.3.7.2.3 Rarity

All competitors deliver a type of report and possibility of electronic storage of the test results.

4.3.7.2.4 Imitability

The function is easily imitated once the software is created.

4.3.7.2.5 Organization

The cementers are trained to produce and run the reports and therefore the organization is built to utilize this

4.3.7.2.6 *Large market*

This criterion has been evaluated equally as in resource 1.

4.3.7.2.7 *Total evaluation*

Resource evaluated to be in competitive equality.

4.3.7.3 ***Resource 3: Customer incumbency***

Being an incumbent at a customer, owning the cement unit which is rented out to the customer is a physical resource which has the potential to differentiate the Company from its competitors.

4.3.7.3.1 *Unmet needs*

The customer need is reduced cost, and being incumbent on a rig allows us to deliver the service with less fixed cost tied to it, hence enabling us to deliver the service cheaper than competition. Owning the cement unit on the majority of rigs also allows us to utilize this resource to meet the customer needs.

4.3.7.3.2 *Value*

The resource is valuable because it enables us to perform the pressure testing, and utilize the software.

4.3.7.3.3 *Rarity*

The market is largely dominated by three big service companies, where Halliburton cementing is the market share leader. Currently, Halliburton is the only one of these three that plans (assumption) to deliver this service and therefore it is evaluated as a rare resource in this market segment.

4.3.7.3.4 *Imitability*

None of our competitors on this product delivers other products and is therefore currently not able to become incumbents.

4.3.7.3.5 Organization

We are currently organized to exploit this resource because the organization is in general built to operate the cement unit for cement jobs.

4.3.7.3.6 Large market

This criterion has been evaluated equally as in resource 1.

4.3.7.3.7 Total evaluation

Compared to our current competition on this product, this resource is evaluated to be a temporary competitive advantage.

4.3.7.4 Summary

The product has three resources tied to it that yields some form of competitive advantage. Two of these provide a temporary competitive advantage, this is the time savings algorithm and the customer incumbency. These are only temporary because the competitors can obtain the same type of resources without a cost disadvantage that outweighs the benefits of entering the market. The third resource, electronic storage of test results, is in a state of competitive parity because all competitors that offer a software, can also offer this resource. An overview of the resources is shown in Figure 17.

UVRIOL	Customer	Company	Company	Competition	Competition	Customer	Resource evaluation
	Unmet needs? (Enables company to address customer unmet needs)	Valuable? (Enables opportunity exploitation or threat mitigation)	Rare? (Currently not in perfect competition)	Imitable? (imperfectly imitable and non-substitutable)	Organized? (Organized to exploit)	Large? (Market volume can cover fixed costs)	
Resource 1: Time savings algorithm	Yes	Yes	Yes	No	Yes	Yes	Temporary competitive advantage
Resource 2: Store results electronically	Yes	Yes	No	No	Yes	Yes	Competitive equality
Resource 3: Customer incumbency	Yes	Yes	Yes	No	Yes	Yes	Temporary competitive advantage

Figure 17: Summary of UVRIOL analysis

4.3.7.5 Implications for pricing strategy

The analysis presents how the Company is trying to enter a new market with a new product. This describes the “new product” situation, where skimming and penetration are the main strategies according to Noble & Gruca (1999), but because the Company has no resources tied to the product that yields a long-term competitive advantage, the favorable option is a high price strategy.

The Company has three resources connected to the product, and several pricing strategies are relevant to exploit the advantageous position these resources gives the Company. Bundling the product together with other products could be favorable to utilize the temporary competitive advantage of being incumbent with several customers.

A low-price supplier strategy could be successful as the Company is the only large service company delivering this service, and therefore this strategy could result in displacing the competition from the market. Another reason why this strategy could be successful is because the Company operates internationally and has managers with a strong external focus on determinants, which according to Foreman & Hunt (2005) is a necessity to be able to implement a low-price strategy successfully.

A complementary product strategy could also be successful, because the Company could exploit the same benefit of being incumbent and also having the cost advantage by selling the pressure testing service as a complementary product to the cement unit or vice versa.

Parity pricing seems like the most sustainable strategy if the Company is unsuccessful in displacing competition in the GOM market, while a leader pricing would be favorable if the Company becomes the market leader.

Several of the pricing strategies from Hinterhuber and Liozu’s (2014) integrative pricing roadmap could be successful. The Company could implement a good-better-best market segmentation strategy and activate/deactivate functions in the software based on what the customer requested. A strategy involving pricing to drive market expansion could be implemented by targeting all rigs, instead of just deep water rigs or pursuing rig companies as potential customers in addition to operators. A price tactic to enable the success of this strategy could be individualized pricing, where each customer and rig would need to be monitored closely to adjust the price level specifically for each rig.

All of these price strategies has the potential to be successful as long as enough resources are invested within the Company organization to maintain and develop the strategy. However, the factor that needs most attention is customer value. The operators in today's oil and gas industry are highly aware of their financials, therefore, any pricing strategy evaluated needs to have the customer value element in it, thus the pricing strategy with the highest probability to succeed, is the customer-value pricing strategy. This strategy is combined with an increased investment in pricing functions within the organization and elements from other more innovative options might have the highest potential of all to succeed.

4.4 Validity

A valid study is described as having properly collected and interpreted data with a conclusion that accurately reflect and represent the real world (Yin, 2014). Validity can be divided in to external, construct and internal validity.

External validity is about how generalizable the results of the study are, and because this study only consists of one case, and the fact that no customers or competitors were interviewed, generalization is not possible. According to Boyce (2006) data collected and analyzed from in-depth interviews is not generalizable because small samples are chosen and random sampling methods are not used. Hence, the conclusion of this thesis is aimed at giving the case Company guidelines on how to price similar new products in the future. However, means have been taken to ensure the highest achievable level of external validity. The mean implemented to ensure this, was to conduct a thorough literature review.

Sending interviews questions to the interviewees prior to the interview and sending the interview summary to them after the interview for the possibility of adding additional comments was performed to ensure construct validity.

Internal validity means how well the results match the real world, which has been ensured by interviewing employees in positions that take pricing decisions both in the department in general and within the project group. The degree of bias is slightly reduced because half of the interviewees are outside the project group, but the fact that no customers or competitors have been interviewed is a weakness in this thesis. Also, two analysis tools have been utilized to ensure the highest possible chance of finding the key points that are crucial for developing a pricing strategy.

The fact that only one researcher was present during the interviews is a potential weakness because the author is also a stakeholder in the project and is therefore potentially biased. To mitigate these weaknesses, several researchers should have been present and interpreted the interview results and both competitors and customers should have been interviewed.

4.5 Reliability

Reliable data minimize errors and biases. As described under “Validity”, the potential of bias affecting everything from the data collection to the analysis and conclusion is therefore potentially weakened. The research is heavily reliant on qualitative data, which is a weakness because according to theory about data triangulation, reliable data is confirmed from several sources. Data based mostly on qualitative data collection methods can therefore be considered to be not entirely reliable.

Writing the thesis so that other researchers, i.e. the auditor of the thesis, would be capable of reproducing the results is a good guideline for case studies (Yin, 2014), but this guideline is challenging to adhere to when performing a qualitative study. This is because the reliability of the results is built on chosen data collection methods, and since these are all collected through biased people, arriving at the same results seems unlikely. Nevertheless, the author has made efforts to maximize the reliability and reproducibility of the thesis by referencing the sources of information, utilizing renowned analysis methods and adding the interview guide in the appendix, see “Appendix A: Interview guide”.

5 Results and discussion

This chapter presents an overview of the main findings as well as a discussion of their relation to each other and the problem statements.

Several influencing relationships were uncovered during the analysis of the collected data, however there seems to be an imbalance in the amount of data and findings related to the three areas of interest (company, competitor and customer) when a pricing strategy is to be created. The amount of data about the Company and product is deemed sufficient, but found lacking about customers and international competition.

In addition to this, the literature review has revealed the need for extensive amounts of detailed data about each unique customer, competitor and country to be able to formulate the optimal pricing strategy, a need which has not been fulfilled through the other methods of data collection and data analysis.

5.1 Literature review

One note the author made during the literature review was that, though there were few studies about pricing strategy best practice; the few that were found had different views on how to set optimal prices. For instance, Ingenbleek et al. (2013) presents their conclusion on which conditions that needs to be examined in order to decide upon the best pricing practice when launching a new product. Their conclusion was that a company should define its objective and study their products advantages and the competitive intensity. They did not include any thoughts on the customer's relevance to the best practices, which were interesting because this was highlighted in several other papers (Park, MacLachlan, & Love, 2011; Hinterhuber & Liozu, 2013) as another key area to investigate. Customer's WTP and perceived product value were brought forth as important factors in this regard.

For a company to enable itself to adopt an optimal pricing strategy, it needs to invest in organizing itself for that purpose and through this re-organization decide on a pricing policy to implement. It needs to educate its employees, both technical and other personnel, in economics and the relationship between the pricing strategy, company objectives and profitability, customer's perception, competitors positioning and all the other factors found in "Theory: Literature Review". Following a pricing framework like the one Hinterhuber (2004) developed is a great start on this process. Managers needs to be up to date on the latest research in pricing

strategy and daily support the pricing functions within the organization by constantly following up on the set pricing policies, but also focus on acquiring a realistic perspective about the customers and competition by performing the necessary analysis' regularly to avoid basing decisions on weak assumptions or falling into Hinterhuber's (2013) four fatal traps.

The traditional pricing strategies presented by Noble and Gruca in 1999, are successful in different situations depending on which competitive forces that dominate, how price sensitive the customers are and the internal economic status and objectives of the Company. For this particular study, the product life cycle is presumed to be short and the differentiation between competing products are low, therefore one could argue that the customer perception of product value and company economic status is relatively constant. Hence, the price ceiling is mostly affected by the competitor's prices and company pricing objective and therefore being the limiting factor to the choice of pricing strategy. This is illustrated in Figure 18.

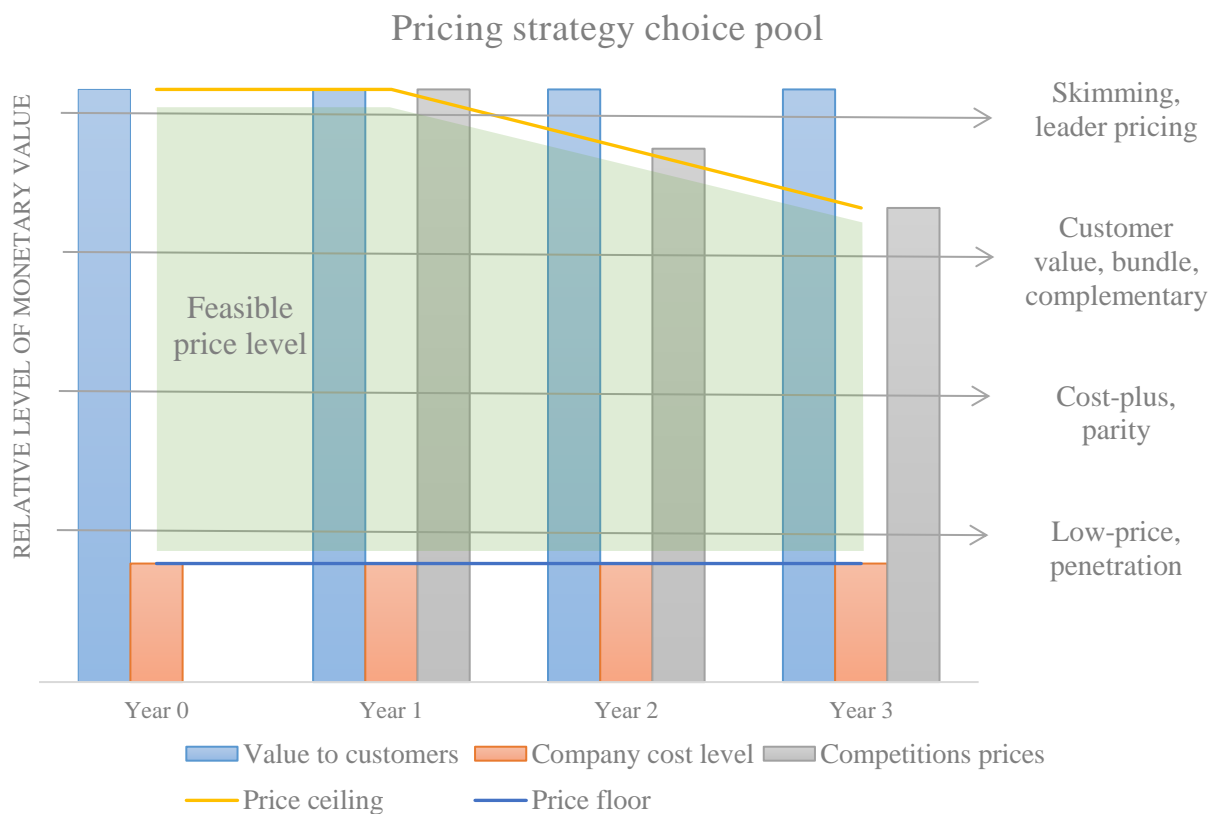


Figure 18: Pricing strategy choice pool

According to Hinterhuber & Liozu (2014) the company should have a dedicated pricing position, e.g. a chief value officer, to perform the analyses and follow up on the pricing strategies within the company. The person in this position needs to have sufficient experience both with pricing and preferably international pricing, should the company be operating in such markets. Their suggestions to innovative pricing strategies and tactics are also interesting, however, the author was not able to justify why one of the innovative strategies would be more optimal for this product compared to the traditional strategies, because the level of details needed about each unique customer is larger than what this thesis has obtained.

When conducting the analysis on the three aspects of a competitive situation; the company, the customers and the competition, the dedicated pricing function needs to understand the relationship between the pricing strategy determinants, company product situation and the various pricing models and tactics that could be applicable for that product specifically.

5.2 In-depth interviews

The interviews led to the finding of 7 across four different headings: company, customers, and pricing strategy. The Company had significant knowledge about the competition in the GOM, but less about the international competition. Competition were expected to increase rapidly, but mostly because of a pull from the customers rather than a push from the competitors, leading to an expected short life time for the product, three years to be exact.

The customers in this market were found to hold a strong position with highly competent procurement teams, and to value efficiency increasing products so that they can maximize their time spent on drilling and minimize time spent on non-productive activities.

The Company did not express a high focus on utilizing pricing strategy best practice, despite having performed analysis of both external and internal environment and concluded on a strategy. Rather, the Company revealed having a need to increase its knowledge about pricing strategy best practice and improve internal processes to enhance pricing capabilities of new products.

The data from the interviews should be weighed carefully before drawing any conclusions. The interviews were conducted without a recorder and the questions were in hindsight evaluated to be insufficiently specific and the amount of probing performed may have

varied. This leads to the question of data quality and is therefore a weakness. The data collected from the interviews and the analysis based on this data should be evaluated accordingly.

To enhance the data quality the interviews should have been conducted utilizing a recorder during the interviews and the question focus should have been more related to the topics in the other analysis' rather than open questions about pricing strategy in general.

5.3 Case study

The VRIOLU analysis revealed two resources with significant importance to the product's differentiation and competitive advantage. These were the customer incumbency and the time savings algorithm. When considering the Company's pricing objective which is to achieve high profits in the short term, the fact that the two resources only yields a temporary competitive advantage and the expected life time of the product is three years, a high price strategy would be recommended.

The Porter's Five Forces analysis found that the forces of competition varies from the GOM to the international market, where rivalry among existing competitors and threat of new entrants were the two determining forces resulting in this difference.

Based on the Company's objective to gain high profits in the short term, obtaining a market leader position quickly will be key. Gaining a market leader position allows the Company to transition to a market leader pricing strategy once the competition increases internationally.

The pricing strategy deemed the most promising is a skimming/customer value hybrid strategy for the international market and a penetration/customer value hybrid strategy for the GOM market, where the strategy is highly embedded into the organization of the Company through investments in dedicated pricing function(s). This is because the international market has not been targeted by our largest competitor, which currently only operates in the GOM. Therefore, a significant opportunity to become the product introducing company exists.

However, because of the difference between customers and competition in different markets, discussing feasible tactics and other more detailed actions to accomplish this is challenging. A pricing strategy should be tailored to each customer or at least each customer segment to be successful and to be able to tailor the strategies to each customer, individual in-depth knowledge about them is necessary and such knowledge has not been obtained through the collection and analysis of data in this thesis.

For the product discussed in this thesis, the optimal pricing strategy is defined as the one that yields the highest profits over the life time of the product. This means that the optimal strategy changes when the degree of competition changes because you always want to use the highest possible price as long as it does not affect sales volume. If no competition exists, then the price roof for this product would be determined by the lowest of the customer's (1) WTP and (2) ability to pay, which is highly correlated to the customer's perceived product value. When competition is introduced, the competitor's prices quickly becomes the new price roof unless the customers are price insensitive, the product is highly differentiated or the market is distinctively segmented. Therefore, when competition increases, the pool of pricing strategy options gradually shrinks. What is especially important to note, is that competition for this product will never be in a state of perfect competition, but from the moment competition is introduced, perfect competition will be the asymptote to the degree of competition over the lifetime of the product, see Figure 19.

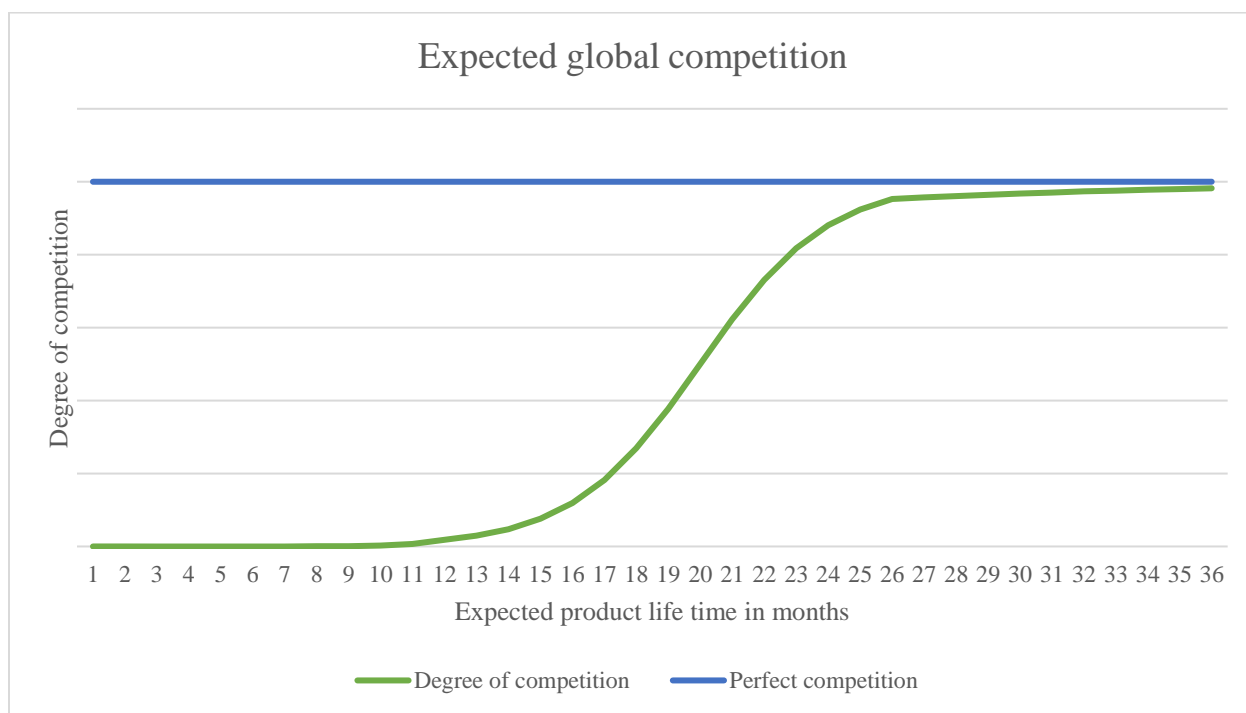


Figure 19: Expected degree of competition over the product life cycle

Porter (2008) recommends that a successful strategy involves positioning your company where the forces of competition are weakest. In this case, it is the international market, meaning

the Company should focus on achieving the largest portion of the profits from the product from this market.

He also recommends exploiting the changes in the forces. For this case, it could mean reacting to a sudden market upswing. The optimal pricing strategy would change in the event of a large overall market profitability increase.

Lastly, he recommends putting effort into reshaping the forces in your favor. This could mean working with governmental bodies to heighten the requirements for selling a product like the product in this case and thereby increasing the barriers to entry and lowering the threat of new entrants. This would allow the Company to utilize a high price strategy, because there would be less suppliers of the service the buyers leverage and power therefore lower.

6 Conclusion

The purpose of this thesis was to (1) investigate and evaluate if an optimal pricing strategy could be created and implemented for the global release and lifetime of a new product in the oil and gas industry, and to (2) evaluate how the degree of competition affected the choice of a pricing strategy. The analysis led to several interesting findings and the conclusion based on these findings will be presented in this chapter.

For problem statement 1, the conclusion is that it is not possible, nor desirable to create and implement one single pricing strategy for the product. Several options for a pricing strategy for the product have been discussed, but the optimal pricing strategy is dependent on the unique local environment where the product is sold. The assumption that pricing strategy could be universally successful for all markets and customers simultaneously, and that a pricing strategy is a static phenomenon is incorrect. A pricing strategy should be based on in-depth knowledge about the Company's local capabilities, competition in the specific area and customers in the exact market it is being released and sold. At least two (customers and competition) of these three aspects vary substantially depending on the market conditions, which changes over time.

When analyzing how competition influences the choice of strategy, i.e. problem statement 2, the findings leads to the conclusion that in this case, competition forges the basis for the optimal strategy. The product differentiation is low between the competitors, leading to a close to equal customer value in the competing products. Therefore, when launching this new software in the oil and gas industry with an expected life time of three years, created to yield significant value to the customers in form of reduced operational time spent on pressure testing, the other two areas analyzed becomes less significant. Without competition, the price ceiling becomes what the customer's sees of value in the product. The value to the customers as described earlier is more or less equal and static in the short term as well as the Company's internal cost structure, and therefore the competition dictates the final choice of pricing strategy.

6.1 Limitations of the study

The study did not involve any interviews of customers or competitors. It did not compare time savings achieved between the different customer's products and did not evaluate any effects the sale of this product could have for the sale of other products offered by the Company. Efforts towards calculating customers WTP or the product's TCO has not been taken.

6.2 Recommendations for further research

To further enhance the understanding of a pricing strategy's role and influence on a Company's objectives a quantitative study, based on the findings in this thesis would be interesting. Such a study would yield exact numbers that could more precisely recommend which price levels the Company should aim towards within the chosen price strategy.

Also, conducting interviews of customers and preferably competitors, to increase the quality and size of the knowledge foundation, e.g. acquiring the actual WTP and price sensitivity for each customer or examining what triggers a strategy switch, would be beneficial. This would enable the researcher to compare innovative pricing strategies with the traditional ones and obtain a deeper understanding of what the optimal pricing strategy could be

Finally, utilizing the analysis tools listed below would be interesting to see if the conclusion could come any closer to the optimal pricing strategy:

1. The price water-fall
2. The price-value map
3. Turnover build-up
4. Terms and condition analyzer
5. The pricing explorer
6. Price-volume scatter plot

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8 Appendix

8.1 Appendix A: Interview guide

Interview purpose

To find out how the project group weigh the importance of pricing strategy theory and how it utilizes pricing strategy to make the commercialization of the new product as successful as possible. The information from the interviews will be used in strategical analysis which then leads to a conclusion.

Important information from the interviews will be how the project group sees market and industry specific information in relation to current theory and pricing strategy “best practice”.

The thesis problem statement is:

1. What is the optimal pricing strategy for a DBOP PTS in the international oil and gas industry?
2. Does the degree of competition affect pricing strategy of the software, and if so, in what way?

Method

The interviewee will receive the questions before the interview and the duration of the interview is planned to be around one hour. It will be performed by telephone without taping the conversation. The interviewee will receive the summary afterwards and have the opportunity to comment and add information.

Consent and confidentiality

All responses will be kept confidential, meaning only the interviewer will have the shared information and the thesis will not include any information that identify the interviewee. Does the interviewee agree to perform the interview under these terms?

Questions

1. Which determinants are the most important when choosing a pricing strategy for a product like FastPass? Please list them.
2. Which pricing methods and tactics has been evaluated for this project? Please list them.

3. How would you describe the situation (Oil downturn, customers only focus on price, etc.) of the project and how does it affect pricing strategy?
4. Does the project group use any form of framework to decide the pricing strategy?
 - a. If yes, do you see any limitations with this framework?
5. How would you say being a business-to-business company impacts our pricing strategies?
6. How do you see future tenders and contracts affecting our pricing strategy during the life cycle of the project?
7. How much emphasis is put on using an optimal pricing strategy?
 - a. Do we actively seek the latest in pricing strategy theory or do we tend to use what we used before?
8. How does the company weigh the importance of the right pricing strategy versus product innovation?
9. How would you say the company drives the focus on pricing strategy through the organization?
 - a. How would you say this has impacted the decision for the pricing of FastPass?
10. Has the past two years' downturn affected the organization's view on pricing strategy?

8.2 Appendix B: Pricing strategy topic overview

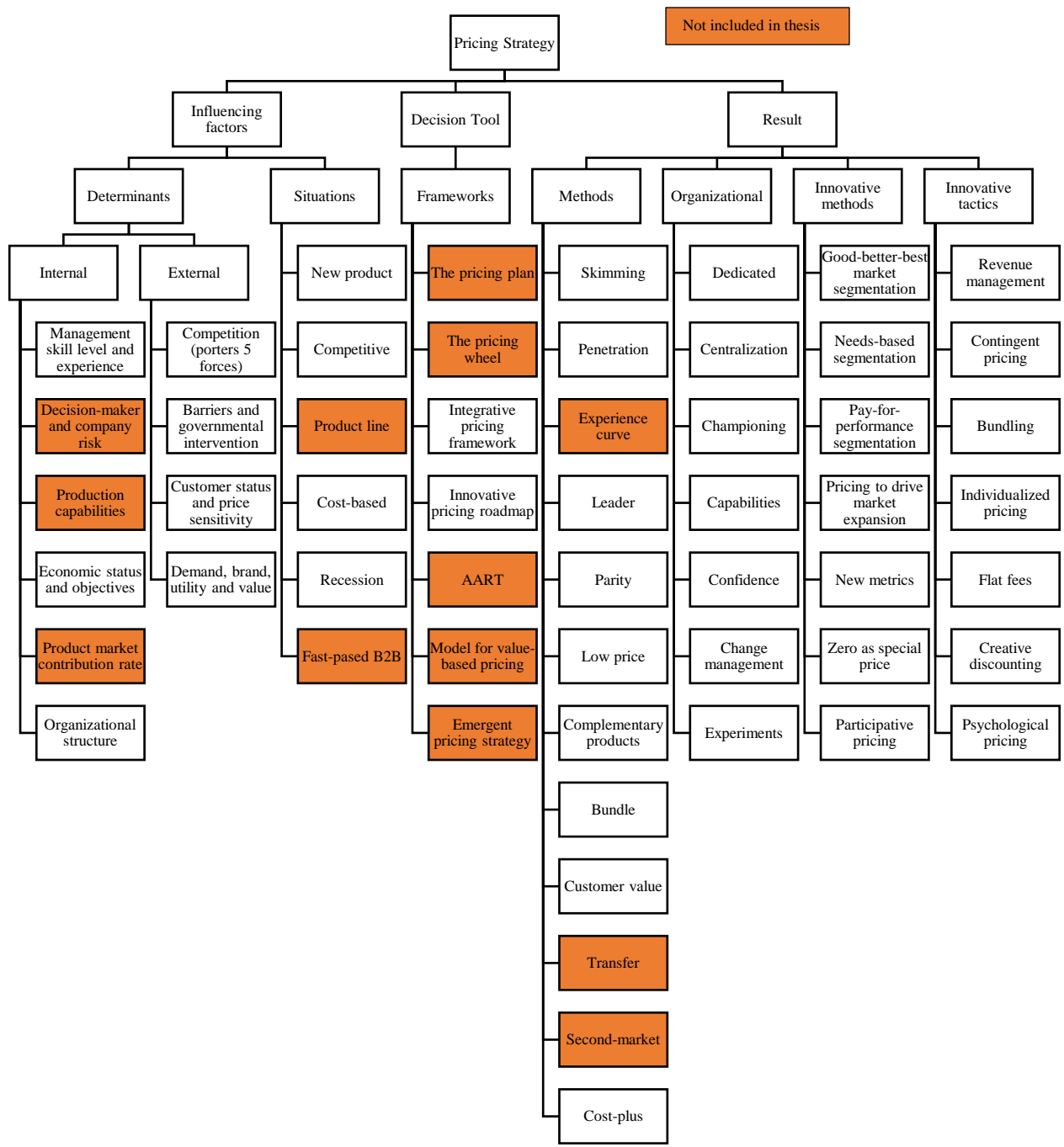


Figure 20: Pricing strategy topic overview