UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Master Degree Project in Knowledge-Based Entrepreneurship

Deciding on the Price of a Product/Service in a Start-up Setting

Coping with diverse objectives, market dynamics and uncertainty

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Abstract

Despite a recent surge of interest, the subject of pricing in general has received little academic investigation (Hinterhuber, 2004) and the research is particularly lacking in the start-up and new venture creation setting. Pricing has though undeniable a large impact on the diffusion rate of a new product/service and on what type of customer segments one wants to target, subsequently effecting financial results the success of the start-up. The aim of this study was to identify "how" and "why" certain pricing objectives and approaches are chosen and how the novelty of both the company and product/service and uncertainty affect the criteria companies use in determining their pricing. Though countless research has been done on pricing and how established companies conduct their pricing schemes, the start-ups did not seem to be able to lean on theoretical or empirical examples of how to formalize their pricing decisions. The start-ups seemed to approach pricing by disassociating themselves from conventional pricing theories and consequently decreasing the focus on pricing objectives explained predominantly to the lack of information. For the most part the companies explained their approach to pricing in somewhat a diverse manner, emphasising the importance of contradicting factors. The companies did though acknowledge the extreme importance of defining and analysing the true value, interpreted in financial terms, their product brought to their potential customer (value-based pricing), a method where the importance of competitor prices is minimized. However growth was an apparent goal for the companies and that other objectives emerged, as the fixation of attracting more information on what their competitors were pricing their products/services, leading to an obvious customer- and share-driven approach. It was evident that the advice given to the companies leaned to the application of a value-based approach to pricing. Nonetheless, when start-up companies increased their interaction with potential customers the pressure of making a sale emerged, shifting the focus to customer and share driven approaches.

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1 Introduction

1.1 Background

Formulating a pricing strategy[1] and/or the revenue model[2] is a critical part of commercializing new products and services. The revenue model and pricing strategy a company chooses will impact a wide variety of aspects to the business, from marketing decisions to customer service decisions, and at the end of the day the viability of the overall business model. This means that pricing has an inevitable linkage to the business model of the company and deciding on a pricing strategy is a fundamental question for any company. The business model of a company describes the rationale of how an organization creates, delivers, and captures value (Osterwalder & Pigneur, 2010) and the attention on business modelling has grown considerably in recent years. Business models and business modelling are of course important to older and more established companies but the notion of business modelling for start-ups and entrepreneurs has attracted the most increasing attention from academics and practitioners alike (Desyllas & Sako, 2012). Business model literature has elaborated on the mechanisms for value creation and delivery when new business models are developed and implemented, however the subject of pricing in particular has received little academic investigation despite increasing interest (Hinterhuber, 2004). For example Nagle and Holden (1995) portrayed pricing as the most neglected element of the infamous marketing mix (4 P's) and a empirical study revealed that less than 2% of all articles published in major marketing journals cover the subject of pricing (Hinterhuber, 2003). Being so important for a start-up and being such a fundamental question, why do pricing receive so little attention in the entrepreneurial and start-up setting? This thesis is subsequently prompted from this lack of literature and will look into a group of Swedish start-up companies and their pricing decision process.

The aim of this thesis will not be to analyse which pricing strategy is optimal for a start-up company, where many strategies can give adequate results. The thesis will identify "how" and "why" certain pricing objectives are chosen and how the novelty of both the company and product/service and uncertainty affect the criteria companies use in determining the price of their product. Pricing has undeniable a large impact on financial results, yet more importantly pricing can have a huge effect on the diffusion rate of a new product/service and on what type of customer segments one wants to target. It is therefore reasonable to assume that the evolvement of pricing strategies and objectives in start-ups is especially important for their growth and success.

[1] A pricing strategy is the scheme of determining what a company will receive in exchange for its products
[2] A revenue model is a system designed to calculate the projected future revenues.

1.2 Research Questions

This thesis attempts to answer and inform the literature as to the following research questions:

1) What are the approaches Swedish start-ups use in dealing with uncertainty and novelty in deciding their pricing objectives and strategy?
2) How do pricing objectives and strategies evolve in these start-ups before the launch of their product/service?
3) What is the organizational process of implementing a pricing strategy and what actors lead and influence the decisions made?

The research questions are chosen to develop a broader understanding of how start-ups[3] deal with pricing issues in relations to their uncertain environment and team dynamics; a field lacking in empirical and theoretical research. This thesis draws its attention to the characteristics of start-up companies and notably their internal decision making on pricing strategies independent of which industry the companies work in and what product/service they sell. There are numerous pricing strategies that companies can choose from and which strategy will be successful is dependent on multiple factors. Just like other aspects of new organizations, coping with uncertainty plays the biggest role of which pricing strategy is implemented. Decision-making on the organizational as well as the entrepreneurial level is a subject that has been grounds for a great deal of debate, not least the ability of firms to make decisions when faced with uncertainty. While questioning how start-ups make decisions when faced with uncertainty in general can presents broad and fruitful possibilities for research, the research questions in this study are designed to look specifically at pricing and how uncertainty and pricing of a start-up company is dealt with.

2 Theory

Most people's brains are wired to seek certainty and avoid uncertainty and yet the nature of entrepreneurship appears to go against this common behaviour; *"Entrepreneurs overcome uncertainty because they are certain about their idea"* (Peia, 2012). It is though by far a simple task to commercialize innovate ideas, however certain the entrepreneur may be. One uncertainty start-ups need to deal with is identifying what customers in the potential market are willing to pay for the product/service. This section explains different pricing objectives start-ups face to chose from with the eventual purpose of understanding how novelty and uncertainty affects each one and the decisions made in regards to selecting an objective. Hence this section also examines general

[3] Start-ups or new venture/organization/firm/company are interchangable terms and have the same meaning.

theoretical backgrounds on conditions and characterises regarding uncertainty that start-ups and entrepreneurs need to deal with, including the liability of newness, contingency theory and decision-making in ambiguous settings and how these concepts contribute to pricing decision making.

2.1 Pricing objectives

Companies that grow profitable in changing markets often need to break old rules and create new pricing models (Nagle, Hogan, & Zale, 2011). This can be seen in companies like Netflix, Apple, or Ryanair. These companies know that status quo thinking is not optional and that clear objectives are a necessity. Nevertheless, most companies still make pricing decisions in reaction to change rather than anticipating it (Nagle, Hogan, & Zale, 2011).

This section will describe pricing objectives (also referred as paradigms or approaches) that companies are faced with when devising their pricing strategies. The reason for this distinction is to see if there is a link between pricing objectives and how the companies deal with their novelty characteristics and uncertain environment. This study makes a clear definition difference between pricing objectives and pricing strategies. A pricing objective is a macro-level subject, describing the general aim of the companies pricing decisions and is simply the over-all goal that all pricing decision making has to reflect upon and the goal ultimately has to align with broader objectives of the firm such as marketing, production and finance. Many companies, whether large established companies or start-ups, use four traditional pricing objectives in deciding their pricing strategy. These objectives are explained here below and their reasoning. Pricing strategies are consequently more on a micro-level as they describe ways to implement pricing objectives.

2.1.1 Cost-Plus Pricing

This is the most common and most frequently used method of deciding a price on what a product/service should carry and is characterized by financial caution (Nagle, Hogan, & Zale, 2011). Basically it involves of pricing every product or service to yield a fair return over all costs, fully and fairly allocated. In theory, it is a simple guide to profitability; in practice, it is a designed for average financial results (*ibid*). This paradigm has its basis in the industrial production setting were the cost of a product was fully known and the price was therefore decided on the rate of return (IRR) the company deemed fit. However today, in most industries, it is not possible to determine a product's unit cost before determining its price, the main reason being that unit costs change considerably with volume. So, in theory, cost-plus pricing can actually lead to over-pricing in weak markets and under-pricing in strong ones; exactly the opposite direction of a sensible scheme.

2.1.2 Customer-Driven Pricing

The cost-plus pricing objective is an approach entirely based on financial scrutiny. However the customer-driven pricing approach can be described as taking the authority away from "finance" and moving it to "sales and production" to make the pricing reflect market conditions rather than internal company objectives. This entails deciding the price based on what the customer is willing to pay, rather than what the product is really worth (Nagle, Hogan, & Zale, 2011). This can be especially dangerous for start-ups with completely new and innovative products where potential customers are completely ignorant and lack experience of the products value and the company's brand. If these companies ask potential customers of what they are willing to pay for the product/service they run the risk of seriously under-pricing the product (*ibid*).

2.1.3 Share-Driven Pricing

Many start-ups are fixated on gaining market share, often a prerequisite for substantial growth, and believe that gaining a larger chunk of the market will lead to more profitability. In this objective the main way to gain more market share is to constantly assess competitor prices and strategically position the pricing in relation to these competitors. Share-Driven pricing is therefore purely dictated by competitive conditions and a motivated to achieve sales objectives. Although price-cutting is most likely the quickest and most effective way to achieve sales objectives, it is most often a poor decision financially and only yields short-term results at the expense of permanently lower margins. The use of this pricing approach is most common when products/services are homogenous and price sensitive (*ibid*).

2.1.4 Value-Based Pricing

The willingness of a customer to pay for a product/service is dependent upon the value the customers place into that certain product/service which hence depends on hundreds of different aspects of psyche and situation. Essentially, value based pricing cuts through the red tape of this scenario to determine the customer's true willingness to pay for a particular product/service (Nagle, Hogan, & Zale, 2011). The term "value" commonly refers to the overall satisfaction that a customer receives from using a product or service offering (ibid). This value is often called "economic value" and value-based pricing is based on understanding the sources of economic value of a product to different clusters of customers. A profound understanding of the sources of value for customers helps to avoid one common error in pricing decision: pricing truly innovative products far too low (Hinterhuber, 2003). The concept of value-based pricing can be easy to understand, but however in reality it can be very difficult to calculate and requires a lot of research, as compared to cost-plus and customer-driven pricing. This can partially explain why this pricing approach may not be used so extensively, whereas factors can be very intangible (psychological) and difficult to form into monetary value.

2.1.5 Trade-offs and problems

Strategic pricing requires making informed trade-offs between price and volume in order to maximize profits. Nagle, Hogan & Zale (2011) explain that these trade-offs come in two forms. The first trade-off involves the willingness to lower prices to exploit market opportunities to drive sales. Companies using a cost-plus approach are often reluctant to exploit these opportunities because they reduce the average contribution margin (income minus variable costs) across the product line, giving the appearance that it is underperforming relative to other products. But if the opportunity for incremental volume is large and well managed, a lower contribution margin can actually drive a higher total profit. The second trade-off involves the willingness to give up volume by raising prices. Competitor- and customer-oriented companies find it very difficult to hold the line on price increases in the face of a losing customers or reducing sales.

In reality very few companies base their full pricing strategy on one of these objectives. The main problem with this however is that pricing decisions will lead to conflict and may drive companies into making unprofitable decisions (Nagle, Hogan, & Zale, 2011). However it seems that unconsciously one paradigm seems to overtake the pricing strategy decision making (*ibid*). There can be many reasons why these paradigms become dominant in the pricing assessment; board and management education/experience, industry standards, distribution of authority, etc. It has been noticed that managers generally do not seem to believe in their ability to significantly influence their industry's pricing structure, affecting their own approaches, e.g. pricing objectives. A common managerial lament is the following: *"In our industry, prices are mostly dictated by the market. Therefore, we focus on costs and volumes"* (Hinterhuber, 2003, p. 766). Empirical research by McKinsey & Company[4] has in addition shown that very few companies (less than 15%) do any systematic research on pricing, e.g. survey research, price elasticity research, or detailed competitor analysis (Clancy & Shulman, 1993).

Often the root of the problem for start-ups is that one key indicator, namely growth, becomes the sole focus of success. This causes companies to concentrate on sales objectives, often leading to the lowering of prices and expecting short-term losses. This approach of course could work, however in new markets where the perceived value customers are seeking is not fully understood, even constantly changing, it will lead to marketers falling into the trap of pricing whatever the buyers are willing to pay (a very low price), rather than at what the product really is worth.

[4] Survey of marketing managers from more than 300 major North American companies.

2.1.6 Pricing assumptions and information

Pricing has obviously a large impact on financial results, yet more importantly can have a huge effect on the diffusion rate of a new product/service. Yet like other aspects of the business, pricing is most often subject to uncertainty and must seek to answer rhetorical questions: What is the customer willing to pay for the product/service? How large is the market? What will the diffusion rate be of the product/service? How will the cost structure in the company be in the future? How will fixed and variable costs be distributed? Due to this devising a pricing objective and strategy is a combination of both financial aspects and marketing aspects, which together must fit the overall business model. It is often a question of who leads the decision making of pricing or the weight different aspects receive in the decision making; is it Marketing who knows the competitors and what the client is willing to pay, or is it Finance who know what adequate return (IRR) the company has to make to ultimately survive. The problem is then not only limited to "what" the price show be of a product/service, but gaining, analysing and choosing all the variables that can affect "how" to decide the price.

One characteristic of devising a pricing strategy is using numerical information, or what is sometime referred to as accounting information. A great amount of entrepreneurship research argues that accounting information is largely irrelevant during the early years of an organization's life. The argument proceeds along three principle lines (Wiklund, Baker, & Shepherd, 2010, p. 424):

- *First, new firms' accounting figures are inherently uncertain and unreliable. New firms have short performance histories and it takes time for routines and operations to stabilize and many new firms are highly volatile, operating for years before becoming profitable.*
- *Second, relative to entrepreneurs, external stakeholders are often at an information disadvantage about young firms because of a lack of formal or public records, and/or deficiencies in younger firms' formal control systems. This information asymmetry may be used opportunistically by entrepreneurs* (Shane & Stuart, 2002)*, including biased reporting of actual financials.*
- *Third, the goals of entrepreneurs typically revolve around generating growth or personal satisfaction and not necessarily about generating profits..*

Therefore, the performance of start-ups is not well reflected in traditional performance measures, such as profits or return on investment, inheritably due to uncertainty. In sum, scholars have noted that accounting information may not fairly reflect the performance and financial standing of new firms, which is the basic notion of accounting (Davidson, Stickney, & Weil, 1982). Otley (1980) alternatively criticized accounting researchers for uncritically accept the results of organization theory research concerning the effect of contingencies on organizational design. He implied that accountants had not devoted enough effort to analyzing the limitations of the organization theory literature and to questioning its application to the management control context, hence reflecting on the need for more empirical research.

Thus if literature indicates that accounting and numerical information is largely irrelevant for start-ups can the conclusion been drawn that it is also irrelevant in devising a pricing objectives and strategies, which is to a large extent based on numerical analysis? On the other hand, Stinchcombe placed creditworthiness at the heart of the organizational stratification system shaping their legitimacy (Stinchcombe, 1965). In line with that reasoning, Wiklund, Baker & Shepherd (2010) were also able to empirically demonstrate that the financial position of new ventures (indicated by liquidity, leverage and profitability) served to buffer the liabilities of newness and that these indicators were mostly based on accounting information. Devising pricing objectives and strategies are largely built on making assumptions and building forecasts, which in turn relies on numerical and accounting information. One important trait start-ups might require in dealing with pricing projections, and uncertainty in general, is prior experience of the entrepreneur and/or management in the relevant industry of the company. Cassar (2012) reports that prior industry and start-up experience specifically enhances the probability that entrepreneurs meet their financial expectations and thus increasing forecast accuracy. Another study (Oe & Mitsuhashi, 2012) revealed that start-ups reach their financial break-even point sooner when their founders have had work experience in the same industry, and that this effect becomes stronger when these firms commit more resources to information interpretation. According to these arguments to minimize uncertainty start-ups might not be able to rely excessively on numerical forecasts and projections (such as often needed for pricing), however with more prior experience mounted in the start-ups the more accuracy is embedded in the information and forecasting projections.

2.2 Liability of newness

The learning curve for an entrepreneur and his/her start-up is often steep, compelling the entrepreneur and start-up team to learn new roles and conduct new tasks. The ability to handle issues that stem from these novelties of a new venture will contribute to whether the start-up will succeed or not. One such task is for example devising the pricing objectives of the product/serves as earlier defined. This section will therefore introduce the concept of “liability to newness” and the four different areas that affect the degree of this liability. These areas are then analyzed in relation to the case study data to determine how they affect pricing issues in start-ups

2.2.1 Concept and origin

It was in 1965 that Arthur Stinchcombe published a little citied article about social structure and organizations and first introduced the concept of "liability of newness" (Stinchcombe, 1965). In his article Stinchcombe scrutinized the social conditions and individual characteristics that encouraged entrepreneurs to start new organizations. However he observed that conditions that affect the comparative success rates of new and old organizations to be poorly understood. He implied that newly founded organizations were particularly prone to failure due specifically to the fact of their implicit novelty, defining this as a "liability of newness" (Stinchcombe, 1965). Stinchcombe argued the general rule that a higher proportion of new organizations fail was due to four reasons, describing the "liability":

1) New organizations depend on the execution of new roles and tasks that have not been done before and therefore have to be learned, with some costs, both external and internal.
2) New roles have to sometimes be invented, and this may conflict with constraints on capital or creativity in the organization.
3) Social interactions in a new organization resemble those between strangers and a common normative basis or informal information structure may be lacking.
4) Stable links to clients, supporters, or customers are not yet established when an organization begins its operations.

The low success rate of newly formed organizations was by this time conventional wisdom before Stinchcombe's article supported by earlier empirical studies (Carroll, 1983). However other studies reporting contradictory evidence went quite unknown (*ibid*).

In their article Freeman, Carroll, Hanna (1983) noted that Stinchcombe's argument apparently made such good sense that organizational theorists accepted it as unquestionable and it was therefore rarely studied empirically. They though also noted that there were plausible alternative explanations of the age dependence in organizational survival rates, for example that age dependence in any death rate can be solely due to heterogeneity in the population; the rate declines with age simply because unites with the highest death rates fail early (Yashin, Manton, & Vaupe, 1985). Though as obvious as Stinchcombe's hypothesis seems to be it has to be taken into consideration that during his era substantial research in the entrepreneurship/start-up setting was lacking, especially in terms of causal reasons for their failures. In the area of the external relations of organizations he says:

"Except for a few topics such as the relations of firms to that kind of social structure called a 'market' and the relations of governments to the same social structure, the theory in this area is of little beauty or power." (Stinchcombe, 1965, p. 14)

Stinchcombe realized that evidently with so many variables directly and indirectly affecting the probability of start-up success and their likelihood of survival, any research of social sources of organization capacity tracing variables back along all possible causal chains is extremely complex. So with his introduction of what Stinchcombe called "relatively unsupported theory" (Stinchcombe, 1965, p. 146) he acknowledged that he made general characteristics of the population and the social structure of organizations and therefore encouraged more detailed studies with verified analysis.

2.2.2 Key characteristics

After introducing the liability of newness, Stinchcombe rendered into defining what in his mind made up the liability of newness (Stinchcombe, 1965). He divided the reasons for this liability into four characteristic categories and explained how social conditions affect the degree of the liability:

1) *New organizations generally involve new roles, which have to be learned. In old organizations former occupants of roles can teach their successor, communicating not only skills but also decision criteria, responsibilities to various people who have relations to the role occupant, devices for smoothing over persistent sources of tension and conflict, generalized loyalty to the organization, what sort of things can go wrong with routine procedures and so on. New organizations have to get by with generalized skills produced outside the organization, or have to invest in education. <u>Clearly, the distribution and generality of skills outside the organization, the socially induced capacity to learn new roles, and the ease of recruitment of skills to new organizations will affect the degree of disadvantage of organizations innovations.(p.148)</u>*
2) *The process of inventing new roles, the determination of their mutual relations and of structuring the field of rewards and sanctions so as to get maximum performance, have high costs in time, worry, conflict and temporary inefficiency. For some time until roles are defined, people who need to know things are left to one side of communication channels. <u>Standard social routines in the organizational culture of the population which solve many such problems (e.g. cost accounting, inventory control systems etc) clearly reduce the liability of newness.(p.148)</u>*
3) *New organizations must rely heavily on social relations among strangers. This means that relations of trust are much more precarious in new than old organizations. Although strangers almost always are less trusted than people with whom we have had long*

experience, some kinds of social structure reduce drastically the amount of difference in trustworthiness between strangers and kin or friends. Such a reduction greatly reduces the liability of newness (p.149)

4) *One of the main resources of old organizations is a set of stable ties to those who use organizational services. Old customers know how to use the services of the organization, have built their own social systems to use the old products or to influence the old type of government, are familiar with the channels of ordering, with performance qualities of the product, with how price compares and know the people they have to deal with. The stronger the ties between old organizations and people they serve, or the larger the component of personal loyalty in the consumer-producer relation, the tougher the job of establishing a new organizations.(p.150)*

The basis of the liability of newness is that being new involves problems in how the organization works internally and interacts with the external environment, and therefore can be categorized into internal and external problem areas (Grünhagen, 2008). These problem areas are pertained from the issues Stinchcombe (1965) noted:

Internal Problem area

- Lack of established organizational structure adequate to external market characteristics.
- Scarcity of management time and resources to implement organizational role duties and competences.
- Initial costs of defining and implementing intra-organizational roles and processes.

External Problem Area

- Underdeveloped exchange relationships and dependence on social interaction with strangers.
- Lack of access experience and reputation to initiate new relationships.
- Gererally unknown organizational entity to external parties.
- Lack of proof of business concept.
- Lack of trust in firm abilitites and offers.
- Lack of repuation of entrepreneur as a professional.

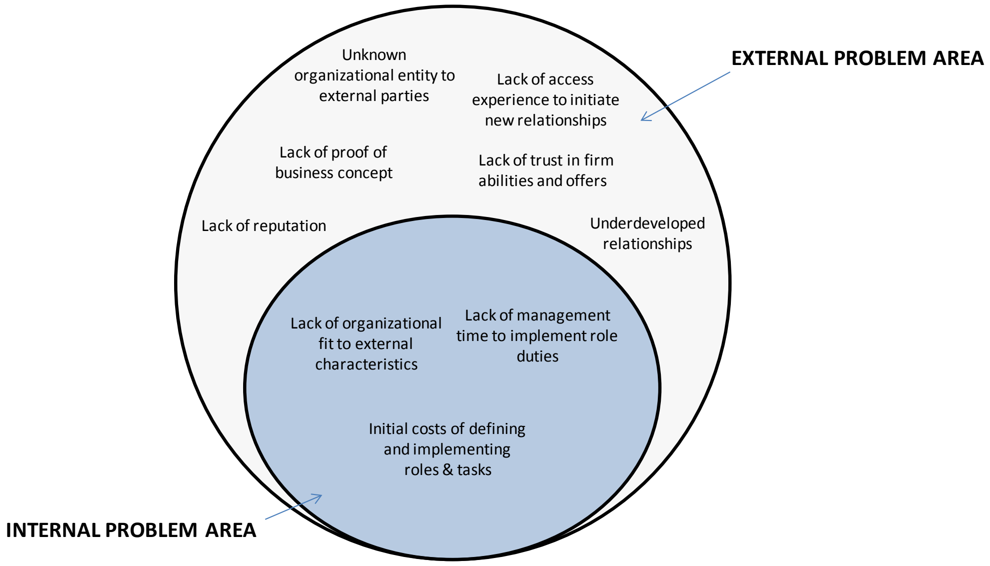


Figure 1: Internal & External Problem Areas (adapted from Grunhägen, 2008)

Venkataramna & co. (1990) devised a process model of failure among new small firms operating in tumultuous environments and operating in industries which are not asset intensive, such as service industries as well as knowledge- or information-intensive industries. They also noticed that the liabilities of newness included both internal and external obstacles and that they *"aggravate these external and internal vulnerabilities by limiting the small firm's ability to implement risk-reducing strategies such as building redundancy, diversifying, or accumulating slack"* (Venkataraman, Van De Ven, Buckeye, & Hudson, 1990, p. 294)

2.2.3 Further research on the liability of newness

Much of the literature on new organization mortality rates has been concentrated on the factors related to the failure itself. However there have been few sufficient studies undertaken to understand how the process of failure unfolds within a company (Venkataraman, Van De Ven, Buckeye, & Hudson, 1990). One reason might be that Stinchcombes argument for the liability of newness made such good sense that organizational theorist obediently accepted it (Freeman, Carroll, & Hannan, 1983). Hannan and Freeman (1989) illustrated this fact in an interesting and straightforward way:

> *"...new ventures enter a Darwinian world to which they cannot adapt if they are unsuited to their business environment".*

More current literature has also confirmed that across a wide range of industries, conditions and time frames, younger organizations are more likely to disperse/fail than older organizations (Wiklund, Baker, & Shepherd, 2010). However other terms have also emerged to explain the liabilities of being a newly formed organization. The term "Liability of adolescence" is refereed by Fichman and Levinthal (1991) as a "honeymoon period". They claimed that in the initial stage of a venture creation the organization is protected from the external environment with an initial stock of assets and has therefore a low risk of failure. After this period the mortality risk of an organization quickly grows following the declining pattern described by the liability of newness (Shepherda, Douglasb, & Shanle, 2000). Another liability definition in organizational theory is the "liability of smallness" (*ibid*), referring to the organizational burden of being small; for example lacking legitimacy in an established market and requiring economics of scale, independent to whether the organization is new or not. The nature of almost all start-ups is that they are small, therefore generally experiencing difficulties both due to their novelty and their size. So if a new organization fails, can researchers differentiate between reasons being due to size or novelty? Of course most likely the reason is a combination of both and all the countless variables that can affect the mortality/survival rate of new organizations (Stinchcombe, 1965). The cause and effect of organizational survival rates might be difficult to recognize. Dun and Bradstreet (1995) noted that some of the more salient events and reasons for new organizational failure were cash crises. However that gives thought to the causality of all the dynamic events in start-ups and whether events leading to cash crises (lower sales, higher costs, etc.) are more relevant reasons for the failure of an organization than the "cash crises" per se.

Liability of newness of course is dependent on the degree of novelty (ignorance) coupled with the new venture. Shepherda, Douglasb, & Shanle (2000) viewed for example the novelty in three different dimensions, arguing that mortality risk of new ventures increase with the degree of novelty in each dimension:

- <u>*Novelty to the market*</u> *concerns the degree to which the customers are uncertain about the new venture* (*ibid,* p.397*).* The more degree of uncertainty implies that potential customers are less likely to buy from a novel organization than from a more established market player. In reducing this novelty the start-ups have to anticipate expenditures, however will have a great deal of difficulties in accessing the amount of these expenditures, having a negative affect on the new venture's chances of survival.
- <u>*Novelty in production*</u> *concerns the extent to which the production technology used by the new venture is similar to the technologies in which the production team has experience and knowledge* (*ibid,* p.398*)*. New organizational roles emerge in start-ups and a need for organizational structure is evident which might led to internal conflicts. "*Mortality risk increases with novelty in production because novelty will possibly require greater*

expenditures in terms of dollars and time to overcome the costs associated with overcoming conflicts about new organizational roles, the development of informal organizational structures, and learning new tasks" (*ibid,* p.398).

- <u>*Novelty to management*</u> *concerns the entrepreneurial team's lack of business skills, industry specific information and start-up experience* (*ibid,* p.398). Shepherda, Douglasb, & Shanle (2000) explain that investors put a great deal of emphasis on accessing managerial capabilities and competences when evaluating whether to invest in a start-up or not and that this is a response to the over-all uncertainty facing the start-up. *"The importance that venture capitalists place on novelty to management implies that success is more likely to be achieved by those entering an industry in which venturers have prior experience* (*ibid,* p.399).

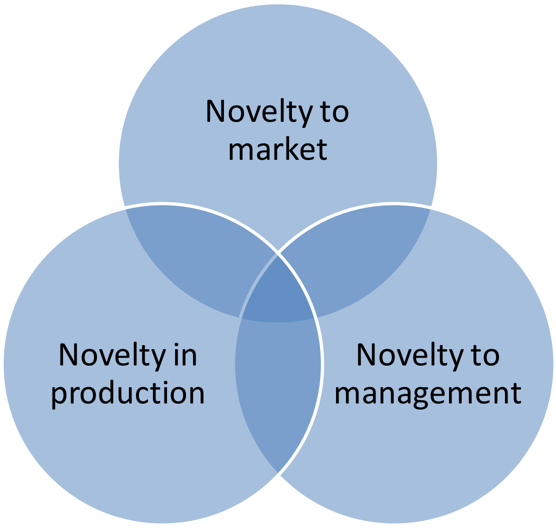


Figure 2: Novelty dimensions (adapted from Shepherda, Douglasb, & Shanle, 2000)

2.3 Uncertainty

In the previous section the liabilities of being a start-up company were explained. These liabilities emerge due to the fact that the start-ups have to deal with novelty issues in countless areas of the business. Consequently the affect of how start-ups approach and deal with these novelty issues is unknowable and prone to uncertainty. However uncertainty is an integral part of entrepreneurship and new venture/organization creation. While this may be also true about larger, older and more established companies the entrepreneur most often thrives off uncertainty and can see opportunities, rather than threats, in a fast changing environment. This section will therefore define uncertainty in entrepreneurship and start-up creations and also introduce contingency theory as a way to manage uncertainty and ultimately linking it to the research question on how uncertainty is dealt with in the pricing of products/services in start-ups.

2.3.1 Entrepreneur/start-ups uncertainty

Entrepreneurs are well able to be agile and responsive in the conditions of change and uncertainty (Koh, Gunasekaran, & Saad, 2005). As John Paul Getty, a notorious entrepreneur and industrialist, was quoted: *"Without the element of uncertainty, the bringing off of even the greatest business triumph would be dull, routine, and eminently unsatisfying".* In their article "Unpacking the uncertainty construct: Implications for entrepreneurial action" (2011) McKelvie, Haynie & Gustavsson note that the ways that uncertainty influence entrepreneurs' behaviours throughout their venture creation process is ambiguous:

> *"Entrepreneurship is a process that involves some degree of uncertainty, and thus the ability of entrepreneurs to interpret and respond to uncertainty is often what determines the degree of success or failure achieved by the venture. In fact, the notion that entrepreneurs make decisions and subsequently act in the face of inherently uncertain, even unknowable, futures is one of the most closely held assumptions in entrepreneurship" (p.273)*

They also note that robust and generalizable findings that clarify the conditions in which uncertainty may hinder or support entrepreneurial action remain indescribable. Competing and often contrasting conceptualizations of uncertainty have been applied throughout the management and entrepreneurship literatures with *"inconsistent and difficult to interpret results due to poor reliability and validity of measurement instruments, and no clear evidence of a relationship between objective characteristics of the environment and perceptions of uncertainty"* (Milliken, 1987, p. 135).

However, it is important to realize the difference between risk and uncertainty, the distinction often portrayed as vague or inconsequential. One distinction between risk and uncertainty is proposed by Doug Hubbard (2010) and used here forth.

- Uncertainty: The lack of complete certainty, that is, the existence of more than one possibility. The "true" outcome/state/result/value is not known.
- Risk: A state of uncertainty where some of the possibilities involve a loss, catastrophe, or other undesirable outcome.

In this sense, Hubbard uses the terms so that one may have uncertainty without risk but not risk without uncertainty (*ibid*). We can be uncertain about the winner of a contest, but unless we have some personal stake in it, we have no risk. Hence, there is uncertainty in whether an entrepreneur will succeed with his venture but the risk is based on the consequences of that uncertainty. The term uncertainty is occasionally used to imply a characteristic of the environment itself, however some authors suggest that "environmental uncertainty" is an incorrectly applied name (Downey & Slocum,

1975) and that environments are neither certain nor uncertain but merely perceived differently by organizations. For example, Pfeffer & Salancik (1978) define uncertainty *“as the degree to which future states of the world cannot be anticipated and accurately predicted”* (*ibid*, p. 67)

For entrepreneurs and organizational managers in general uncertainty involves not having either enough or the right information about the development of future scenarios. Galbraith (1974) saw organizations as information-processing systems and defined uncertainty as information deficiency and argued that whenever uncertainty in a task is high, people responsible for executing the task will lack information. Hence, organizational performance increases whenever the organizations capacity to deal with information matches its requirements, which according to Håkonsson (2006) is in line with contingency theory, which the next section will elaborate on.

2.3.2 Contingency theory

Organizational managers deal with an uncertain/unpredictable environment on almost a daily basis. Entrepreneurs and start-up companies deal of course with the same situation, adding on the liabilities of newness and even smallness. This has led to countless research on how entrepreneurs should manage the insecure and ambiguous future of their companies, including simulation models (Håkonsson, 2006) and management control models (Evans III, Lewis, & Pat, 1986). However, a different perspective on how managers/entrepreneurs should deal with uncertainty has been adopted as a behavioural theory; contingency theory.

In its simplicity contingency theory claims that there is no best way to organize a corporation, to lead a company, or to make decisions and that an organization is the most effective when it adapts and fits itself to the environmental conditions. The theory implies that preceding theories such as Weber's bureaucracy and Taylor's scientific management have neglected that management styles and organizational structures are influenced by various aspects of the environment: the contingency factors. Within this field of research, an increasing focus has been on how managerial cognitive orientations influence strategic outcomes. According to contingency theory, organizational performance increases whenever the organization’s capacity to deal with information matches its requirements (Håkonsson, 2006).

Criticism on the contingency approach has certainly been widespread (Donaldsson, 2001) and on a research level contingency theory has been criticized for being atheoretical (Hahn, 2007). This criticism has its roots, among others, in the competition among the various theoretical schools, e.g. the process, behavioural, and management science schools, which have accepted *“somewhat of an adversary view toward each another”* (Luthans & Stewart, 1978, p. 683). The logic of contingency theory is that all situations are basically unique and therefore managers can only manage with their own perception and opinions, thereby opposing the importance of prior knowledge and intelligence. Donaldsson (2001) noted that the critics of contingency theory *"sometimes argue that it is not sensible for organizations to move into fit with their contingencies, because while the organization is changing its structure to fit the contingencies, the contingencies themselves change, so that the organizational structural change does not produce fit"* (*ibid*, p.23).

A more important field related to new venture creation is the role of the leader (entrepreneur) in efficient management and what is known as 'contingency theory of leadership'. One of the earliest and best known theorists on this subject was Fred Fiedler, whose contingency model focused on leadership in organizations. According to Fiedler (1964) there is no ideal leadership behaviour and for example both task-oriented and relationship-oriented leaders can be effective if their orientation (favourability) fits the situation. Situational favourableness was described by Fiedler in terms of three empirically derived dimensions and this study attempted to analyst the interview data with the aim of seeing if the situation of pricing for the CEO was favourable in the first two dimensions;

- The leader-member relationship, which is the most important variable in determining the situation's favourableness
- The degree of task structure, which is the second most important input into the favourableness of the situation
- The leader's position power obtained through formal authority, which is the third most important dimension of the situation

Situations are favourable to the leader if all three of these dimensions are high. That is, if the leader is generally accepted and respected by followers (first dimension), if the task is very structured (second dimension), and if a great deal of authority and power are formally attributed to the leader's position (third dimension), then the situation is favourable.

Uncertainty spurs different opinions on different possible future outcomes for a company; the more the uncertainty the more possible future outcomes. Start-up team members must therefore often make decision regarding a certain issue knowing that the outcome is uncertain. One such issue is what price should be put on the product/service, with the uncertainty of knowing if the customer will buy the product/service at that price. The lack of research on pricing in start-ups might be related to the extreme difficulty in answering these questions as well as the diverse situations every start-up is in, the main reason why contingency theory was introduces in this section. However, also of interest, and in line with Fiedler's above reasoning, the next section deals with decision processes in entrepreneurial organization, in particular conflicts among individuals in a company.

2.4 Decisions making in start-ups

Decision making in start-ups and companies in general has spurred a great deal of research in business literature. Rather than taking a broad view on all decision making dynamics this study will focus on theoretical and empirical research on how entrepreneurs and start-ups deal with conflict. The rationale in this thesis is to notice how conflict theory in business effects the development of pricings strategies and objectives.

2.4.1 Decision making and conflicts in new ventures

Despite popular myths about individual entrepreneurs, the creation and successful management of start-ups is often a team effort, shared among individuals representing a diversity of skills and experiences (Ensleya, Amason, & Pearson, 2002) (Gartner, Shaver, Gatewood, & Katz, 1994). West & Meyer (1998) note that both entrepreneurial companies as well as established companies seeking to become more entrepreneurial should find ways to encourage the generation of idea diversity, particularly in the incipient stages of the new venture creation and gain agreement on all strategic issues by all top managers is not deemed to be productive. Therefore, the accomplishments of start-ups are often a manifestation of the company's ability to link talent and ability in a creative and coordinated fashion. However, as explained in the theory of "liability of newness" start-up entrepreneurs and management often need to learn new roles since being resource-low can force the entrepreneurs and company temeam members to take on new tasks (i.e. pricing). This "liability" can therefore put a strain on the team interactions and stimulate disagreements and conflicts. Ironically though conflict has been shown to be a channel for creativity and understanding as well as for hostility and resentment (Ensleya, Amason, & Pearson, 2002).

> *The open exchange of ideas, the objective assessment of alternatives, and the rigorous contrasting of perspectives produces conflicts out of which creative ideas and solutions emerge. At the same time, such interactions may also produce anger and alienation, which can lead to disaffection and departure by the offended team members. Thus, effective teams embrace the benefits of conflict, while also avoiding its costs (p.366)*

Research has shown that the cognitive dimension of conflict is considered to be normally practical and is defined as *''task oriented and focused on judgmental differences about how best to achieve common objectives''* (Amason, 1996, p. 127). These conflicts occur when management and/or board members consider a number of strategic alternatives from a mixture of diverse perspective; such as pricing objectives and strategies. The affective dimension of conflict is defined as a personally oriented disagreement focusing on interpersonal dislikes and disaffections (*ibid*). Jehn (1994) concluded that it was the affective dimension of conflict that caused problems in decision making. Unfortunately, cognitive and affective conflict most often occur together prompted on by good objectives yet a lack of understanding. Thus, the dilemma for researchers and managers alike is to understand the antecedents of cognitive and affective conflict, as well as the conditions that lead one to trigger the other (Ensleya, Amason, & Pearson, 2002). However research has consistently shown that effective teams require the encouragement of "cognitive" dimensions of conflict, while simultaneously discouraging "affective" dimension (*ibid*); "*Affective conflict causes problems not only by undermining decision quality and understanding but also by reducing satisfaction and team member affect, which leaves residual consequences that can further reduce TMT effectiveness in the future cognitive and affective conflict" (p.369)*

Of course most cognitive dimensions of conflict evolve due to the profound difference in how individuals conceive the future and how uncertain future scenarios will fold out. Mckelvie, Haynie & Gustavsson (2011) explored how uncertainty influences the entrepreneur's decision making resulting in that the "type" of uncertainty mattered in decision making settings. They noted that depending on how apparent uncertainty is in the environment and on the expertise of the entrepreneur, the decision-makers made different and sometimes counter-intuitive decisions with regard to their eagerness to engage in entrepreneurial action. For instance they found that one of the most frequently used explanations as to why individuals act regardless of uncertain conditions was that they had a high level of expertise. However they found that field specific expertise might play a limited role in explaining these actions, the reasons being that experts try to downplay the importance of predicting the future but focus more on creating the future.

2.5 Theory Summary

It is evident and acknowledged that the area of pricing products/services in a start-up is large and complex and impossible to be summarised in a few pages whereas it is intertwined with multiple disciplines in business, most dominantly in marketing and finance. Also, an exhaustive analysis of all elements affecting how decisions about pricing are made and implemented in start-ups is equally difficult. This chapter explained pricing objectives start-ups can have when deciding on how to price their product/service and ultimately devise a pricing strategy. These objectives are important and set the internal aim of all pricing decisions. Literature on the matter has dominantly leaned toward the use of a value-based approach, citing the importance of the customer-company relationship. However, this literature has lacked the focus on start-ups and their unique attributes and environment. This chapter has therefore also focused on defining certain general elements that start-ups deal with, mainly the liabilities of their novelty and the uncertainty threatening their survival rate, and what minimizes their affects.

The aim of this study is therefore try to analyse and develop a broader understanding of how start-ups deal with pricing objectives and general pricing issues in relations to their uncertain environment and team dynamics, hence the research questions outlined in the beginning. Literature has shown, as noted in this section, that novelty and uncertainly have certain characteristics that play a profound part in ability of start-ups to deal with both internal and external issues and this thesis will focus on the specific issue of pricing. To evaluate and test how these characteristics shape pricing decisions start-ups will be interviewed and analysed and the next section will hence explain the method the study will use to answering the research questions.

3 Methodology

This section elaborates on the chosen research method and design, the sample selection, data collection, and validity/reliability of this study.

3.1 Research Design

It is the aim of this thesis to illuminate the issues start-ups have with pricing their product/service and to put these issues into context with the uncertain environment start-ups need to deal with. Consequently a case study approach was considered the most favourable approach for the research. A case study research design is an in-depth empirical investigation of a single instance or setting to explain the processes of a phenomenon in context (Bryman & Bell, 2011). According to Yin (2009), three primary conditions/criteria exist to assess the suitability of the case study method within research.

1) The type of research question
2) The extent of control over actual events required
3) The degree of focus upon the contemporary as opposed to the historical

Since the research in the thesis is more concerned in answering “how” decisions are made and “why” the case study is suitable for the first criterion. In regards to the second criterion this thesis deems an extent of control to be unimportant and unwanted, hence fulfilling the second criteria. In regards to the third criteria, the degree of focus in this thesis will be on contemporary events, however might rely to some extent on historical data. The case-study approach was also selected after an initial assessment of other options available, however different research designs conducted in the absence of control tend to concern themselves more with the prevalence of a phenomenon while this report is more interested in the mechanisms behind it (Yin R. , 2009).

When conducting case studies a vital distinction must be made between holistic and embedded case studies (Yin R. , 1994). A holistic case study is created by a thoroughly qualitative approach that relies on narrative, phenomenological descriptions. Embedded case studies involve more than one unit, or object, of analysis and usually are not limited to qualitative analysis alone. According to the holistic view, the whole is not identical with the sum of its parts; consequently, the whole can only be understood by treating it as the central objective of the study (Gummesson, 2000). The research in this thesis is built on attaining an aggregated overview of pricings strategies in companies in the context of being start-ups. Therefore the approach made in this thesis represents a holistic approach whereas rich quantitative data was not gathered and in effect was not the deemed important to the overall design.

In order to improve the understanding of how the case companies handle pricing decisions within their uncertain environment semi-structured interviews were conducted. The reason a semi-structured interview approach was chosen compared to a structured interview approach was that it was considered important to gain a high-quality understanding of the views of the interviewees. It was therefore deemed more suitable to get richer and more detailed answers by not restricting the interviewees in any matter. Whereas the research is qualitative the emphasis is on formulating the interviewee' own perspectives and "rambling" or "going off on tangents" was encouraged to increase validity (Bryman & Bell, 2011).

3.2 Sample

To carry out this thesis, compiling a sample of start-up companies was necessary. The geographical area was limited to the surrounding region of Gothenburg and was based on convenience factors alone, whereas face-to-face interviewing was considered more appropriate and in line with the research design. While many empirical studies generally focus on industry-specific variables, this study draws its attention to the characteristics of start-up companies and notably their internal decision making on pricing strategies and tries to analyse independent of which industry the companies work in.

There is no official categorization of a start-up company, especially concerning the definition line when a company stops being regarded as a start-up. Paul Graham, founder of one of the top start-up accelerators in the world, defines a start-up as:

> *A start-up is a company designed to grow fast. Being newly founded does not in itself make a company a start-up. Nor is it necessary for a start-up to work on technology, or take venture funding, or have some sort of "exit." The only essential thing is growth. Everything else we associate with start-ups follows from growth* (Graham, 2012).

To answer the research questions in the best manner and related to the literature the sampling population had to be defined. It was therefore consider paramount that the interviewed companies were relatively early-stage and had recently commercialized their product/service. The time base of when they initially launched their product/service ranged from year 2008 to year 2012. Compiling an exhaustive population list of all start-ups under these simple criteria was evaluated to be extremely resource intensive whereas in Sweden alone over 60.000 new companies are registered yearly (NyföretagarCentrum, 2012). Hence in line with resource availability and more importantly accessibility more criteria were added to make the study possible. The sampling population of companies was identified with the following criteria:

1) Start-up companies listed in an incubator setting at GU Holding, Chalmers University and Sahlgrenska science park.
2) Start-up companies pursuing high growth.
3) Start-up companies that have recently (between the years 2008 and 2012) commercialized their product/service.
4) Start-up companies where the entrepreneur (idea provider) is still active in the company when pricing decision were made.

A non-probability sampling method (Bryman & Bell, 2011) was used in this study, a common approach in qualitative research (*ibid*). Therefore the samples were selected based on the subjective judgement of the researcher, rather than using a random selection method. Practical and convenience reasons where the main grounds for choosing this sampling method. Easier access and knowledge of certain companies in the population was available to the researcher and choosing those companies was deemed important for gaining richer data, although increasing sampling bias.

Out of the population 20 companies were contacted and 11 companies responded, and out of these 11, 4 agreed to be interviewed. The interviews were conducted in the field at geographically diverse offices around Gothenburg.

3.3 Data Collection

Data collection was conducted with semi-structured interviews with the sampled companies with key participants in the pricing decision process of the respective companies. In all cases the CEO of the company was interviewed. This method was selected because it is notable for its ability to provide a great amount of detail, depth and respondent perspective while at the same time allowing for effective hypothesis testing and analysis of interview response (Leech, 2002). A structured interview approach was not deemed suited for the aim of this study and in line with the conventional reasoning of why to choose a semi-structured approach as opposed to a semi-structured interview approach (Bryman & Bell, 2011):

1) A more unstructured approach should be used if it is important to gain an understanding of the world's views of members.
2) If a researcher has a fairly clear focus, rather than a general notion, a semi-structured approach is deemed better.

The semi-structured interviews were organized around a group of pre-established questions of an open-ended nature. Probing was though often required during the interviews and important topics that emerged were seized if in line with the research objective. The interviews consisted of one-on-one discussions in order to obtain a more personalized perspectives on the pricing objectives and how the start-ups dealt with uncertainty. The companies included in the study, due to requests of anonymity, presented in Table 1 according to coding by letter:

Factors	Company A	Company B	Company C	Company D
Year founded*	2010	2012	2012	2012
Product/Service	Electrical work vehicles	IT platform for energy data	Industrial security control systems	Virtual industrial training simulator
Empoyees	6	3	3	3
Launch of product	2011	2012	2008	2011
Interviewee	CEO	CEO	CEO	CEO

** registration of AB*

An open discussion was encouraged between the interviewer and interviewee to be able to collect practical and applicable descriptions of the pricing decision processes of the companies. Hence, the ultimate aim of the interviews was to gain rich and detailed data to be able to answer the research questions. The individuals were asked to recall events and moments regarding pricing aspects such as to explain their pricing objectives and strategies, how the decisions regarding pricing were made, what pricing objectives/paradigms were utilities (if any), illustrate how important pricing is to the company, describe the uncertainty related to pricing the product/service and reflect on any critical incidences regarding pricing decisions. Additionally the interviewees were asked about what roles management/board members take regarding pricing, overall interactions between management and the board and to reveal any in-house conflicts regarding pricing decisions.

Whereas this study is a case study of the explorative nature its findings are not intended to be statistically generalizable, but rather to better understand the reality start-ups have to deal with when formulating and implementing issues regarding the pricing of their product/service. A more quantitative approach was also not deemed plausible, mainly due to the limited sample of case companies. Although the questions were kept open certain questions were specifically raised to hopefully gain specific variables and in turn use in the study analysis. In particular and worth mentioning in direct relations to the research questions, companies were asked among others (see full questionnaire outline in Appendix I):

- *What are the main objectives of your pricing strategy?* This questions was kept open to avoid any prompting, however the aim was to get an understanding of which of the four pricing objectives listed in the theory chapter mainly guided the companies in their pricing decisions.
- *Questions regarding how they dealt with uncertainty in making assumptions for your pricing decisions.* Formulating and calculating what price a start-up should put on its product/service is dependent on assumptions which are inherently uncertain. The aim was to examine if there were any methods/techniques or deliberate actions these companies used in particular to minimize uncertainty.
- *Questions regarding insufficient information/data collection.* Low information and high uncertainty go often hand-in-hand and this question was asked to know if any specific information was lacking when deciding on pricing objectives in order to note any common theme in terms of issues affecting how companies handle the analysis of what their product/service should cost.
- *Questions on the authority level in the company in terms of pricing and financial matters.* The aim with this question was to distinguish if pricing decisions were made by any certain individuals in the start-up company and his/her influence on pricing issues.
- *Questions concerning the interaction between team members and if any conflicts arose regarding pricing issues.*To distinguish if conflict regarding pricing issues arose in the start-up and if possible to distinguish the “cognitive” and “affective” dimensions of the conflict.
- *Questions about the experience and competences of both management and board members in terms of pricing*. Prior experience of individuals in start-ups influences the company in countless ways and therefore it was deemed necessary to access these aspects.

The interviews with the case companies were either recorded or heavily transcribed during the course of the interview, with supplemental notes made. Subsequently the recorded interviews were transcribed and all data was collected into a textual database. During the formulation of quotations to include in this thesis, original quotations were on occasion adjusted to maximize the understanding of the context, for example through slight grammar adjustment, tense alteration, and choice of noun or adjective. If additional words were added for clarity by the author, the words were represented in brackets.

3.4 Validity and Reliability of the Study

Maximizing validity and reliability is an important part of any research, especially in the field of social science. Reliability relates to whether research results can be applied to a wider group than those who took part in a study. One main reason why reliability can be jeopardized is because definitions and policies regarding the researched phenomena can vary over time (Bryman & Bell, 2011). This is called “inter-observer consistency” and concerns with the degree to which two or more observers of the same behaviour agree in terms of their coding (*ibid*). Bryman & Bell (2011) note that external reliability is a difficult criterion to meet in qualitative research since it is impossible to freeze a social setting (Bryman & Bell, 2011). This study did not methodically seek to gain high reliability recognizing the before mentioned restrictions and the nature of the research, however seeks to obtain consistency in both criteria definitions for interview participants and interpretations of related social settings in the companies. For example notions about conflict between management and board members are subjective to the interviewee in every occasion.

Internal validity is considered high if there is a good match between researcher’s observations and the theoretical ideas they develop and is considered a strength of qualitative research (Bryman & Bell, 2011). In this thesis the internal validity was increased by allowing the case company interviewees the opportunity to review the transcripts of their interview before publication to ensure that which was said during the interviews and the correct understanding and interpretation of the meaning of the answers as perceived by the interviewer.

External validity is considered with the degree to which findings in research can be generalized and is often viewed as a problem for qualitative research (Bryman & Bell, 2011). In this study it should be pointed out that the sample was small due to a low response rate of participants and constitutes only an infinitesimal proportion of all start-ups in Sweden, and that this thesis should not automatically be thought of as a definitive analysis of all such companies. The purpose of this research is hopefully only the first step towards developing a broader understanding of how start-ups deal with pricing issues in relations to their uncertain environment and team dynamics; a field lacking in empirical and theoretical research. In addition this thesis is of course limited to the respondents and adding those companies in the sample that did not respond or were unable to be interviewed could admittedly yield alternative results. Hence, external validity is to a large extent compromised.

4 Case companies and findings

This section compiles descriptions of each of the selected case companies, including a brief summary of their working industry and of their development over time. This will include any significant topics on the product/service commercialization and interview data regarding the research topic and questions. Critical incidents in the firm's pricing development as elaborated upon by the interviewees will also be included to the extent possible. Due to the amount of qualitative data obtained from the interviews, a detailed case account of each company regarding the research questions and theoretical applicability is not feasible. However it is necessary to provide an introduction to the case companies and a proportion of the findings in parallel with the analysis chapter. The companies included in this study, due to requests of anonymity by some interviewees, are presented according to coding by letter.

4.1 Company A

Company A, founded in 2009, is in the business of developing, producing and selling light and medium duty electric work vehicles to professional organizations. According to the company its main strength is that they are building a business foundation on products that are developed based on customer needs and creativity through all stages of the company, from development and production to sales and after sales. The objective of the business is to both improve working conditions for drivers of duty electric work vehicles as well as to contribute to a higher performance for the business.

During their university studies entrepreneurs *Anders* (CEO) and *Jan* (CTO/Sales) and one group vehicles veteran*, Daniel*, formed Company A. The team was able to conclude that there was a strong need for a new category of vehicles - robust electric work vehicles. After months of exhibition visits, user research and vehicle testing, and in close cooperation with the university and industry, Company A developed and launched its first product in spring 2012.

According to the CEO the first business plan made by the company, before production of the vehicle started, estimated that their premium model would cost around "X"k SEK. However as the company evolved as well as the product and its features the production costs rose threefold, subsequently having a big influence on what the company thought the selling price could be. This led to somewhat of a change to the business model whereas competitor prices would be far lower than the price Company A could offer. Therefore much attention had to be put on the “life time value” of the vehicle whereas their product did have unique cost saving features for the customer. The CEO noted that he knew *“that it is better to start off with a higher price than low, whereas it is easier to lower prices in the future instead of raising them”*. Although the company conducted an analysis of the value the potential customers could place on the product/service it was evident that it did not convey completely to the pricing of the product whereas in reality the eagerness to maintain a certain profit margin and pressure from potential customers on low prices was quit burdening and mostly affected the pricing decisions. The decisions on pricing were frequently made in this fashion as described by the CEO: *“Jan, [as the front-line sales person], talked to a potential customer and discuses all aspects of the pricing. He would then brief me and I would do some calculations and then we would deliberate on the right pricing. We needed to compromise whereas I was with the financials, wanting to maintain a profit and positive cash flow, while Jan though it was more necessary to get the first sale and sign a customer despite a low sales price.”*

Another critical incident was noted when the CEO was asked about any information the decision making process of pricing lacked. He was firm that a low understanding of the pricing objectives and strategies of his competitors made any pricing decisions difficult. Although they constantly analyzed their competitors and talked to potential customers it was almost impossible to know the exact deals competitors made with their companies (all hidden costs).

The management of the company had prior to the establishment of Company A no experience in the related industry. One board member had experience in the car/truck industry but not in particular the electric work vehicle market. Neither management nor the board had particular experience in the field of financials and/or pricing. The board was therefore not active in devising the pricing strategy of the company and was mostly driven by the management team and entrepreneurs, according to the CEO. The company did briefly have external counseling on pricing led by an expert from the University; however it did not seem that it was very influential in the pricing decisions made, expect for devising financial KPI (key performance indicators) the company could follow. It was therefore evident that new roles needed to be learned in the Company in particular *Anders* taking on the CEO position and main financial responsibilities, and that considerable internal and external problem areas arose. Due to this the CEO noted that their pricing strategy was ultimately a based on *“trial & error”* and that *“pricing is easier in theory than in reality”.*

4.2 Company B

Founded in 2011, the entrepreneurs of the company are three fellow university students with IT and engineering experience and they cover the management role of the company. The board of the company consists of the entrepreneurs, one board member from the University and one external member.

Company B's business revolves around making individuals and businesses able to easily download their electrical data and thus monitor and understand their own electric consumption. By making this data accessible and transparent the number of external services will increase and ultimately help consumers save and change their consumption behavior. To make electrical data available Company B has, together with partners, developed a platform (energy cloud) in a privacy safe way for third party developers, as well as an App that end-users can use to track their electricity consumption. The practice of publishing APIs allows web communities to create an open architecture for sharing content and data between communities and applications. In simpler terms, an API makes it easier to develop a program by providing all the building blocks; a programmer/developer then puts the blocks together. Company B realized that electricity data is reserved for electricity operators and is relatively difficult to access. However the company recognized that external developers with extensive experience were interested in refining the data to develop user-friendly services.

The revenue model of the company is based on electricity (utility) companies paying Company B to host electricity data on the energy cloud enabling them to outsource the development of energy data services for their customers. The utility companies us electricity meter counters (for example one is in every residential house) to control and monitor the electricity usage. Company B charges "per meter counter" and hence based on the customer size of the respective utility company. Additional service fees and monthly fees can also be included as after-sales activities.

Company B charges 60 SEK "per meter counter" and according to the CEO this is considerable lower than current competitor's charge, which ranges from 600 SEK down to 80 SEK depending on the number of meter counters. According to the CEO, the reason Company B can offer lower prices is due to their product being more atomized and having less expensive running costs. When asked how the 60 SEK was formulated, the CEO said *"we just came up with it"*. Initially when the company was established their product was only an app (a software application for a mobile phone) and with that product they did a detailed inside-out analysis of what the price should be, coming to the conclusion that the App should be sold at 80 SEK. However, after evolving their product line to the earlier mentioned API platform this pricing analysis was not repeated; hence *"60 SEK sounded like a good number"*. The CEO disclosed though that the sales manager of the company had actually full authority to deviate for the pricing of 60 SEK, that the pricing strategy was basically a *"trial-and-error"* strategy. This was implemented in the way that the sales manager had to listen and *"feel"* the potential customer regarding what he was willing to pay and offer the price needed to get a secure deal.

Asked about management and board experience in pricing, the CEO noted that *"nobody really has any experience in pricing or in economics"* indicating that the management team had to take on new roles and learn about finances and pricing as the company evolved. The board was therefore not actively involved in determining prices, a task entirely in the hands of management. Financial related matters of interest to the board were regarding the company's cash-flow position and projections. In regards of pricing knowledge the CEO noted: *"...we know that in theory you should start high and go low because it's harder to higher the price than lower it..".* However, contrary to that the company did not deem it possible to offer the same price as more established competitors due to Company B's lack of legitimacy. A contributing factor was also the lack of information about competitor pricing schemes, i.e. included/excluded service fees, and after-sale and update options, information extremely difficult to obtain according to the CEO, fuelling the uncertainty the company dealt with.

4.3 Company C

Company C offers products and services for information security in industrial control systems, called SCADA- Supervisory Control and Data Acquisition. Large industrial organizations including private and government owned infrastructures are threatened by potential cyber attacks targeted towards their SCADA systems. Company C therefore assists industrial infrastructure owners, mainly water & sewage utilities, to safeguard their communication systems from such attacks. SCADA, and IT systems in general, share the same information security threats due to their increased integration. However, it is extremely complex to add security to SCADA because the life-span is in decades and there is no capacity to support/add security. Company C's innovation is the development of a novel and flexible platform making it possible to add increase security to the SCADA systems, preferably in many different application areas while keeping their total-security-implementation-costs very low.

Company C was incubated in 2009 by a leading business incubator but the product idea had undergone development with the idea provider for 3 years prior to the incubation. The company's product consists of a stand-alone unit that secures the information flow between two serial communication points. The CEO of the company joined the company when incubated and he explained that prior to the incubation sales efforts of the product (unit) had been tested at a certain price per unit. He also noted that they didn't have any focus on pricing in the beginning and explained how the pricing strategy developed: *"In the beginning we did make a mistake. When we received the idea, they had tried to sell it, on and off for I think 3-4 years, with a certain price. We did not think about that price... we had no clue at all... no idea how to market, what the value was for the customers. We took that price and used it in the communication to customers. At the project end we still had the same price. Then I realized with the business coach, we should link the pricing to the value it was creating."*

This realization of the CEO led to the pricing strategy being more integrated with the business model. *"The pricing had to be more part of the business model. If you look at the first business plan, we had to sell hundreds of units to be profitable. The price was way too low! We didn't think about the maintenance, distribution costs, production costs, instillation costs and service cost".* The business model consequently shifted and the company viewed that it was selling "insurance" and "security", rather than selling a tangible product. This focus change altered the pricing strategy to being extensively customer and value driven. The price to the potential customer was therefore driven by the calculation *"of the alternative of not having this security feature".* Security breaches at water & sewage companies can be extremely costly and the CEO noted that the price is set around 10x less than the cost of a potential security breach.

The CEO revealed that though the board of the company was to a large extent active in many areas of the business, conducting pricing objectives and strategies was not one of them. This was mainly due to the uncertainty in what the potential customers were willing to pay and that the management team, as contact persons to the customers, had to have the authority to set and manage prices. Hence there had been no conflicts regarding any pricing issues between management members and board members.

4.4 Company D

The product and business idea behind Company D had its birth in collaboration between Company D and a university R&D department. After being successfully developed it was then launched in 2011 as a new venture creation within the same university with the aim of full commercialization. The product was the world's first simulator within a specific industrial field, based on an interactive internet portal. However the company aims to become one of the leading developers of virtual training and education within the industrial industry.

The company sells the product directly to end-users in the construction and contractor industry as well as to specific educational units in the same field. Also the company offers a concept which involves integrating their product with products produced by robot manufactures. The pricing of all these “three” products differentiate to some extent from each other, however the main model is selling the product at a fixed price, deviating only in terms of incremental discounts, but including yearly service payments that are more manoeuvrable. According to the CEO interviewed the main obstacle in pricing negotiations with potential customers was the presentation of yearly fees, a practice uncommon in the industry.

The board of the company comprises of the idea provider, a university representative, and an external advisor. In terms of involvement in the company, the board was noted by the CEO to be considerably active. Regarding involvement in pricing the CEO explained that one board member was particularly engaged in pricing matters, however he was the representative of the university and had prior knowledge and experience in the field of finance and pricing issues and actually worked as an advisor to other companies. The authority of pricing was though in the end in the hands of the CEO: *“In the end I have the authority and decide. However, if needed, I have to explain margins and cash-flow to the board...”.*

Company D’s aim is that every sale makes at least a predetermined minimum profit margin, hence the low deviation from the listed price noted by the CEO. When asked if there was any room for lowering the fixed price in negotiations the CEO noted*: “No, not really. It is very clear that we have to have certain margins in every sale...”*, resembling a cost-plus objective. Nonetheless the CEO explained the importance of analysing competitor pricing, although he explained that direct competitors were hard to find. This information he believed was most lacking in formulating pricing decisions. The CEO explained that he was also the main sales person in the company and he had sometimes difficulties in holding to the fixed price whereas as a start-up the need for a obtaining the first few contracts were extremely important. Also he noted that in the current pricing consideration was not taken to the possibility of future price increases if new features were added. In terms of estimating the long term value the product delivered to potential customers the CEO explained that the value was to some extent measurable whereas the simulator saved considerable man-power and material for the companies using it. However the data was not judged reliable enough and did only extended to sales talks to customers but not to the calculations of product prices in line with the value-based pricing approach.

5 Analysis and results

This section will attend to the research questions stated at the beginning of the study, and analyze the data gathered using the theoretical tools outlined in the respective section. Based upon data gathered through the semi-structured interviews, internal and external company sources, the presence of the theoretical concepts introduced earlier will be analyzed.

5.1 Liability of newness and pricing

This section analyzes the case companies based on the characteristics of the liabilities of newness and how the liabilities of a start-up affect the issues of pricing.

5.1.1 Liability characteristics

Stinchcombe (1965) noted that a higher proportion of new organizations than established organizations fail and the reasons could be divided into 4 different areas that affect the degree of the liability, as explained in the theory overview. These areas will be analyzed individually in relation to the gathered data from the case companies to how these liabilities apply to the issues that the companies had concerning pricing of their product/service.

"New organizations depend on new roles and tasks that have not been done before and therefore have to be learned."

In older and more established companies the roles and task of individual employees have most often been laid out and a foundation of process, either routine or by habit, have been distinguished and even documented into detail. This has been done by constantly building new knowledge on top off already created knowledge in the company, hence placing established companies higher in the learning curve. Start-ups are most often established by entrepreneurs due to some prior knowledge, knowhow or skills, which might though be limited to a specific field or industry. Whereas the sample of this study is based on start-ups that have been generated from a university setting, in a format where entrepreneurs/idea-providers and university students are coupled together, the recruitment of more diversified skills in the start-up seemed obvious from the company's point of view. However, no prior skills in pricing, or financial skills in general, where evident in the start-ups according to the companies, leading to the role and task of making pricing decisions being taken on by the designated management.

However in some cases, the issues of pricing weren't even considered when the start-up started. Company C acknowledged that it was after contacting their first potential customers about their product/service that it came to light that the initial pricing strategy was flawed: *"..if you look at the* *first business plan we made, we would have had to sell hundreds or thousands of units to be profitable. The price was too way to low!“*.

New roles have to sometimes be invented, and this may conflict with constraints on capital or creativity in the organization.

As earlier mentioned the companies in the study needed to engage in new roles and task regarding pricing. Pricing was most often officially in the hands of the CEO, however it seemed that it was a joint responsibility of the CEO and sales units and that in fact the front-line people had authority to manoeuvre and change the pricing of the product/service. It was evident in the case companies that pricing issues had no formal authority and all the companies in the study mentioned that the pricing was mostly decided through direct conversations and negotiations with the customer whereas it was deemed more important to get the *“first sale than the exact best price”*. This lack of authority was noted by Stinchcombe to lead to bottlenecks in decision making and could put constraints on the on-going creativity in start-ups and on capital, both financial and human. No company in the study mentioned that pricing put any restraints on other issues in the company. However this might have been mostly due to the low priority the companies put on spending time critically and methodically devising pricing strategies and objectives.

Stinchcombe noted also that recruiting good financial system infra-structure e.g. cost accounting, inventory control systems etc, could reduce the liability of newness and increase the company’s legitimacy. However the study companies did not acknowledge any lacking in financial or pricing infra-structure of the tangible nature that put constraints on issues regarding pricing decisions.

Social interactions in a new organization resemble those between strangers and a common normative basis or informal information structure may be lacking.

This third aspect of the liability of newness is based on that fact that business is to a high degree based on social relations between multiple actors, from suppliers, shareholders and creditors to employees and external advisors. The more these relations are built on trust and mutual understanding the more beneficial these relations are for a company. However relations between actors take time to build and for start-ups these social relations do not exist to the same degree as more established companies and are therefore more unstable and can put constraint on the start-up.

As mentioned earlier, the tasks of pricing were new to the case companies. However, the companies noted that they had access to external advisors that could help them form strategies, most often in conjunction with business modelling. For the case companies it seemed that the recruitment of external assistance was not difficult to obtain and most companies utilized external advisory. Company C viewed the advice as extremely beneficial, noting no inefficiencies in recruiting out-side assistance. In fact *"a pair of new fresh eyes" (Company A)* helped the company in changing the whole business plan: *"Then I realized with the business coach, we should link the pricing to the value it was creating." (Company C)*

<u>Stable links to clients, supporters, or customers are not yet established when an organization begins operation.</u>

Mature companies are built on a set of established ties to customers (Stinchcombe, 1965) whereas the customers *"know how to use the services [products] of the organization, have built their own social systems to use the old products or to influence the old type of government, are familiar with the channels of ordering, with performance qualities of the product, with how the price compares, and know the people they have to deal with"* (Stinchcombe, 1965, p. 149). This subsequently gives the more established companies a valuable advantage compared to start-ups.

During the conversations with the case companies it was evident that knowing the potential customer, his needs and wants, was vital for making any sales and ultimately the survival of the companies. Analysing the price the customer was willing to pay for the product/service was a crucial part of this relationship building, and a part of this scrutiny was knowing what the competitors were pricing their product/service, as Company A stated: "*We have tried to analyse the value we are creating for our potential customer and compared to competitors. It has been beneficial looking at competitors and we perform higher in some features and worse in others. Then we use this as arguments with our potential customers."* This is similar to want Company D expressed also, noting that the value-creation analysis was heavily used in negotiations with potential customers. Company A also stated that part of knowing the customer value was also knowing what competitors were pricing there product, *"... we don't know the actual deals, and that is important... website prices of customers don't say anything. Also more analysis of what the hidden cost are of the customer, for example maintenance and service costs."*, noting that this fact played a big part in the uncertainty of their pricing. Company B noted the same aspect of the ties between potential customers and their competitors: *"we lack knowledge of the competitors. The price is hidden, we know the 600 SEK price but what do they include? How do they charge for service?"*

This entailed that although most of the case companies strived to set their pricing based on the value-based paradigm, struggle for establishing good relationships made the companies fall back on customer-driven approach; that is deciding the price based on what the customer is willing to pay for it, rather than what the product is really worth (Nagle, Hogan, & Zale, 2011).

5.1.2 Internal vs External problems (Grünhagen)

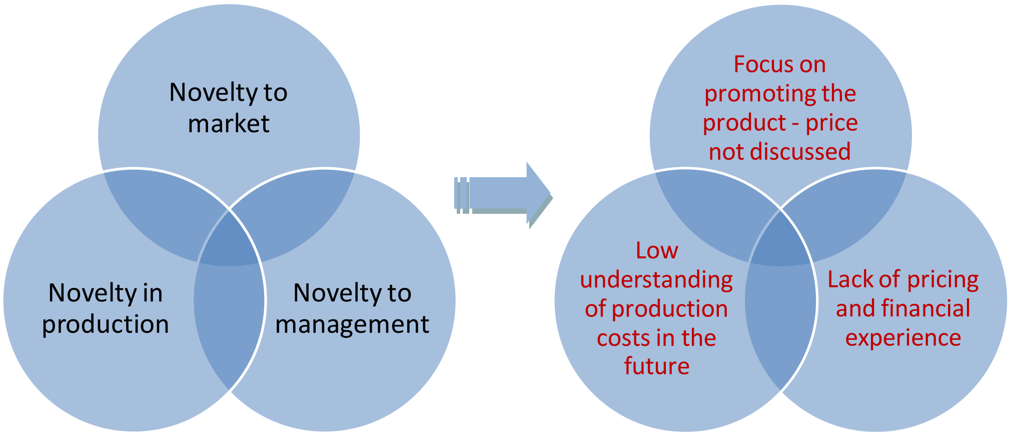
Grünhagen (2008) summarized and formed Stinchcombe ‘s liabilities of newness into internal and external problem areas.

One of internal problems mentioned by Grünhagen is that start-ups lack the established of organizational structure. The case companies noted that the internal structure in the companies were quite “free” and did not resemble any hieratical formation. However this did not seem to have any effect on pricing issues and Company A mentioned that dealing with pricing issues was a constant dialogue between the CEO and Sales Manager with decisions on pricing being made jointly. Another internal problem plaguing start-ups is the scarcity of management time and resource competences to implement organizational duties. In terms of pricing the resources needed were defined as human capital and were clearly not available internally whereas no pricing experience was apparent in the companies. This led to the need to define and implement intra-organizational roles and process of pricing, another internal problem due to the initial costs, both financially and time-wise, needed.

Relations of trust between external actors are important for new companies and being resource low internally increases the significance of these outside ties and relationships. The trust relationship needed was defined as an external problem area, or: “*underdeveloped exchange relationships and dependence on social interaction with strangers”* (Grünhagen, 2008). Regarding pricing, access and relationships with external advisory was noted important by the case companies due to the lack of internal resources. Pricing strategy assistants and external advisory was though noted by the case companies as quite easily accessible. However it did not seem that these external relationships were sought after by the companies, without identifying why, but rather that it was part of the setting that companies were in with university/incubator actors. Two companies though did not that the advisory was very beneficial and that they put trust into the advice given, subsequently changing the business model of the company completely. Another external problem area defined was the evident lack of business concept proof and the external trust in the firm abilities and offers. The effect of these problems was reflected in the lack of firm decision making in pricing strategies. Company B mentioned that as a start-up they didn’t seem to have the legitimacy to have a higher price than the customers, however having the price lower seemed to indicate that their product/service was inferior compared to the competitors.

5.1.3 Novelty in three different dimension

The liability of newness is dependent on the degree of novelty (ignorance) coupled with the new venture (Carroll, 1983). Shepherda, Douglasb, & Shanle (2000) viewed the novelty in three different dimensions, arguing that the mortality risk of new ventures increased with the degree of novelty in each dimension. One purpose of this study was to observe how the he degree of novelty in the company, in terms of these dimensions, affected specifically issues of pricing of products/services in start-ups. The affects are summarized in Figure x following with a deeper explanation.



Figures 3: Novelty effects on pricing issues

<u>Novelty to the market</u> concerns the degree to which the customers are uncertain about the new venture.

Novelty to the market is a typical battle for start-ups, leading to the need to educate the market about their product/service to provide some legitimacy to its corporate venture. First they must educate the market that their novel product/service stands a comparison to more established products/services and therefore worth buying, reducing the novelty to the market. Consequently they then have to see how much the potential customer is willing to pay for that same product/service. The case companies noted that this was a large part of the company-customer dialogue and led therefore to discussions of pricing being left out and not addressed. One case company, Company C, noted that prices were intentionally left out when negotiating with potential customers: *"The process is very simple, [we] never mention prices in the beginning. We do ask them what their budget they have is. I learned from a sales advisor about this! We then no right a way how many links they have. We then therefore already know the price when we get that info. We don't give them quotation"*.

Shepherda, Douglasb, & Shanle (2000) noted that educating the market would put stress on the financial issues of the company, hence affecting the assumptions needed to formulate a pricing strategy:

> *In its planning, the new venture must foresee expenditures on advertising to familiarize and inform potential consumers about the new venture and, in so doing, reduce novelty to the market. There is likely to be a large variance around the expected value of that expenditure, since, until the depths of consumer ignorance have been plumbed. Potential customers are less likely to purchase from a more novel organization.(p.xx)*

Novelty in production concerns the extent to which the production technology used by the new venture is similar to the technologies in which the production team has experience and knowledge.

One particularly difficult aspect to pricing is knowing the exact production costs of the product/service will be in the future, hence the novelty in production. Start-ups are about growth and with economics of scale production costs will decline. According to the case companies these assumptions seemed to be the most difficult to access to establish a financially sound pricing objective, most evident when the first production cost budget for Company A was 3 times lower than when the product was actually produced for the first time. However the rational of (Shepherda, Douglasb, & Shanle (2000) for the novelty seems to based more on the low knowledge and experience of production team members, for example the fact that new people are working together and conflicts are likely to arise, hence characteristic not related to pricing.

Novelty to management concerns the entrepreneurial team's lack of business skills, industry specific information and start-up experience

All the case companies noted that there was a lack of financial and specific pricing experience evidently affecting the decisions made regarding what potential customers should be charged for the product/service. As noted in the literature review industry-specific human capital appears to be an important determinant of the failure or survival of a start-up (Shepherda, Douglasb, & Shanle, 2000). A key criteria used by investors and venture capitalists in valuating start-ups is the management capabilities and competence and the reliance on the competence of the management team is a reaction to the uncertainty facing a start-up (*ibid*). This study did not analyse investor views on start-up pricing capabilities or in general investor/company relations, an analysis which would though be beneficial in determining the degree of importance pricing is for a start-up. However, it might be inferred from this study that due to the lack of board involvement in pricing and full authority in pricing given to management that the novelty of management in pricing would not be deemed high, whereas the board represents the investors in the start-up.

5.2 Contingency theory and pricing

Within the field of contingency theory research, an increasing focus has been on how managerial cognitive orientations influence strategic outcomes (Håkonsson, 2006). Start-ups manager's deal with an uncertain/unpredictable environment on almost a daily basis, pressuring them to be flexible and adaptable in their pricing objectives. One aspect of this study was to see if pricing decision making in start-ups is based on hieratical routines/processes and firmly defined assumptions or if they were more based on cognitive orientations. Two case companies mentioned that pricing was a "trial-and-error" whereas constant conversations with potential customers and flexible organizational structure lead to the pricing of the product/service being altered easily if needed. This could also be inferred from other case companies where they stressed the company/customer relationship was more important than finding the exact price for the customer.

In uncertain situations a strong leadership in a start-up is beneficial, however according to Fiedler (1964) there is no ideal leadership behaviour and for example both task-oriented and relationship-oriented leaders can be effective if their orientation (favourability) fits the situation. Leadership behaviour was not part of this study. The leadership situation of the company could have been studied in terms of overall leadership in the company and its effect on pricing, or by analysing the specific leadership role of pricing issues. What was evident in this study though, and inferred by the interviews, was that a specific leadership role of pricing was non-existent, or at best very informal. Due to the lack of board involvement in pricing the task authority (leadership) of pricing was placed on the CEO and therefore the leadership role in the situation of pricing could be inferred to some extent as being a CEO consideration. A situational favourableness was described by Fiedler (1964) in terms of three dimensions; the situations being favourable to the leader if all three of these dimensions are high. This study attempted to analyst the interview data with the aim of seeing if the situation of pricing for the CEO was favourable in two dimensions, the leader-membership relationship and the degree of task-structure:

The <u>leader-member relationship</u>, which is the most important variable in determining the situation's favourableness

Fiedler (1964) noted that the leader-member relationship was the most important aspect of the any favourable situation. This was due to the fact *that "if the leader lacked group support, energy is* *diverted to controlling the group rather than toward planning, problem-solving, and productivity"* (*ibid*, p.55).

In the case companies the leader-member relationship were noted as high. This can be an effect of the small size of the team members (2-4) and because pricing was such a novel topic for the company no leaders of pricing issues were evident. Company A CEO stated: "*We needed to compromise whereas I was with the financials, wanting to maintain a profit and positive cash flow, while Gustav though it was more necessary to get the first sale and sign a customer despite a low sales price."* It was clear that the CEO of this study company had some sort of pricing authority but said that in these discussions there was mutal respect for the opinions and dicusision were made as a team.

The degree of task structure, which is the second most important input into the favourableness of the situation

It was evident that pricing issues and tasks in the companies seemed to lack leadership and the degree of task structure in pricing was very low, hence possibly contributing to unfavourable conditions for decision making in pricing. The reason most commonly noted was the lack of financial experience in the company and subsequently the lack of know-how in issues related to pricing of the product/service.

Fielder (1964) said *"The sense of predictability and certainty provided by a task with clear goals and procedures contributes to the overall level of situational control"* (*ibid*, p.146). In the case companies the task of pricing didn't seem to be "owned by anyone" and hence lacked structure. Company B mentioned that analysing competitor prices was a task that the company had decided on was extremely important to their own pricing strategy, but had not yet initiated the work and it was not explained what exactly the goal of this "needed" analysis was.

5.3 Decision making and pricing

Research has consistently shown that effective teams require the encouragement of "cognitive" dimensions of conflict, while at the same time discouraging "affective" dimension (Ensleya, Amason, & Pearson, 2002). Whereas pricing is involved with countless assumptions and paradigms this study sought out to see if any conflicts emerged in the process of deciding on or implementing pricing strategies or objectives of the case companies. This was done whereas conflict (cognitive) was considered an important part of making good and sound decisions in a company (Jehn, 1994). The interviewees of the case companies all noted that no major conflicts evolved from pricing issues. No clear answers were obtained in regards to why the case companies believed no inter-team conflicts arose on the subject of pricing. It could however be linked to the fact that knowledge was lacking in the field making in difficult for individuals to form their own opinion on the subject. Another reason for lack of conflicts can be what seemed to a consensus on that data and feedback from potential customers, gained from front-line individuals (sales), was the main driver of what pricing was implemented; in a way out-sourcing the decision making to the customer.

It should though be noted that the term and definition of "conflict" might have been perceived differently between case companies, hence a need for probing during the interviews. For example defining when a conversation on a subject goes from exchanging opinions to a conflict can be complex. Company A and B noted that discussions on pricing were continuous within the companies and different opinions emerged regularly but however never led to what they perceived as situations of conflict.

6 Discussion and Future Research

The following section will first answer the original research questions outlined in the introduction followed by concluding reflections from the author as well as outlining opportunities for future research stemming from this thesis.

6.1 Discussions regarding the research Questions

Question 1: What are the approaches Swedish start-ups use in dealing with uncertainty and novelty in deciding their pricing objectives and strategy?

The sample companies viewed three crucial factors that made up uncertainty in pricing:

1) The actual value their product/service was to the customer (a necessity for the value-based paradigm)
2) The actual competitor prices of identified competitors. (a necessity for the customer & share-driven paradigm)
3) The actual costs for the company of producing their products/services when they scale (a necessity for the cost-plus paradigm)

These uncertainties defined by the start-ups were therefore each essential building blocks to each of the four identified pricing objectives indicating that uncertainty had a fundamental effects on pricing issues in start-ups. Due to the uncertainty in these important areas, the start-ups seemed to approach pricing by disassociating themselves from conventional pricing theories and consequently decreasing the focus on pricing objectives, explained predominantly to the lack of information. For the most part the companies explained their approach to pricing in somewhat a diverse manner, emphasising the importance of contradicting factors. When trying to define their pricing objectives the case companies argued the importance of making financial sound decisions, aiming for a cost-plus based approach, however at the same time the companies noted the importance of having flexible pricing options and a clear vision on what exactly the potential customer wanted to pay. The companies noted it equally important to analyse information on what the value of the product/service was for the customer and what the competitors pricing strategy was; an analysis identified by the companies as difficult and information/assumption intensive, hence extremely uncertain. This is in line with Galbraith's argument that whenever task uncertainty is high, people responsible for executing the task will lack information.

Question 2: How do pricing objectives and strategies evolve in these start-ups before the launch of their product/service?

It was evident that in the beginning stages of the start-ups that to the most extent pricing issues were not addressed, or at best formulated in a very short time span. The focus was largely on evolving the business model though leaving financial issues such a pricing at a distance. However due to the incubator setting of the sampled companies and their university connections the sampled companies had access to external advisor in regards to business modelling and consequently pricing, thus of course to a large extent minimizing the validity of this research. It seemed in most cases that pricing issues were not fully explored until this external advice was initiated, changing subsequently in two cases the whole business model radically. It was apparent that the advice given to the companies leaned to the application of a value-based approach to pricing. Nonetheless, it was also apparent that when the start-up companies increased their interaction with potential customers the pressure of making a sale emerged, shifting the focus to customer and share driven objectives.

Question 3: What is the organizational process of implementing a pricing strategy (and what actors lead and influence the decisions made)?

When asked about the involvement of board members in either the development or implementation of pricing objectives and strategies all case companies noted that the involvement was low. The reason noted was that firstly the board members did not have any particular experience in the specific product/service the companies were selling and no particular experience in pricing matters in general. It was therefore an informal agreement that it was in the hands of management to decide on pricing objectives and implementing pricing strategies. This task was mostly seen as a task for the CEO. However, when asked the CEO's all noted that it was a joint responsibility to decide on pricing matters. The organizational and operation process of pricing can be best described as a "trial-and-error" progression, the actually wording of three case companies. This meant that individuals in the start-up who where in direct contact with the potential customers had a wide authority to negotiate pricing and change or alter any predetermined pricing goals. The process of implementing the pricing strategy was therefore noticeably in the hands of these individuals having considerable influence in determining pricing issues, although in close collaborations with other management members. Hence the organizational process of pricing was a bottom-up procedure rather than being top-down.

6.2 Concluding remarks

There are many areas of uncertainty start-up companies need to deal with on a daily basis and knowing what to price the product/service of the company was clearly identified as one those areas in this study. For the most part, the case companies showed generally all of the characteristics of "newness" described by Stinchcombe (1965) as well as the clearly defined internal and external problem areas defined by Grünhagen (2008), having a substantial impact on how pricing objectives and strategies were decided upon and implemented. The impact can be described as a disassociation from conventional pricing theories and decreasing the focus on pricing objectives. Though countless research has been done on pricing and how established companies conduct their pricing schemes, the start-ups did not seem to be able and willing to lean on theoretical or empirical examples of how to formalize their pricing decisions. The companies did though acknowledge the extreme importance of defining and analysing the true value, interpreted in financial terms, their product brought to their potential customer (value-based pricing), a method where the importance of competitor prices is minimized. This method was also advised to two case companies from external actors. However, ultimately identified in the interviews, growth was also an apparent goal for the companies and that other objectives emerged, as the fixation of attracting more information on what their competitors were pricing their products/services, leading to an obvious customer- and share-driven approach.

It was the aim of this thesis to illuminate the issues start-ups had with pricing in light of their uncertain environment. In a holistic perspective, the low quantity of sampled companies in this study and the diversity of their products/services make it truly challenging to generalize any patterns of pricing decision-making. However, the companies exhibited what this thesis perceives as "trial-and-error" decision making process as well as perception that the "gut-feeling" was imperative in formulated any pricing decisions. This thesis recognized in literature about decision making in companies that effective companies required "cognitive" dimensions of conflict (Amason, 1996) and therefore aimed to identify the actors actively involved in pricing issues and how the interaction was in terms of pricing. No company noted that conflicts of any nature emerged in pricing decision making aspects, despite the both the authority on pricing being ill-defined and unclear. To a certain degree team members did have different opinions about pricing issues, however due to the identified lack of both board member involvement pricing conversations were limited to a very small number of participants, which might contribute to the low conflict levels.

6.3 Future Research

The most critical aspect to future research in this field is the gathering and identifying of more companies fitting a start-up definition that was used in this thesis, increasing the generability of any important conclusions. Also, the start-up population was limited to a regional area in this study as well as being limited to a certain background setting of incubators and universities. It was identified in this study that the case companies might have had more extensive access to human capital resources than other start-ups, in terms of external advisory, subsequently limiting the generability to other companies that do not have the same base of external resources. Certain studies in business deliberately focus on the characteristics of start-ups in incubator settings and also comparison studies have been done to see if these companies either out-perform or show different characterises then other start-ups outside of this setting. However no research was found in terms of start-ups pricing issues incubator start-ups, making further research interesting.

The aim of this research was to isolate pricing issues independent of the start-ups industry or market, whereas the focus was more on the organizational characteristics rather than the product/service. Perhaps future studies could extend their samples to certain industries or ownership structures in order to isolate more mitigating factors or characteristics of decision-making in pricing. Widening the geographical scope to all of Sweden, or other areas for that matter, would subsequently lead to more pre-study work but would be prone to generate more clearer and vigorous results.

This study identified four pricing objectives which is a considerable broad approach to pricing. The reason was mainly due to the fact that the thesis was not limited to any certain product/service or industry, whereas a more narrow approach on that aspect was believed to call for a narrower definition of pricing objectives and strategies. Although this was decided on in this study, further scrutiny of certain pricing objectives, either the ones defined in this study or other conceptualized definitions, and their applications in start-ups could be more beneficial. Pricing has theoretical applications to various fields of business research such as business modelling, marketing and financing. Research on a narrower basis in any certain field might produce more concrete analysis and deduction of important aspects of pricing.

Another crucial aspect of future research in this field could be advancing the research to a longitudinal study, a more ideal method to analyse the effect of decision making in pricing. In this research study the case companies had to retain information and describe past actions and put into current circumstances. A more important addition to this field of research would be to observe and investigate the impact pricing decisions have on either the success of the start-up and/or the diffusion of the product/service. Given resource constraints this option was not feasible in this study, but if initiated could provide a robust base for building more advanced theories concerning pricing and start-ups. This research could therefore, at least to a certain degree, conclude if a certain pricing objective or strategy is more beneficial for start-up.

This study did not analyse investor views on start-up pricing capabilities or in general investor/company relations, an analysis which would though be beneficial in determining the degree of importance pricing is for a start-up. This study noted that board members of the case companies did not actively participate in formulating or implementing pricing objectives, an indicator that investors and owners do not view pricing as an important factor for the success of the company. However in light of the small sample of companies in this study it is extremely difficult to generalize on the matter. Further research could though identify if more active involvement of board members in pricing plays a favourable role in the development of the start-ups as well as investigating the experience and competences of these individuals.

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8 Appendix

8.1 Questionnaire

Here the semi-structured interview guide can be viewed. It should though be noted that the individual interviews were diverse in their progression, whereas certain issues needed prompting or probing at times in the discussions. At times, when deemed needed, a few questions were added to retrieve deeper meanings or added information.

1. Please explain the current pricing (strategy) of your product/service?
2. How important do you consider the pricing strategy to be to your business model?
3. How much attention has pricing received in the company and do you believe it has been adequate?
4. Do you consider your pricing strategy to be in any way unique on the market?
5. What are the main objectives of your pricing strategy?
6. That the product/service makes a profit (cost-plus objective)
7. Gain market share and/are gain access to market (share-driven objective)
8. To match the willingness to pay of the customer (customer-driven objective)
9. That the price is in line with the value the customers place into the product/service (value-based pricing)
10. How actively have you / did you communicate to your “potential” customers before devising the pricing strategy?
11. How actively have you / did you analyse the price of the competition or substitute products/services? (me: see consistency)
12. How sufficient do you believe the company’s infra-structure to be in terms of financial/accounting systems and does it affect any pricing decisions?
13. Did you feel that all the relevant information/data was used and gathered during the pricing strategy decision process?
14. Are your pricing strategies/objectives today the same as they were when the company was formed?
    a. If not, what was the initial pricings strategy / objective
15. If you changed the pricing strategy, was it initiated by management or board members?
16. When the pricing strategy was devised, where pricing objectives always clear or did they change during the decision making process?
17. How did you deal with uncertainty in making assumptions for your pricing decisions?
18. Which was the main uncertainty factor?

19. How well do you believe the company deals with unknown future factors?
20. What is the authority level in the company in terms of pricing and financial matters linked to pricing?
21. Who is responsible for the pricing strategy and implementation in the company?
22. How involved was the “entrepreneur” in the pricing strategy decision making?
23. Had any management/board member prior experience in pricing strategy making, either in the same industry or others?
24. How involved where there? Did they dominate the decision making process
25. How was the interaction between management and the board during the decision making of the pricing strategy?
26. Where there any organizational or managerial obstacles/conflicts when deciding on the first pricing strategy for your product/service?
27. Is there a formal process in the company regarding the change in the pricing objectives or strategies today?