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Generic strategies in emerging market start-ups

- A case study in the solid state lighting industry

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Summary:

This qualitative case-study examines a start-up company in the emerging solid state lighting industry to explore how management has worked with strategy and what challenges the company faces in an emerging market environment. Porter (1980) suggested the use of his generic strategies to help position the company better against what he refers to as the five competitive forces. It is examined in the study if the generic strategy approach suggested by Porter (1980) can be applied, and what potential conclusions can be made regarding the use of the generic strategies in an emerging market. It was found that implicitly existed a differentiation focus strategy suggested by Porter (1980) and although the use of this strategy does not provide a complete answer as to why the company has survived and prospered in the industry, it does provide an important explanation.

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1 Introduction

Each year, new companies are formed and started. Many times based on a new idea of how to do things or based around a new innovation. Some companies survive and many fail in the first couple of years. There is a wide range of challenges facing young growing companies depending on the industry in which they operate (Napp and Minshall, 2011). Still, some companies even become very successful at what they do and keep growing in the years that follow. There could be many answers as to why some companies make it of course, ranging from good financing, good marketing, excellent people and organization to pure luck and being at the right time at the right moment. For the very successful companies that show consistent year-on-year growth and a good bottom line, perhaps a complex combination of many things result in this outcome.

Many times start-ups that eventually become large and both industry- and world-leading in their field are started in a new emerging market. A good example of this would be Apple that started in a garage in Silicon Valley a few decades ago. Today, a new product release causes frenzy both among consumers and investors and the company operates and influences world-wide.

One emerging industry that is in the process of immense growth and also to some extent already in consolidation is the solid state lighting industry, many times referred to as LED lighting.

As stated by one of the managers interviewed for this study, the strong growth in the solid state lighting industry started at the beginning of this millennium when a technology leap led to both higher light-output LEDs as well as better light quality. The warm white light, or commonly known as the more yellowish light, had long been hard to replicate with LEDs. Over the past few years however, the quality, most times measured in color temperature (CCT) and color rendering (CRI), has improved as well as a continued growth in light output per watt also known as lumens per watt (lm/W).

Company X is a company that operates on the integrator level of the value chain and also as a fixture provider. It offers both assistance with electrical, thermal and optical design for companies wishing to build their own LED fixtures, and also offers a range of standard and modified standard fixtures for various industries. The company was started a few years ago and has grown into a company that today employs some 150 people in the US and China, with projects in most parts of the world. It has grown quite consistently through organic growth to where it is today. This company is an example of a start-up operating in an emerging industry that has performed well in terms of growth and the bottom line for the first soon to be decade of being in business.

1.1 Problem area

The understanding of why some companies become successful has interested not only business owners but also researchers and the academic community. Michael Porter is perhaps the most influential writer when it comes to competitive strategy. He suggests three generic approaches to strategy, cost leadership, differentiation and focus (Porter, 1980). The focus strategy can be divided into differentiation focus and price focus. The basics behind cost leadership and cost focus are the same however the focus strategy applies to a smaller niche market and not industry wide.

Looking at what Porter suggests following one of the generic strategies well would be the best way and only way to achieve above-average returns and to navigate the industry landscape.

Through a literature study I conducted, there has been much research done on the relationship between competitive strategy as suggested by Porter and firm performance. The research field is by no means a new one but there is however a lack of studies focusing on Porters generic strategies in emerging market segments in general and start-ups in emerging market segments in particular. I hence am interested to examine how and if Porters suggested generic strategies are relevant to start-ups in emerging market segments.

1.2 Definitions and terminology

Porter (1985, p 1) defines strategy, or rather competitive strategy as “the search for a favorable competitive position in an industry, the fundamental arena in which competition occurs. Competitive strategy aims to establish a profitable and sustainable position against the forces that determine industry competition”. Earning above-average profits, means that a company is earning a return that is higher than their cost of capital + the industry risk premium (Porter, 1980)

Furthermore, every company has an implicit or explicit strategy. The strategic competition literature aims at assisting the explicit side of working with strategy (Porter, 1980). I have chosen to use the definition of strategy as suggested by Porter for this study.

1.3 Delimitations

There are several delimitations to this thesis. Starting with the literature study, I have limited searches to papers referring to and testing Porters generic strategies and tried to include relevant recent research to the extent possible. This does eliminate studies that attempt to explain performance in general and in emerging market segments with other methods than a competitive strategy approach.

In this study, competitive strategy is treated as a valid tool effecting firm performance. I have hence not evaluated any other theories and factors regarding and possibly contributing to firm performance.

One other delimitation is that the study focuses on one single company in one single emerging market industry and the industry structure will mostly be described through the eyes of the

examined company, because I believe at this point in time, the industry is by no means easy to oversee and describe in a suitable way for the purpose of this thesis since it evolves quickly and conditions change rapidly. It is also my belief that the way the examined company views the industry is the most important factor concerning industry structure for the purpose of this study. The decisions made will inevitably be based on their view and beliefs regarding the industry and its structure.

1.4 Research purpose and questions

The purpose of this study is to investigate further if the generic strategies suggested by Porter are useful for start-up companies in emerging markets, especially with a focus on the solid state lighting industry. Since Company X has experienced double digit growth, double digit return on capital employed with organic growth since inception and been profitable from year one the suggested research questions posed in this thesis is the following:

Can the framework of Porter's theories help explain the outcome in Company X?

And

Are Porters generic strategies relevant and helpful for start-up companies in emerging markets?

1.5 Expected contribution

It is my objective to extend and add to the understanding of Porters theory in general and to fill a gap in previous research to see how the generic strategies suggested fit and can be used in an emerging market industry and particularly for start-up companies that in such an industry may be many.

1.6 Target group

The target group that would be interested in reviewing the study can range from researchers and students to company managers already involved in an emerging market industry as well as those who are considering entering an emerging market industry - particularly those who are participants or potential participants in the solid state lighting industry.

1.7 Disposition

I will during the course of this study introduce the subject, form a theoretical framework based on previous research, conduct interviews gathering empirical evidence, analyse and draw conclusions at the end. Chapter 2, Methodology, describes the nature of the study as well as explaining why certain decisions have been made in examining the subject of this study. Chapter 3, Theoretical Framework, presents the theoretical framework for this study as gathered from a literature study performed. In chapter 4, Empirical findings, the survey and interview answers will be presented. Chapter 5, Analysis, analyses the components important to draw any conclusions for the purpose of this study and finally in chapter 6, Conclusions, the findings of this study will be presented.

2 Methodology

In making sure I cover all aspects of methodology concerning this study, I have used Bryman and Bell (2007) as a source of information for this purpose.

2.1 Research strategy

Two main research strategies exist that are referred to as quantitative and qualitative. In general a quantitative study is one that uses statistical methods to analyze the data collected for the study whereas a qualitative uses other ways to assess the collected data (Bryman and Bell, 2007). In this study, I will be using an explorative qualitative case study with interviews as my primary source of data. I believe this type of study, as opposed to a quantitative study, will better capture the nuances behind why managers in the object of study have made certain decisions, and how they approach and implement strategy.

2.2 Research approach

This study will be based around a deductive research approach hence the research question in this study will be answered by comparing empirical results seen in the light of previous research and an existing theoretical framework that will be described.

2.3 Research design

Snow and Hambrick (1980) put forward four different ways of assessing business-level strategy:

Investigator inference, is an approach to assessing the strategy through interviews with managers in the organization in addition to using other information available such as annual reports or press releases. *Self-typing*, is the approach where senior managers are themselves asked to characterize the business-level strategy based on the researcher's description of the various types of strategy. *External assessment*, is a third approach where after having used the self-typing approach, the results are then reviewed by for example consultants in order to confirm the self-typing assessment. *Objective indicators*, finally is the last suggested approach where only published quantifiable data is used, and hence no weight is put on the views of managers within the organization.

I will use the investigator inference approach because for the purpose of this study, it is not possible to use external assessment nor is it possible to use objective indicators due to lack of publicly available data. Interviews will be conducted with three managers with responsibilities covering production/operations, R&D/sales and customer service/sales respectively.

To form a base for discussion, these three respondents will initially answer a short survey (found in Appendix 1) adopted and adapted from Parnell (1997) to identify briefly if a strategy can be identified and also in the areas where opinions and views may differ, give suggestions for what parts of the explicit or implicit strategy to further investigate through interviews.

2.4 Data collection

2.4.1 Choice of company

Since I myself have been involved in the solid state lighting industry, and have worked with the company in this study, I had prior knowledge that this could be a good company to investigate for the purpose of this study.

2.4.2 Primary data – interviews

The respondents were chosen based on the fact that they represent various activities in the company. All can be said to be concerned with strategy in various ways, either from a CEO and formulation perspective, to dealing with R&D, sales and customer service. Some researchers use only the CEO as respondent, implying that this person would know best how strategy is applied, however concerns among other researchers are that the strategy is perhaps best characterized by asking the questions on various levels of the company, and also to some extent involve external parties such as customers (Parnell, 1997)

I have used the investigator inference approach as suggested by Snow and Hambrick (1980) and questions have been asked in a semi-structured way as suggested by Yin (2003) The semi-structured way means that I am able to ask clarifying questions, and adapt questions based on responses given, to be able to capture the nuances I believe to be important. I used adapted questions from Parnell (1997) found in Appendix 1 to get a quick overview of the strategy and also to identify areas of further discussion. The interviewees were asked questions, in addition to clarifying the short survey, that were based around the factors behind the five competitive forces, as suggested by Porter (1980).

Based on the fact that Company X is still a rather small company, with only a few people in management and middle-management, I have opted to let respondents be anonymous in this study and communicated this to the respondents. It will, I believe, allow them to be more honest in their answers not thinking as much as to how their answers will be perceived by the others in the company. In the following chapters, no names or positions will hence be referred to.

The interviews took place as follows:

Manager 1 – 4 December (30 min), 23 December (20 min), 30 December (20 min)

Manager 2 – 15 December (30 min), 29 December (20 min)

Manager 3 – 11 December (20 min), 31 December (35 min)

2.4.3 Secondary data

The secondary data used for this study contains the Company X website and to some extent articles concerning the solid state lighting industry.

2.4.4 Literature study

The fact that the research field is by no means a new one, makes for an abundance of research material. I took on the task of performing the literature study by using the EBSCO database using key words such as Porter, strategy, competitive strategy, generic strategy, start-up, emerging and emerging market. This resulted in varying degree in more or less results potentially relevant to this study.

2.5 Research quality

2.5.1 Reliability

Using interviews makes reliability, or put in other words, the ability for others to replicate the same results, an important factor to be aware of (Yin, 2003). The source of information is people, with different attitudes, modes, belief systems etc. There may be an unwillingness to exchange some information between managers, and hence the respondents have been kept anonymous as a way to address this. The company name due to request from the investigated company will be held secret, referring to it as Company X.

I believe the use of several respondents within the company of investigation gives a reliable picture of what strategy is used. Even though some answers differed both in the survey and in the interviews, it is evident that much was agreed upon in the company.

One crucial problem that is discussed is the way that strategy is measured and to some extent also the way that success or performance is measured. Key performance indicators can be tampered with, due to different reasons, perhaps not for the purpose of a study such as this, but there are objections to using traditional key performance indicators such as return on assets or return on capital employed (Bergstrand, 2003). I have hence simply acknowledged that the company in the survey has been profitable since year one, shows double digit organic growth and show as an example a double digit return on capital employed.

2.5.2 Validity

The two factors that are important to validity are internal and external validity. The first kind concerned with if I have correctly depicted the views and relationships that exist, and if the potential causality between different phenomena can be said to exist. The second, external, is concerned with the applicability of the results on a more general level (Yin, 2003). I have addressed the internal validity through follow-up interviews with clarifying questions, to remedy this potential problem. Concerning external validity, a single company case study inherently has limitations concerning external validity. I have attempted to remedy external validity concerns by not making generalizations outside the context of this study, and explaining under what circumstances conclusions are made, such as industry and industry conditions.

3 Theoretical framework

This chapter will introduce the research field of competitive strategy, outlining a few research directions and also cover a few studies on results for testing Porter's generic strategy theory. Thereafter the five competitive forces and the generic strategies are explained in detail.

3.1 An introduction to competitive strategy

Bruce D. Henderson, the founder of Boston Consulting Group brings up the lesson of Professor G.F. Gause of Moscow University when beginning to touch on the subject of strategy. Professor Gause published in 1934 results of an experiment where two animals of the same species had been locked inside a bottle (hence quite small animals) with an adequate supply of nutrition. "This observation led to what is referred to as Gause's Principle of Competitive Exclusion: No two species can coexist that make their living in the identical way" (Porter, M.E, Montgomery, C.A, 1991)

Competition as a concept has hence been around for a very long time, throughout evolution and has been around for much longer than the word strategy. Still, competition is at the very heart of strategy and the objective of strategy. Competitive strategy according to Porter (1980) is how to create a defensible position to deal with the five competitive forces that he suggests.

What really spurred interest in, and much research in the field is the work of Michael Porter (1980, 1985) where he proposed some generic strategy approaches based on the market scope of a company.

Whittington (2002) describes four research directions and perspectives on strategy. 1) *The classical view* on strategy, as represented by for example Porter, was as a research field started in the 1960's with works of Alfred Chandler, Igor Ansoff and Alfred Sloan. The classical view represent a belief in rationality and objective decisions with a strong market focus and decisions should be based on analysis to maximize benefits in the long-run. In terms of innovations, Cooper and Brentani (1981) based on a classical view, drew the conclusion that there should be a strong market focus rather than production focus when it comes to new innovations. 2) *The evolutionistic view* with authors such as Hannan and Freeman imply that the environment is often too unpredictable that all managers can do is to adapt as best they can on a daily basis to external conditions. 3) *A process view* implies that decisions are doomed to be forgotten as circumstances change and strategy is more a result of mistakes and learning rather than a rational series of decisions as suggested. This view is represented by for example Henry Mintzberg. Finally, 4) a *system theoretical view* implies that strategy is formed in a social context where it still may be rational to for example not maximize profits and strategies may differ from textbook versions because they do not apply to the specific contexts in which the company operates.

The word strategy, or rather the level at which the strategy is applicable can be further defined. Organizational strategy exists at various levels of a company.

Corporate-level strategy which is concerned with very large picture decisions such as market scope and level of integration (Hax and Majluf, 1984).

Business-level strategy which is concerned with how a company does business and competes in a certain industry (Hambrick, 1980; Beard and Dess, 1981).

Functional-level strategy is focused on the operations side of running a company, and how to maximize the productivity of resources available. These are company function specific and stems from business-level strategy (Schendel and Hofer, 1979)

Porters framework focuses on the business-level strategy.

3.2 Previous research

Strategic management literature has over the decades provided us with various views on possible generic strategies (e.g. Miles and Snow, 1978, Porter, 1980). Miles and Snow (1978) proposed the strategy types defender, prospector or reactor and another example is Douglas and Rhee (1989) who suggested the strategy types of broad-liner, innovator, integrated marketer, low quality, nicher and synergist. Another example being Wright et al (1991) who extended the Miles and Snow typology by adding two combination strategies. The general idea behind these generic strategies is to try to formulate a guide or recipe for companies and executives to not only think around, but also to follow and implement. In research, the Miles and Snow and Porter typologies are the two most common ones (Parnell, 1997)

There are as seen other strategy typologies suggested by other researchers, where they differ from Porter in terms of how many strategies to choose from, what is entailed in the strategies, what they are called and in some cases combination strategies are allowed, and even encouraged for industries where this would be beneficial.

Some have also wanted to add to Porter's five forces by adding a sixth force, as suggested by former Intel CEO, Andrew Grove. He suggested adding a force called complementors, meaning companies that manufacture or provide a product or service that complements a product, which when combined, makes the initial product more valuable or attractive (Hill and Jones, p 50)

For the purpose of this study, I have however chosen to put focus on Porter's model, since he is a very influential writer on this subject with his theories taught at most business schools around the world, and also because I have not found any published papers concerning the use of Porter's generic strategies in emerging markets and the relationship between using that strategy and performance.

Previous studies investigating Porter's model includes Dess and Davis (1984) where they reached the conclusion that organizations adopting one of the strategies performed better than stuck-in-middle companies. Miller and Dess (1993) reached the conclusion that performance varied significantly. Wright et al (1991) saw that companies that outperformed the others were those that used a combination strategy, hence mixing cost-leadership and differentiation. Most surveys agree that using one generic strategy will lead to better performance than being stuck-in-middle. However, there has been no consensus reached regarding the use of combination strategies, hence mixing cost leadership and differentiation. What is important to remember is that surveys are imperfect in the way they investigate the real world, and they are

only a snap-shot of reality at best. It is hence not surprising that for various time periods, and various industries, results have differed. It is of course also a problem that even though a company perceives itself, and by others as differentiating, competitors may differentiate in a different and better way. A meta-analysis by Cambell and Hunt (2000) indicates that although no definitive conclusions have resulted, results are in favor of Porters ideas and model, but perhaps need to be further refined.

Summarizing the field of research concerning strategy is difficult, because there are many directions, from the classical view to other focuses. Within the classical view are different ideas concerning typologies, how to measure strategy and so on. Since the topic of my study however is not widely covered by researchers, the main portion of my theoretical framework will come directly from the works of Porter with his five competitive forces, the generic strategies suggested and his ideas around emerging markets will be presented below.

3.3 Porter's five forces and industry structure

Porter suggests as part of his theory that there are five competitive forces that form the rules of competition: “the entry of new competitors, the threat of substitutes, the bargaining power of buyers, the bargaining power of suppliers and the rivalry among the existing competitors” (Porter, 1985, p 4). These forces can change over time as an industry evolves and are different depending on industry specific conditions. The combination of these five forces is what companies need to navigate their business around in order to be able to earn above-average returns (Porter, 1980). Porter is of the opinion that “the five forces determine industry profitability because they influence the prices, costs and required investment of firms in an industry – the elements of return on investment” (Porter, 1985, p 5). The five forces and the factors determining the intensity of each force as suggested by Porter (1980) are outlined in figure 1 on the next page.

Porters Five Forces

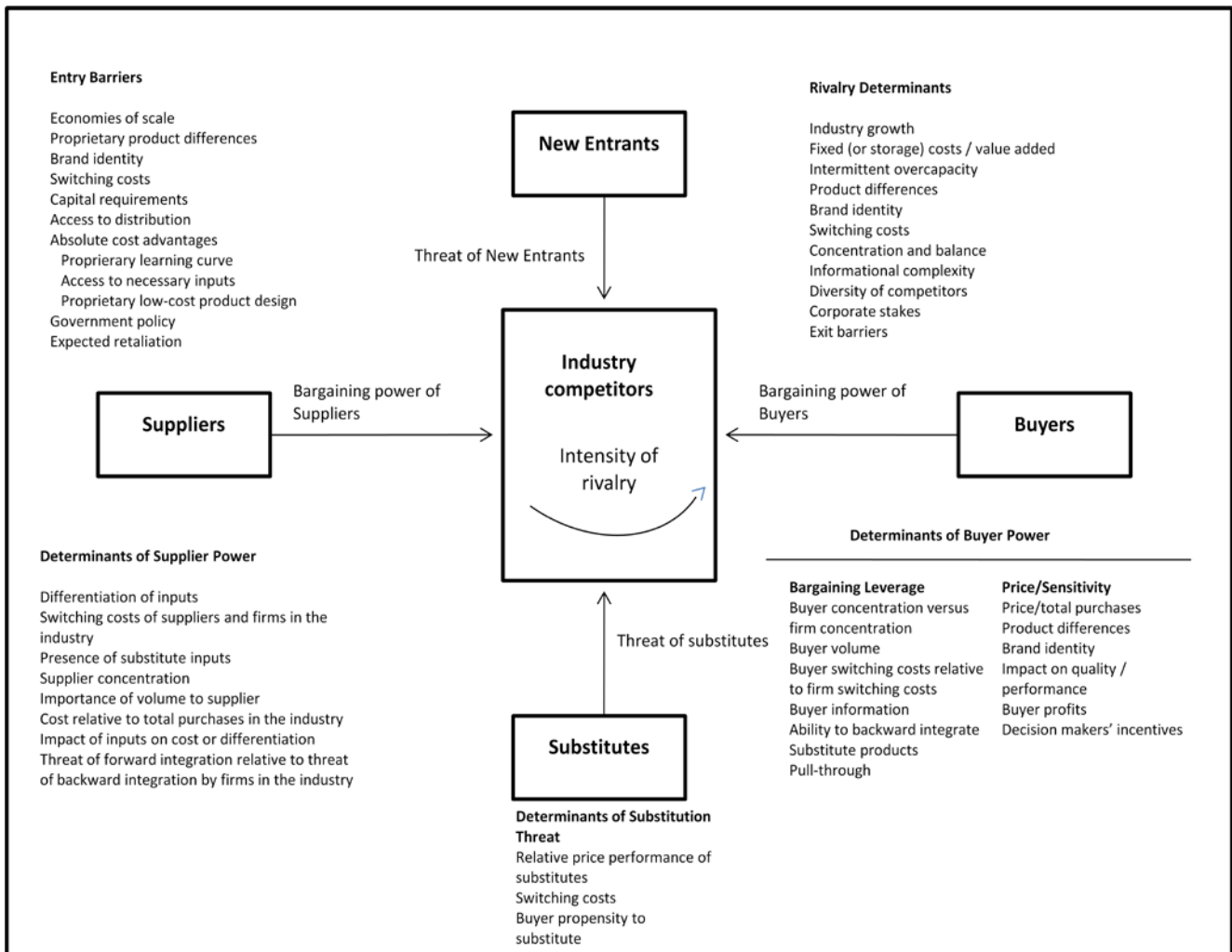


Figure 1. Recreated from Porter (1985, p 6)

3.3.1 The Entry of new competitors

How large of a threat new entrants into a market is, depends on two things: the barriers of entry and the expected response from current market players. There are a number of important barriers to entry that should be taken into account when analyzing an industry (Porter, 1980)

Economies of scale, which is the traditional concept that both from a production perspective where large volumes can provide lower per unit costs, but also from a company size perspective where various functions can to some extent share costs. Should a new entity wish to enter a certain market where economies of scale could be said to prevail and an important factor to compete, either the new entrant would have to make large investments or come in on a smaller scale, however, with the weight on their shoulders of having a higher production cost and hence a disadvantage (Porter, 1980).

Porter (1980) also refers to, in his discussion on economies of scale, that there are certain intangible assets that can be shared between various business units in a company. The cost of

building up a brand name for example can then be applied company-wide and provide shared value. Furthermore, markets that are *highly vertically integrated* can also be a barrier of entry to new entrants. In this situation, a new entrant must either integrate themselves, or in a worst-case scenario possibly not have access to important components, whereas competitors potentially only provide these components in-house in their vertically integrated company.

Product differentiation Is another barrier of entry into a market, and product differentiation being defined as “brand identification and customer loyalties, which stem from past advertising, customer service, product differences or simply being first into the industry” (Porter, 1980, p 9). Building a brand takes time, effort and not least investment and should the entry fail it is not likely possible to recover any value from the brand investments since it is an intangible asset. The mix of entry barriers may change from industry to industry and also include *access to distribution channels*, which is vital in for example the consumer goods business. For some industries, *capital requirements* may be too high to allow entry other than from a few major players. Investment into production facilities and working capital for e.g. customer credit may prove too high even if capital markets are functioning and ready to lend. The risk premium on lending to an entrant would provide an advantage for the existing companies already operating in the market (Porter, 1980)

In addition to the discussion on economies of scale, Porter (1980) also points out the fact that there are a number of instances where current market players may have *cost advantages that are not dependent on scale*. These advantages include proprietary product technology, access to raw materials, favorable locations, government subsidies and learning or experience curve. Hence, there can be cases where product knowledge, proprietary production technology for example, that has been achieved through experience in an industry and can be kept unknown to entering firms, this can also provide a barrier to entry to this specific market.

The influence of *government policy* cannot be understated either in some markets where regulation and licensing requirements are obvious, or for example when it comes to access to important raw materials. The regulations imposed on pollution for example could in an indirect way establish a barrier of entry in the sense that it possibly requires a higher capital investment into production technology and the production facility.

In addition to the described barriers of entry, the players in an industry could of course also respond and retaliate to new market entrants. The expectation that a company considering entering a market has on the response from current market players also can affect the threat of entry. A new player may not enter the market if it is expected that current players will respond in a way that creates unfavorable market conditions. Porter (1980) brings up a few things that lead to the conclusion that new market entrants will be retaliated upon; for example that there is a history of this behavior, that current players have substantial assets such as excess cash, that there are established players with a dedication to the industry in the sense that they have much illiquid assets invested in it, or that there is very slow industry growth thus limiting the ability to absorb new entrants without taking business from current players. What is referred to as the entry deterrent price should also be considered when contemplating these matters, or rather, if a company expects to be able to price for an expected above-average return both

initially and long-term, that would lead to entry. Should the entering player be forced to price equal to or even below to enter the market, this would likely not inspire entry into that particular industry.

3.3.2 The threat of Substitutes

Businesses in a certain industry do not only compete with other industry participants, but on a larger scale with any product or service available in other industries, where the function of the product or service is equal or very similar. Looking at the competition and competing products, in terms of substitutes, closest attention should be paid to those that are available in industries with high profitability and those substitutes that increase the price to performance ratio compared to the original products. In deciding how to approach the threat of these substitutes, businesses involved in an industry can opt for two different ways – either they adapt a strategy that accepts the substitute as an important force, or they can try to improve position (perhaps also with other industry participants) through for example increased advertising (Porter, 1980).

3.3.3 The bargaining power of buyers

Buyers present in an industry, exert influence in terms of trying to push down prices or getting more products or service for their money, ultimately reducing the profitability of an industry. Just how powerful and influential buyers can be in an industry are determined by a variety of factors. For example if the products are standardized or undifferentiated there are always alternative suppliers, especially when there are no or low switching costs involved in using another supplier. Should profits be small for the buying company, that increases incentives to try to push down prices of their inputs, and especially if the product or service in question is a considerable part of the buying companies input costs. This scenario would likely have the buyer spend much effort finding ways to lower costs.

Furthermore, if a seller has high fixed costs related to supplying a certain product, and a significant portion of that product or service is sold to a single customer, that inevitably makes that buyer very important for the seller, and the buyer can put much pressure on the seller. In a scenario where the buyer has full insight into what costs are involved etc, this also makes it easier for the customer to push down prices. Should the buyer be a larger company, there may also be a risk of so called backward integration, or in other words that the buyer might start producing the good or service themselves if the seller is not able to meet price requirements and the buyer is convinced they are able to produce themselves more cost-effectively. Coping with the potentially large bargaining power of buyers, companies, to the extent it is possible to be selective, can select customers and customer segments where the ability to be very influential related to the above mentioned factors, is limited (Porter, 1980).

3.3.4 The bargaining power of suppliers

Suppliers into an industry and the industry participants can be an influence to be reckoned with under the right circumstances. They can threaten to increase prices of goods and services, or offer less for the same amount of money to the industry participants. Suppliers have a strong position if the possible supplier group is consolidated and dominated by a few large players, creating somewhat of an oligopoly market situation, or if the industry does not

represent a large portion of the overall sales of the supplier. Should the supplier product or service be an important input into the buyers product or business, this also gives the supplier great power, especially if it is not possible to store or stock the product with the buyer. In case the supplier product or service be highly differentiated and involve high switching costs, this also gives the supplier a strong position and lastly, should there be a risk of forward integration, or rather, that they supplier starts manufacturing the end product, that is also a circumstance where the supplier has great bargaining power (Porter 1980).

3.3.5 Rivalry among the existing competitors

Pressure or opportunity to gain a more favorable position in the marketplace may make industry participants prone to rivalry, which could manifest itself as for example price competition and increased advertising from various parties. It could also take the form of a company increasing warranties or improving customer service or perhaps the launch of a new product. Fierce rivalry, in an industry where participants are in fact mutually dependent, may leave the industry in a worse place concerning industry profitability overall. Some competitive moves such as price competition lead to lower profitability, whereas increased advertising campaigns from industry participants, actually may be beneficial, due to an increased total demand for the industry products. How intense rivalry will manifest itself in an industry depends on a few factors such as how many participants are active in the marketplace. An industry with few players with similar resources may be prone to actively battle each other. An industry with very few players makes it easier to keep track of the competition and to be more disciplined in terms of maintaining a certain position in the market. Should industry growth be slow, the industry will inevitably be a game of market share and growing a company will involve gaining market share and hence stealing business from other industry participants. In a fast growing market however, it is more likely that management are more concerned with keeping up growth with the overall market growth and financial resources are invested into achieving this (Porter, 1980).

An industry with high fixed or high storage costs creates strong incentives for all industry participants to fully utilize capacity, which may involve reducing prices if there is excess capacity. Fixed costs relative to value added is of significance and not how large of a proportion fixed costs are of total costs. Companies with high input costs, adding little value could feel a pressure to reach capacity maximum to make ends meet even if the proportion of fixed costs is low compared to total costs. The same situation can happen in industries where the end product is either difficult and expensive to store or even impossible to store. Price cuts may then quickly happen just to find buyers for the products (Porter, 1980)

Another source of strong rivalry is if there is no differentiation or switching costs present in the industry, leaving participants forced to compete with price and perhaps service. If there are high strategic stakes involved for industry participants, for example that a company for some reason has an interest in creating a position in an industry for various reasons, or being part of an overall business strategy, companies may enter and compete with a lower requirement than normal for returns. Another reason why intense rivalry may occur is if there are economies of scale necessary to compete in the market, which means that if a company

enters, the industry capacity will be augmented in a large increment possibly resulting in a disruption of the supply/demand balance, leading to a potential price war (Porter, 1980).

An additional factor contributing to potential intense rivalry is if there is a presence of high exit barriers. This may lead to industry participants competing with under-average returns or even negative ones, at least for some time. One exit barrier could for example be that a company employs very specialized assets with low value if liquidated, or high fixed costs that are difficult to get rid of. A company could for example still be forced to supply spare parts, but without the main business of new sales, the spare parts business alone would not fare well. Another example would be a highly vertically integrated company where the industry is of great overall strategic importance, or even the human factor with management being heavily invested into the success in a market. In the presence of high exit barriers, excess capacity prevails and can hurt industry profitability. Over time as with so many other things, the factors involved in creating an intense rivalry environment may change. As an industry matures for example, it is likely that rivalry increases (Porter, 1980)

3.3.6 Summary of Porters five forces

The use of competitive strategy is a tool for creating a defensible position against the five competitive forces. It is used to mitigate or offset the influence that for example suppliers and buyers have in an industry, or perhaps to make competitive moves to make entry barriers higher. Dealing with the five forces, competitive strategy can be used in various ways and a few main approaches exist. It can be used to position a company in a way that its capabilities are best put together and in play to protect against the existing forces. It may also be used to influence in various ways the balance of the forces that prevail in order to improve company position in an industry and lastly, it can be used to try to anticipate changes in the underlying factors behind the competitive forces in order to stay ahead of the competition, adapting a strategy best suitable for the conditions that are anticipated (Porter, 1980).

3.4 Porter's three generic strategies

Various industries can, depending on the mix and strength of the five competitive forces, be different in terms of industry profitability. To cope with the influence of the five forces, Porter (1980) suggests the use of the following generic strategies in order to perform better than the competition and to create a defensible position against the five competitive forces.

3.4.1 Cost Leadership

Cost leadership, or rather being able to offer a product to a market at the best price often involves the need for a high market share. Also, more favorable access to raw materials compared to the competition can be a factor involved. Achieving the overall low cost position involves the need for efficient scale facilities, often with high initial capital investment, as well as avoiding marginal customer accounts and minimizing costs in various areas of the business such as in R&D, advertising and service. The cost leadership strategy applies industry wide.

Looking at the five competitive forces that the cost leadership strategy is constructed to defend against, a cost leadership position defends the firm against powerful buyers since buyers only can drive down prices to the level of the next most efficient competitor. It provides protection against supplier power giving a higher comfort zone in terms of dealing with higher input costs. Achieving a cost leadership position involves activities that often form high barriers of entry, such as high initial capital investment, protecting against new entrants. Being the cost leader provides protection against competitor rivalry since the competition with higher costs can only compete to a maximum low without earning negative profits, while the cost leader continue to earn above-average profits, even at the competitor's lowest price level. Offering the lowest price often also protects against substitutes already offering great value. Achieving a cost leadership position hence protects against the five competitive forces in a good way and the cost leader pursuing this strategy is able to enjoy above-average returns. Once achieved, profits can be re-invested into maintaining the position.

3.4.2 Differentiation

Another industry wide strategy is that of differentiation. Differentiation means that a company for example focuses on brand image, technology that sets a product apart from the competition or a high level of customer service. It may also involve differentiating the product or service in several ways, for example through an exclusive distributor network as well as having unique product features. What is key to the differentiation strategy is that the product or service is perceived as unique industry wide, although all customers by definition may not purchase it due to price or exclusivity.

It should be noted that simply because a company pursues a differentiation strategy, it cannot ignore costs. Cost however, is not the primary strategic target.

Differentiation as a strategy in the same way as cost leadership aims at creating a defensible position against the five competitive forces. If achieved, it protects against buyer bargaining power through the fact that buyers lack clear alternatives, and hence have less power and are less price sensitive. It also protects against new entry since customer loyalty and the

uniqueness of the product or service offering makes it hard to replicate. It provides a defense against competitor rivalry because of the same brand and customer loyalty, resulting in lower sensitivity to price. Differentiation results in higher margins, which means more of a cushion to deal with supplier bargaining. As the last piece of the puzzle, differentiation when achieved, also position the company in a favorable way against substitutes through for example technical features. Differentiation often involves having customers perceive a certain exclusivity in the product, making a high market share hard to achieve at the same time by definition. It is quite usual that the activities necessary to build a differentiation strategy position are expensive such as advertising, production technology, building brand image, providing higher service levels etc which makes it quite contrary to a cost leadership strategy. Even though differentiation is quite different in terms of approach and strategic objectives, it does in the same way as cost leadership provide a defense against the five competitive forces (Porter, 1980).

3.4.3 Focus

The strategy Porter (1980) refers to as focus, is sometimes divided into two different – cost focus and differentiation focus (Hill and Jones, 2004). The main elements of the differentiation strategy or cost leadership strategy applies to the focus strategy as well, however it does not apply industry wide, but rather in the focus strategy, a company is targeting on a niche market, for example a particular buyer group, geographic market or product segment. The focus strategy is built around servicing a certain niche market in a good way. The scope of the business is hence smaller for a company pursuing a focus strategy. A company pursuing a focus strategy may perhaps not achieve a differentiation position, or cost leadership position for the market as a whole, however, it may be possible in the certain niche market they are interested in and see potential in. Whether pursuing a cost focus or differentiation focus, the focus strategy provides the same defenses against the five competitive forces as would the respective industry wide cost leadership or differentiation strategies.

3.4.4 Stuck-in-middle (pursuing more than one generic strategy)

Being stuck-in-middle as Porter (1980) refers to, is another way of saying that a company has not been able to, implicitly or explicitly, develop the company in any of the strategic directions. This leads to an undesirable position in the market where the firm is not able to compete with low cost companies, neither can it compete with companies that have achieved industry wide differentiation and they have not been able to develop a cost or differentiation focus towards a niche market. For a company in this position, it will take time and effort to achieve a better strategic position, and depending on the industry and the capabilities of the specific company, one or the other of the strategic directions may be the most suitable.

In some industries, stuck-in-middle may mean that smaller differentiated firms and the large low-cost firms are the most profitable, whereas the mid-sized businesses are suffering from low profitability. In this case, there would be a U-shaped relationship between market share and profitability, however, there are differences to every industry, and there is no single such relationship that can be shown for all industries (Porter, 1980)

3.5 Risks of the generic strategies

Porter (1980) describes competitive strategy and the generic strategies as ways of creating defenses against the competitive forces in an industry. There are risk involved in making one or the other choice because the industry can and will evolve and the chosen path may no longer be the best. Also, the company may fail to achieve the strategy.

For the cost leader, or a company aiming towards cost leadership, there are risks involved in investing in modern production capacity and staying on top of new technologies. The benefits of economies of scale do not just happen but are rather a result of much effort and investment. One major risk is that new technology appears which makes past investment obsolete or newcomers in the market are able to imitate in an efficient way. Focusing on the low-cost position may make the company less attentive when it comes to necessary product changes dictated by market trends and higher input costs could make the difference in price between the low-cost product and a differentiated one not large enough to be of such magnitude that the low-cost option is chosen (Porter, 1980).

For the differentiating firm, the difference in price between a low-cost product and the differentiated one, and changes to this relationship is also a risk, however, the inverse relationship exists, where a higher difference in price may mean that customers are no longer willing to pay for brand image, features and service and opt for the low-cost alternative instead for large savings. It may also be that the differentiating features are no longer in demand, which leaves the differentiated firm in a poor state. Imitation is also a risk for differentiators, which can be a problem as an industry matures.

The company pursuing a focus strategy face another set of potential risks. The demand of the target market may become more similar to that of the overall market, which may leave competitors that operate industry wide in a more favorable position either from a low-cost perspective or a differentiation perspective. It may also become less cost effective to only serve a narrow target market for one reason or another, or perhaps competitors are better at narrowing the target market, finding submarkets in the already narrowly scoped market (Porter, 1980)

3.6 Competitive strategy in emerging industries

An emerging industry can be defined as “newly or re-formed industries that have been created by technological innovations, shifts in relative cost relationships, emergence of new consumer needs, or other economic and sociological changes that elevate a new product or service to the level of a potentially viable business opportunity” (Porter, 1980, p 215). The most distinguishing feature of an emerging market would be that there are no real rules in place for the industry, resulting in both a risk and opportunity (Porter, 1980)

Porter (1980) points out a few factors affecting the structural environment in emerging markets, even though the specific characteristics of two separate emerging markets can differ widely. Technological uncertainty exists, which means that there is no certainty on which technology that will prevail and that should be used and a lack of standardization. Emerging markets are further a place of strategic uncertainty, meaning there is a lack of information on

who the competitors are, market data is limited and the various players involved are using a wide mix of approaches to market positioning, using various production methods and configurations for example. It is also common that characteristics of customers are not widely known. High initial costs are also common before industry volume and e.g. learning curve in production make for cost reduction.

The customers in an emerging industry are by definition first-time buyers and to a large extent unaware of basic product characteristics and once informed not sure if the pros outweigh the cons. This is a large marketing task for a company in an emerging industry and often coupled with bottlenecks that appear when firms are pressured to acquire new customers or produce the products they do have on order. Problems in a firm are often not dealt with as a result of expectations of the future based on a rigorous analysis, but rather in a quick way to avoid bottlenecks. As a result, industry conditions are often formed by chance (Porter, 1980)

In terms of what problems are constraining the industry development, Porter (1980) points out shortages of raw material, or steep increases in price of those materials, to some extent because of the rules of supply and demand. There is often also a lack of infrastructure in terms of distribution channels, skilled employees and complementary products. The technological uncertainty combined with a lack of standardization of technology and products further adds to supply problems.

The confusion among customers is often great, with industry participants having a hard time agreeing on technology, making claims in different directions. This confusion can impede industry growth since buyers may find it both difficult and risky to purchase. Some customers also wait for later developed products, when the rate of technological change has decreased, and potentially prices have dropped as well. Product quality can be a deterrent for buyers since many new firms may have entered an emerging market, and with no standardization and lack of technological agreement, quality may be poor in some cases and even if it is only a few industry participants providing poor quality products, this may affect the whole industry in a negative way (Porter, 1980).

The strategic choices to be made in an emerging industry are made in an environment where the rules of the game are undefined, and there is much uncertainty on many levels, be it technology standardization or anticipating competitor moves, are difficult. However, the uncertainty also bring much strategic freedom in trying to shape industry structure. A firm should try to shape the structure of product offerings, marketing approach and so on in a way that in the long-run benefits the company best, should they be successful in creating and influencing a certain structure. In the initial phase of industry development, a company has an interest both in the success of the industry and in the success of the company. Buyer confusion and industry image greatly depend on other industry participants as well. Assisting in the standardization of the industry, and making customers aware of substandard quality products, but at the same time without speaking badly of competitors are ways a company can assist itself in a way. Working at conferences and with industry associations can be helpful as well (Porter, 1980).

With the technological uncertainty, there are of course firms promoting their technology to become industry standard, however, working against standardization in the sense that another technology will prevail, is a hard judgment to make. Perhaps standardization even of another approach will be more beneficial in the long-run than pro-longing technological uncertainty. As market penetration and industry maturity increases, companies must shift towards more of a company outlook with more focus on their own activities (Porter, 1980).

4 Empirical findings

4.1 Company background

Company X originally started as a project for the US Navy to develop technology to replace fluorescent fixtures with solid state lighting onboard various vessels both in service and for new-builds. In 2003, some of this technology was commercialized into the marine industry with a focus initially on mid- to large size exclusive yachts. Over the years, products have both developed, been improved, increased in variety and also new market segments have been developed and today the marine segment only constitutes about 10-15% of total sales. One of the managers states that it was a necessity to develop and enter new market segments because the financial crisis led to a steady decline in the marine industry worldwide and some products Company X already had developed could also be applied in other market segments with little or no modification. It is also the ambition of the company to continue to grow and expanding into new market segments or sub-markets has been a natural step in this process.

At the moment, Company X is involved in the marine/transit, military, architectural/area, retail/refrigeration and elevator/escalator businesses providing standard and modified standard products through direct sales, representatives or distributors. In addition to the own manufacturing of products under the Company X brand name, the company is also assisting companies wishing to build LED products, but lack the know-how to do so. As part of this effort, Company X is a certified solutions provider to some of the large LED-chip manufacturers, assisting customers with the integration of the chips into products.

When asked about what sets Company X apart from the competition, the different managers all are quite clear that it is the integrated approach of taking care of all stages of the technological development from initial electrical design to final product, and having total control of this entire process, enabling the company to build better products. As one manager states, it is largely the technology and quality that sets Company X apart from competition and our dedication to understanding customer requirements and also working along our customers.

4.2 The solid state lighting industry

In speaking to the interviewed managers, the picture emerges of the LED industry, or rather the solid state lighting industry, as one that has grown immensely in the past decade. It has existed for a few decades as a concept, however, the general lighting applications have only been achievable with developments of the technology around the start of the new millennium. LED is inherently more expensive than traditional technology, making the amount of actual fixtures less, but in terms of turnover, the industry is becoming a force to be reckoned with although market penetration in terms of acceptance and use in all segments of the lighting industry has yet to happen. The industry is comprised of chip manufacturers, that develop and sell LED chips, and they to some extent are also vertically integrated, such as Philips, also making end products for both the professional and retail market. At the next level of the value chain, there are what could be referred to as integrators – companies that put the LED chips onto a PCB board and make it work. Integrators can also vertically integrate and not only build the light engine but also build the entire fixture however vertical integration to the same

extent as for e.g. Phillips is not possible since integrators do not manufacture the LED chip. Third, you have the fixture manufacturers which could be for example traditional fixture manufacturers that may buy light engines designed and build by integrators to fit their product.

There is much technological uncertainty in terms of how best to adopt this new technology. Some focus on building replacements that can retrofit into where the old lighting technology was fitted previously. There are however downsides to this since the technology is very different. Some focus on building dedicated fixtures for the LED engines, with the characteristics of this technology in mind. The way that companies solve dimming and integration also differs greatly and there is a lack of standardization in the industry making it difficult for buyers. Industry development is very rapid and what is true today could very well be completely obsolete next year. One approach that companies have taken to mitigate problems with adaption among customers is to use a modular approach to facilitate transition (Dirjish, 2011)

LED stands for Light Emitting Diode which is a way to create light that differs much from previous technologies such as incandescent light bulbs, fluorescents and halogen. The growth in this market segment of lighting is to some extent driven by external factors such as government regulation to phase out high-wattage incandescent light bulbs as one manager points out. So far in the European Union, the 100 watt bulb is banned and lower wattage bulbs are to disappear in the years to come. Other geographic areas such as the US also have plans in place for phasing out high-wattage incandescent. Not least is it also customer driven in a world where the price of energy is increasing and since solid state lighting technology can dramatically lower energy consumption, it is a source of potential savings for the end users of these products, as one of the other managers points to.

The solid state lighting industry consists today of many players, both large like Osram and Philips and from an industry perspective as mentioned previously there are two types of players in the initial value chain - LED manufacturers and integrators. The actual LED chip is manufactured by a small group of industry participants. Three major players in the market are Cree, Nichia and Lumileds (Philips). To some extent Cree also manufactures some LED fixtures and Philips is one of the largest players in the global lighting industry even in the world of traditional lighting technology. At the second stage of the value chain, there are integrators – companies that buy LEDs and integrate them into an electrical design and potentially also into a fixture. These companies provide the products with features such as dimming and control, heat design, optics and so on. To some extent integrators work with the LED manufacturers as approved partners to help “old-world” lighting companies enter this emerging market. A traditional fixture manufacturer could for example decide to use an LED chip from Cree and use one of the Cree approved partners to build the actual technology around the LED. The integrator then provides components that can be fitted into the fixture of the fixture manufacturer for example. This is one common approach and some of the integrators not only focus on assisting other companies on a component level, but rather also as a complete fixture provider.

4.3 Industry structure

4.3.1 Threat of entry

The solid state lighting market today is highly fragmented with many new players having entered. Some companies could be more characterized as electrical manufacturers rather than traditional lighting fixture companies. There is also a wide number of technologies in the products with uncertainty of what technologies that will prevail. There are competing modular systems available today as an example of this stated by all the managers. Economies of scale is certainly a factor to be reckoned with, providing benefits to large vertically integrated entities, however, since there is a lack of standardization in the market and it is possible to buy off-the-shelf components to assemble into a product, the barriers of entry in general are not massive, which has been experienced by Company X with many new unknown competitors entering the market place.

4.3.2 Bargaining power of suppliers

With the financial crisis came lower stock levels and longer lead times for electrical components, giving suppliers a beneficial position once the market started picking up again. Also, the introduction of LED televisions spiked the demand for LEDs, making it increasingly difficult for integrator companies to get supplies of the LEDs they desired and needed. Being an approved partner to some of these major chip manufacturers, does however give Company X a favorable access to LED chips and the general shortage trend that was a concern for a while has also improved industry wide. For the LED chip manufacturers that are highly vertically integrated, that fact does provide a benefit to them since they sooner than anyone else get access to their newly developed LED chips and other technology. Many of the electrical components are standard products, with low switching costs and price of LED chips are decreasing.

4.3.3 Bargaining power of buyers

The bargaining power of buyers can be characterized as quite strong since there are so many different products available in the market, especially coming out of China. Buyers are used to purchasing technology such as incandescent light bulbs and halogen. Although quality differences existed in these technologies as well, since buyers are not accustomed to the LED specific technology and often lack good information on how to compare LED products, coupled with many different messages from competitors, industry buyers in general often compare very cheap products to those with more technical features. This puts much pressure on Company X to both educate customers, and at the same time try to be able to offer products that are not differ on extreme levels in terms of price difference to the competition.

4.3.4 Threat of substitutes

Since customers are to some extent uneducated on what the benefits of some of the technical features offered by Company X, they sometimes see cheaper very simple products as potential substitutes. This continues to improve however, as customers are becoming more educated both by Company X, but also by more information being available to buyers and companies that have a quality approach to the industry all help in educating the market. Some customers still see traditional lighting alternatives as substitutes, even if they do not provide the same

potential benefits, however, still in many general lighting applications, the function of the product is the same, hence providing light. Especially with the poor economic situation in the past few years, Company X has had several potential customers that in the end, due to the higher initial investment have opted for traditional technology, even if payback times would have been acceptable in a market environment with better financing capabilities. The shortage of financing to some customers has been an issue, resulting from what is generally referred to as the credit crunch.

4.3.5 Rivalry among competitors

Product launches by companies in this industry happen more or less daily, and new technical features are introduced rapidly. There are participants in the market, as one of the managers mention, trying to build market share, however sacrificing profitability to do so. One example mentioned of this would be for example Lighting Science Group, a traded US company that in 2010 had a higher cost of goods sold than turnover. Should financing dry up, these types of competitors will disappear, however, they are a force to deal with at the moment providing the market with products at below cost.

4.4 Survey results

Three respondents were asked to answer twelve questions regarding various strategy domains to bring out present focus, future intentions and customer perceptions in these areas concerning strategy. Of the twelve questions answered by the respondents, there were a total of 4 answers indicating a cost focus strategy, 28 answers indicating a differentiation focus strategy and 6 answers indicating a firm that is stuck-in-middle. A clear majority of answers hence indicate that Company X is pursuing a differentiation focus strategy. When asked about the questions where answers differed somewhat, in clarifying what they meant it became clear that they all had the same basic views, and the fact that some answers differed was more a question of having different understandings of the questions. Having interviewed all three managers, all answers indicated a differentiation focus strategy although there were areas such as improving efficiencies versus focusing on innovation where two of the managers felt that these went hand in hand. “To be able to continue to offer value we must focus on innovation and providing customers with tailored solutions to their needs, but also focus on improving efficiencies in order to capture even larger parts of our market”, as one of them put it.

When interviewed, all respondents state that there is a written strategy that is pursued and followed, and matters concerning strategy are frequently discussed in meetings. It is not however discussed in terms of any typological framework, but rather issue by issue. Action plans are in place based on a three-year plan formed by company management. In terms of Porters five forces, these do not exist in the sense that they are discussed and referred to by the same name as Porter suggests, but the results of the five forces are dealt with. When approaching clients, the threat of substitutes does not only come from other solid state lighting products, but also from traditional technology and technological confusion among customers is a problem. Buyers are quite strong in the sense that the market is flooded with cheap, sub-quality products from China and there are a wide number of new entrants in the market making it difficult to assess the competitive environment from one quarter to the next.

In terms of deciding what submarkets of the solid state lighting industry to enter, this has largely been a result of potential customers approaching the company, and after having analyzed the submarket and also how Company X with the standard technology developed could have a differentiating position in the submarket, the decision has been made to enter or not to enter. The focus has been on markets where the solid state lighting technology offers large benefits in general compared to traditional lighting technology, and the specific technology features developed by Company X offer the most value to customers. Also, it is professional buyers, rather than consumers to a large extent operating in the customer segments of the chosen submarkets. Very few of the products reach the retail market, even though a few do through especially marine resellers.

In terms of developing the technology in the industry and shaping industry conditions, as one manager states, is hard for a company of this size. “Many of the large vertically integrated company are spending considerable resources on this, but what is important for us is to follow the development closely and also make sure that new regulations and standardization is adapted to”. The LED chip manufacturers are ultimately the ones driving industry development. Company X works hard to be able to offer the most value in the submarkets, by offering a quality product with proprietary technological features that offers the most value to customers and that includes being able to integrate to various control systems largely available in the market.

5 Analysis

Analyzing how Company X fits into the Porter model and if so what potential explanatory power this fact has in the growth and shall we call it success, or at least survival, with good profitability, of Company X is not an entirely easy task.

Looking at the industry structure, in terms of the five forces, there are both opportunities and factors constraining industry profitability in general. The assessment according to Porter is the way to determine potential industry profitability, and regardless of high or low returns in the industry, using a generic strategy is the way to earn above-average returns for that industry. Looking at what explanatory factors that could be involved it is evident that the industry is in a rapid growth phase. Many companies are entering the market and product development is fast. Porter suggests that one trait of an emerging and fast-growing market is that managers are very concerned with simply keeping up with growing business at the same pace as the industry. At the same time, as all managers at Company X point out, competition is fierce, not only from reasonably equal alternatives, but also from sub-standard products, that in the light of buyers lacking enough knowledge, are seen as potential substitutes. High initial investment costs, or rather switching costs from traditional technology to solid state lighting also poses a problem. Operating in a fast-growing market alone is not something that could explain why Company X has been able to grow and prosper so far in the solid state lighting industry. There are companies in the solid state lighting industry that have not survived, so simply operating in a growth market is not a factor that can be depended on in explaining how Company X has managed to continue organic growth with good profitability since inception.

It is evident that Company X during its growth has been informed in one way or another of opportunities in various sub-markets and after having analyzed how Company X with the features they have been able to offer and develop could find a profitable niche in that market, decisions have been made. The rational approach can certainly be said to correspond well to the classical view of strategy that Porter represents. It could be noted however though that initial approach to find these sub-markets, has not been entirely rational in terms of performing an industry wide analysis to identify these sub-markets or niches but rather sometimes been a result of existing contacts and referrals.

Looking at the five competitive forces and how they affect Company X, it seems the company has chosen markets where in an easy way to describe it, they are able to offer superior value. This, in my view, is another way of simply describing the fact that they are operating in sub-markets where they had the ability to mitigate some of the overall problems concerning the five forces that they would have encountered in the industry wide solid state lighting industry.

Industry niche by industry niche, when having discussed with the managers, it is clear that decisions have been made to enter sub-markets where buyer sophistication is higher, the major companies are not necessarily involved because the market is too narrow and the benefits of switching to solid state lighting technology has provided great benefits. These choices seem from a Porter framework perspective make for less bargaining power since

buyers understand in a different way the technological benefits of Company X features and products and as a result differentiation can be possible. The rivalry among competitors, although intense, is mitigated by not operating in sub-markets where the major players are necessarily involved, also giving a company of Company X size a better chance to stand out and make themselves known. The threat of substitutes, although a potent threat, is mitigated by targeting more of a professional audience, and also sub-markets where the time frame for recouping an investment into solid state lighting is reasonably fast, making traditional technology less interesting as a substitute. The professional customers in a better way also understand how the technological features in Company X products assist in making the pay-back a more certain exercise as opposed to in cases where sub-quality products would be used.

The threat of entrants although a noticeable threat, is to some extent mitigated by the fact that Company X have chosen sub-markets where they have the ability to have good contact with the buyers building rapport and reputation. The final force being supplier power, although not being able to make any known moves to for example get cheaper prices, the company since it is an approved technology partner to some of the major LED chip manufacturers gets access to some new technology to some extent in a quicker way than competitors not working with the chip manufacturers in the same way.

Survey results initially revealed what looked like both a fairly strong consensus on how the company approaches and implements strategy and also some differing opinions regarding what the main focus should be in choosing between innovation and improving efficiencies. The interviews however made the results even more matching, but seen from a perspective of the Porter framework, it is mentioned that a differentiation focus does not allow companies to simply forget about costs and also Porter does mention that for emerging industries there is a learning curve and this is certainly worked on within Company X.

Looking at what Company X managers describes when discussing the industry in general and more industry specific conditions for Company X, it is clear that the Porter framework indeed can be applied to explain some of the dynamics in the market and the general traits for an emerging market are also evident in terms of for example many differing claims by competitors, a lack of industry standards and no technological consensus. In determining if Porters strategy framework can be proving assistance in explaining why Company X has performed well since inception, I am of the opinion that it has been established that both the industry as described by Company X managers and the way Company X approaches strategy relates very much to the framework. The five forces and the factors determining the intensity of these forces as suggested by Porter are certainly present and even if Company X managers when determining action plans and strategic initiatives moving forward have not thought about strategy from the Porter typology perspective, the resulting strategy can be described as a differentiation focus. It is further clear that this approach, that can be characterized as a differentiation focus, has limited and mitigated some of the factors controlling the intensity of the five forces. This according to Porter is exactly what strategy is concerned with, or rather creating a defensible position against the five forces.

The solid state lighting industry being an emerging industry can hence be understood from a strategic perspective using Porters five forces and his framework for strategy. Even though industry development is rapid and the forces change constantly, this does not eliminate the explanatory power of Porters five forces, but rather only changes the intensity of the various forces over time. Company X, being a start-up in an emerging industry has implicitly formed a strategy that can be characterized as a differentiation focus which has fitted their company and served their company well in the past few years in terms of achieving continued organic growth with sustained profitability.

It hence at least holds true for the emerging solid state lighting industry that Porters theories are very much relevant and that the generic strategies, in this case the differentiation focus can help companies, even if formed implicitly, to mitigate some of the forces.

Does the use of a generic strategy in an emerging industry provide a guarantee for successfully navigating the company into growth and prosperity. I would unfortunately have to answer no to that question even if it would be wonderful to be able to have such a recipe for success. It could be that Company X simply has been fortunate in terms of the choices they have made to differentiate and in which niche markets to do so, however, looking at the lessons we can learn from this specific case, the company has been customer centric in terms of what differentiation features to focus on and what niche markets to enter. There has been a rational objective analysis in determining how to differentiate and although industry development is rapid and technological uncertainty still prevails, the focus has been on niche markets where the new emerging technology provides the largest benefits in general providing an added comfort.

6 Conclusions

6.1 Conclusions

In the light of my analysis of the industry structure and how Company X is affected by the five forces and the characteristics of an emerging market segment, I am of the opinion that it can be stated that the use, even if implicitly formed, of a differentiation focus strategy is a major explanatory factor in determining how it has come to be that Company X has performed well in the solid state lighting industry so far. It is however not the only explanation, and there could be not necessarily competing, but complementary explanations given.

The technological differentiation features, coupled with having been offered opportunities in market segments where these features have offered excellent value to customers has been a major force. The differentiation features however would likely not have worked as well industry wide, or from a price point perspective competing with products of companies that in addition to differentiation features inevitably also in comparison can draw benefits of relative economies of scale compared to Company X. The way that Company X has chosen to build their differentiating features has proved to be accepted by the market in these segments, and the features has over time to some extent also been developed to further be tailored to customers in these segments. Having a market driven approach and understanding the customer needs is also an evident trait of the classic view on strategy that Porter represents.

In the way that the emerging market of solid state lighting has behaved and is behaving in the view of Company X, understanding customer needs and working together with customers in developing products and the market is something that may very well be true for other emerging markets as well, where it is to an extent possible to develop the product or service together with the customer because ultimately, no sale occurs if customers are not making purchases.

It is my opinion that the use of a generic strategy that Porter suggests in an emerging market, in this case evidenced by the use of a differentiation focus by Company X in the solid state lighting industry, can be of great help to companies and provide a major explanatory factor in why a company has performed well. Other factors may very well play a role as well, however, for the purpose of this study, investigating other such factors has not been my objective.

6.1.1 Implications of conclusions

It is my opinion that the conclusions drawn are evidence that the strategy typology suggested by Porter is applicable and relevant to start-up companies in emerging industries. The forces and the specific industry conditions vary between industries in general, and will inevitably do so in different emerging industries as well. I do believe that in the cases where the structure is quite similar to that of the sub-markets of the solid state lighting industry in which Company X operates, benefits from the understanding of how Company X has approached and executed their strategy can be drawn.

6.2 Suggestions for further study

Based on my suggested conclusions in this thesis, I believe it would be highly interesting to investigate further additional emerging industries to investigate what role the use of Porter's generic strategies may have played in the development of these companies. As Porter suggests, the basic components are the same for all industries, however the individual mix differs. In order to build more research around the use of generic strategies in start-ups in emerging markets, other emerging industries should be investigated with a mix of case studies and quantitative studies. I believe it would be interesting to find two or more companies in several industries where the companies both follow a similar strategy of differentiation or differentiation focus, but differentiate products in different ways and to follow these companies from the growth stages of the market to industry maturity so see how the seemingly similar companies in their approaches have developed and what conclusions that could potentially be made regarding the various differentiation choices made over time as the industry matures.

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7.3 Electronic resources

Company X website (viewed 10 December and 18 December 2011)

8 Appendix 1

Survey Questions

- 1) Considering our products and services we:
 - A) Primarily seek to provide our products and services at the lowest possible price
 - B) Primarily seek to differentiate our products and services from those of our competitors.
 - C) Tend to emphasize one or more factors such as quality, price or uniqueness for a while, and later emphasize other factors.

- 2) In the future, we plan to position our company in the market place as:
 - A) One that does whatever generates the greatest return at that time
 - B) One that satisfies the demands of a particular group of consumers exceptionally well.
 - C) One that leads the way in new products and services.

- 3) If asked about our company, most current and prospective customers would:
 - A) Consider us to be an efficient producer of goods and services
 - B) Consider us to be highly innovative
 - C) Identify us with no particular area of distinctive competence.

- 4) How does your company view change in the marketplace or your external environment?
 - A) We usually try to initiate change
 - B) We don't think much about change
 - C) We usually try to resist change

- 5) Most current and prospective customers probably:
 - A) See our products and services as among the lowest priced available
 - B) Consider our products and services to be among the most unique
 - C) See different attributes in our products and services

- 6) Relative to our competition, we:
 - A) Generate more than our share of new products and services
 - B) Do some things well for a while and then concentrate on other areas
 - C) Are the most competent marketers in the industry

- 7) In the future, we primarily plan to:
 - A) Do lots of things, nothing in particular
 - B) Focus on high innovation
 - C) Improve our efficiencies

- 8) Current and prospective customers probably:
- A) Are unclear about the way we modify our products and services over time
 - B) View our products and services as stable and traditional
 - C) See us as a leader in the industry
- 9) One of our goals for the future is to offer products and services that:
- A) Are easily differentiated from those of our competitors
 - B) Contribute to profits regardless of what we sell
 - C) Are similar to those of our competitors, but at a lower cost
- 10) If you were to ask our present and potential customers, most would say:
- A) Different things about our organization
 - B) That we are often the first to modify existing products and services and develop new ones
 - C) That we dominate one segment of the market but are weak in most others
- 11) Our company concentrates most on:
- A) Different areas that constantly change
 - B) High efficiency
 - C) Innovation
- 12) We plan to:
- A) Remain steadfast and consistent, regardless of changes and trends in the marketplace
 - B) Redefine our industry
 - C) Make major changes to our strategy as dictated by the marketplace and our competitors

Item number	Strategy domain	Context	Cost F	Diff F	SIM
1	Product/Service	Present focus	A	B	C
2	Competitive	Future intentions	B	C	A
3	Organization	Consumer perceptions	A	B	C
4	Change	Present focus	C	A	B
5	Product/Service	Consumer perceptions	A	B	C
6	Competitive	Present focus	B	A	C
7	Organization	Future intentions	C	B	A
8	Change	Consumer perceptions	B	C	A
9	Product/Service	Future intentions	C	A	B
10	Competitive	Consumer perceptions	C	B	A
11	Organization	Present focus	B	C	A
12	Change	Future intentions	A	B	C

Questions adopted from Parnell (1997) and modified for the purpose of fitting with the Porter typology. Since the sheer company size does not enable the surveyed company to have a pure cost leadership or differentiation strategy, the survey focuses on the two remaining as well as being stuck in middle.

Cost F = Cost focus

Diff F = Differentiation focus

SIM = Stuck-in-middle