

# Norwegian University of Science and Technology

# Master's Degree Thesis

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# The Path To Success

Growth Strategy of ODIM ASA

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Ålesund, 5th of June, 2018



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#### **Abstract**

A clear and well-defined business strategy is a precondition for any company to be commercially successful. In this thesis, we analyze the strategic decisions made by the industrial company ODIM ASA, which undoubtedly contributed to its tremendous commercial success. Our analysis highlights the need for owners and managers to appreciate the importance and profitability-potential of strategic work. Our research question entails understanding of how ODIM ASA became world leading within its domain, which was the Seismic industry. We thus attempt at identifying the main explanatory factors, which underlie their path to success.

We apply a qualitative research method in the form of a case study. The case study includes two interviews with three representatives of ODIM, who held key positions in the company and had active roles in its success and rapid growth.

The qualitative research gave us a comprehensive overview of the explanatory factors of ODIM's success. We find that ODIM's utilization of core competence such as relationship building, technological-development, reputation, and human resources combined with an offensive differentiation strategy, contributed to the company attaining monopoly power and dominance within the Seismic industry.

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# Clarification of concepts

**Strategy:** a process of creating unique, valuable and strategic position within an industry, where the main essence is to perform different activities than your competitors or performing the same activities differently (Porter, 1996).

**Growth barometer**: a growth analysis, which highlights twelve factors that needs to be fulfilled in order for a company to be considered as a growth company (Ahrens, 1998).

**Outsourcing:** turning over all or part of an organizational activity to an outside vendor (Barthelemy, 2003, p. 87).

**Logistics**: the function responsible for all aspects of the movement and storage of materials on their journey from original suppliers through to final customers (Waters, 2009, p. 4).

**Supply Chain management (SCM):** a network of organisations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer (Mangan, 2012, p. 10).

**Patents:** a contract between an individual or organization and the state (Trott, 2013, p. 193).

**Marketing:** identifying and fulfilling social and human needs in a profitable way (Keller & Kotler, 2016).

#### Terms Related to ODIM

**Control system** provided full oversight and control, which made it possible to operate remotely to increase the efficiency and security (ODIM, n.d-b).

CTCU (Cable traction control unit) are main installation winches, which gentle handle fiber robes (ODIM, n.d-c).

**Fairing systems** is a device which is mounted on cables which are to be towed through water which reduces towing resistance by as much as 30-40 % (O. H. ASA, 2000, p. 6)

**Metallization** specialized surface treatment that functioned as protection against corrosion (ODIM, n.d-a)

**ROV** (Remotely operated vehicle) are advanced technological solution used to offset the wave motions on the vessel. This makes the vessel able to function and operate as usual, even with demanding waves (ODIM, n.d-c). Unit used for inspection and maintenance work (ODIM, 2005).

**Seismic** is a geophysical way to map and examine the geological structures under the seabed by transmitting sound waves into the subsoil (Norskpetroleum, 2018).

**Sync system** is an innovating system that synchronized the input of cables on vessels, which contributed to high time-and cost savings (ODIM, n.d-b).

**Spectrum Blocs** a handling system that managed sonars and underwater streamer cables that could be installed on both helicopters and vessels (ODIM, 2006).

#### **CHAPTER 1**

#### 1. Introduction

Throughout the 20th century we have experienced increased activity in the Oil and Gas industry, which directed focus and interests towards investing in the Seismic Sector. ODIM was an international technology enterprise that obtained a leading position in the seismic industry. This was accomplished through constant innovations and development of regulatory technology and automated handling solutions (ODIM, n.d-b). As pointed out by Jay B Barney and Hesterly (2010) a firm's ability to succeed in a market is highly dependent on the *strategic* decisions made by the management. ODIM's particular choice of strategy and implementation process can act as an explanatory factor of their success. In order to conduct our analysis, we established an appropriate research question mapping ODIM's strategic decisions and drivers, which contributed to their success within the Seismic Sector:

How did the growth company ODIM become a world-leading player in its domain?

Several models and theories in the field have been suggested by researchers in order to describe a firm's strategy for success. In order to sufficiently answer our research question, we will utilize well-known theories analyzing whether theory agrees with the strategic decisions made by ODIM's management. To address this we have applied a qualitative research method in form of a case study. The particular qualitative method, case study, is useful when the purpose of the study is to develop an in-depth understanding of a given phenomenon of interest.

This research paper proceeds along the following lines; In the first chapter, we will address the case company ODIM and its organizational structure to obtain a more comprehensive picture of the business. Further, the relevant industry is presented to get an overview of the situation of the particular time period. In chapter two, we review well-known primary literature establishing the theoretical foundation of our thesis. The next chapter discloses the methodological approach, which lays the foundation for the different phases in the research process. This includes the justification and choice of research design, research method, data collection method, sample of study as well as data processing. Chapter four utilizes the

theoretical tools presented in chapter two and further analyzes the information retrieved from the in-depth interviews. We do this in order to compare the theory with ODIM's strategic choices of ODIM, to see if well-known theories can act as explanatory factors and drivers of ODIM's success and growth. Finally, chapter five outlines the main explanatory factors with respect our research question and reveals whether ODIM's strengths and opportunities outweigh the weaknesses and threats.

### 1.1 The company

#### 1.1.1 ODIM's history from 1974-2009

ODIM ASA was established by the brothers Inge Dragsund and Audun Dragsund, together with Olav Molvær and Magne Gjerdsbakk in 1974. The main business of ODIM was serving the maritime industry for instance through sales and development of winches and handling solutions. ODIM has been described as one of the biggest industry adventures in Norwegian history and had its peak from 2003-2009. They went from being a local cornerstone business to becoming world leading in its field through readjustment and customization during recession periods (Myrvold, 2013).

The success of ODIM can be explained by their ability to combine expertise with social interactions, which both strengthened the reputation of the company and made them a more attractive business partner. The main priority and goal of ODIM ASA was adding value for its customers thus providing customer satisfaction. This meant that they were solution-oriented and often went beyond the customers preferences, in regards to production and construction. Satisfied customers beat any advertising campaigns, and became the most prominent attribute of ODIM and an integral part of their business model. Early on, ODIM positioned themselves to supply goods to both the fishing, and Oil and Gas industry, which made them able to persevere throughout crisis times and busts, in a way few others of their competitors did. After 20 years of ongoing pressure and high work pace the founders questioned themselves whether to continue or resign. As a result of all the hard work, ODIM had succeeded in developing a large customer base as well as decent economic results (Myrvold, 2013).

In 1995 the founders of ODIM decided to step down, in favor of Jogeir Romestrand, Torbjørn Hovden, Oddbjørn Hjelle and Eldar Eilertsen (Myrvold, 2013). Even though the company now had new owners, its primary focus was still the offshore and naval markets. A decisive

feature and element of ODIM's internationalization process, was undertaken in 1997. ODIM bought a Canadian company named Spectrum Engineering Ltd., which later was renamed ODIM spectrum. This company was acquired in order to get access to specialized technology and knowledge, to help ODIM further develop its existing products in the Seismic sector (ODIM, 2005).

In 2005, Mr. Romestrand and the management ODIM decided to list the company at the Oslo stock exchange. In retrospect, this was without doubt the peak of 2005 (ODIM, 2007). The year 2005, was characterized by a solid global oil demand and increased attention towards limited global oil reserves. This meant increased focus on exploration among the oil companies, which further increased the demand for ODIM's technological solutions. The company also experienced good capital utilization due to the increase of demand. The Group achieved an outstanding increase in turnover this year: 114 percent, from 162.1 million NOK in 2004 to 347.1 million NOK in 2005. The year of 2005 was an important milestone in regards to technology and commercial results and operations for the group ODIM ASA. ODIM achieved important breakthroughs in terms of technology in deepwater and supply areas. These breakthrough resulted in important contracts and orders for the company. One of the strategic objectives of ODIM ASA was to strengthen their position within automated handling systems. This was the main reason for acquiring Hydrakraft AS in 2005. With this acquisition, ODIM ASA could offer both specialized and standardized equipment packages, which led to much stronger market position (ODIM, 2006).

ODIM continued to set new records in terms of sales and revenue throughout 2006. This year the company had a total revenue of 878.6 million NOK, which was an increase of 153 percent. Through increased market presence, ODIM's market profile was further developed, both nationally and internationally. In addition, 2006 was the first whole year as a listed company, and at the end of 2006 they were considered the "stock exchange winner" of the year with a total increase of 323 percent in the stock price (ODIM, 2007).

Further into 2007, the company signed decisive contracts with Petroleum GeoService and Aker Oilfield Services. Later on in 2007 ODIM decided to increase their focus and investments in human resources in terms of knowledge and engineering capabilities, which led them to purchase of the company JMC engineering. As in previous years, ODIM also doubled its results this year (ODIM, 2008). By the end of 2008, all of ODIMs business areas

had continued to grow and the company sat new records in terms of revenue, even though the financial crisis occurred. The holding company ODIM ASA decided to purchase two enterprises to increase resources and capabilities. These were a Nuclear Power company (Numet Engineering Ltd) and an After Sales & Service operation (Sunnmøre Elektro AS). In 2008, they also managed to further increase their total turnover by over 50 percent (ODIM, 2009).

ODIM's overall aim has always been to develop complex and automated handling systems in order to increase customers efficiency and profitability. This goal was also rooted in ODIM's original philosophy from 1974: *To develop own unique solutions that were not copies of competitors' products*. This reflects the new management's ability to maintain the original core values of ODIM from the beginning of 1974 until the acquisition by Rolls-Royce in 2009.

#### 1.1.2 Organizational structure

ODIM possessed a leading market position within selected market niches through all their subsidiaries. This was accomplished through the development and delivery of complete handlings systems for both offshore and marine markets (ODIM, 2005). Figure 1.1 discloses an illustration and overview of the corporation structure of ODIM ASA and its subsidiaries.



Figure 1.1 - Corporate Structure of ODIM (2006, p. 5).

#### **ODIM ASA**

As illustrated in figure 1.1, the holding corporation of ODIM Group was ODIM ASA. The holding company consisted of two employees, which were responsible for providing administrative services to the subsidiaries. The overall vision of ODIM ASA has always been to focus on their position in the market, and further strengthen it as a leading supplier of cable

handling systems within oil and gas industry. The main segments within this industry were mainly seismic and subsea.

#### OHI AS

This company was based in Stavanger, Norway and had expertise in deepwater installations. By 2005 ODIM ASA entered into a shareholder agreement with OHI AS. This involved mutual ownership in each other, i.e., ODIM ASA held 49.9 percent of the shares OHI AS while OHI AS held 22.5 percent of ODIM ASA's shares. In 2007, ODIM ASA decided to acquire OHI AS in order to strengthen their market position and expertise within deepwater (ODIM, 2005).

#### ODIM Houston LLC.

As a result of increased demand for ODIM ASA's product and services, ODIM ASA decided in 2005 to establish the company ODIM Houston llc. This was a strategic decision in order to strengthen the firms connection and contact in the US market (ODIM, 2005).

#### ODIM spectrum Ltd.

Another subsidiary of ODIM ASA; ODIM spectrum Ltd. was based in Peterborough, Ontario, Canada. This company delivered cable handling solutions to the marine industry (ODIM, 2005). The systems handled sonars and underwater streamer cables, which could be installed on both helicopters and vessels (ODIM, 2006). ODIM Spectrum Ltd. was recognized as a global leader, for their technological standards in design and for their implementation of advanced mechanical and hydrodynamic systems within the marine segment (O. ASA, 2007).

#### ODIM AS

ODIM AS, another subsidiary of ODIM ASA, was located in Hjørungavåg, Norway. The company developed, manufactured and sold different automated handling solutions to offshore supply vessels, seismic vessels, deepwater installations and ROV's (ODIM, 2006).

#### ODIM Alitec AS

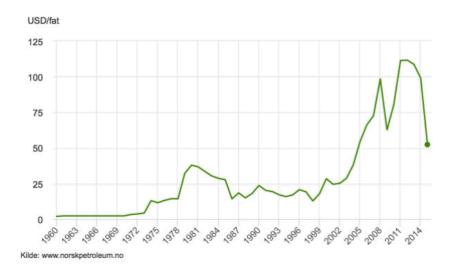
The company ODIM Alitec AS was fronting and controlling the development and commercialization of new technologies such as the CTCU, which handled equipment in deepwaters, i.e., fiber ropes, cables etc. This is called mooring and deepwater installation business (O. ASA, 2007). The company was based in Hjørungavåg, Norway (ODIM, 2005).

# 1.2 The Seismic Industry

Throughout the 1990's, the largest portion of ODIM's business activities came from the Oil & Gas industry; Subsea, Seismic, Supply, Research and Service (ODIM, 2006). ODIM delivered technological and automated handling systems that supported activities related to oil-exploration and to the Seismic segment in general. They obtained a leading position within this sector due to their innovative accomplishments. The strategy of continuous innovations can be considered the main driver of ODIM's overall success. Therefore, we focus on ODIM's activities within the Seismic industry as we try to explain the company's success.

For over 60-years, the Seismic industry has proven to be both dynamic and creative. Although the sector is small compared to the Oil and Gas industry, it has proven to have significant impact on the global reserve production ratios (Yilmaz, 2001). In addition, the constant change in the oil price entails varying supply and demand, i.e., it is a cyclical industry. Consequently, businesses within the sector are forced to develop platforms within different segments to handle the market fluctuations, increase the scope and reduce the cyclical risk (O. H. ASA, 2000).

Because the Seismic sector is heavily dependent on the Oil and Gas industry, it is necessary to map the historical changes in the oil price during the particular period of time, cf. graph 1. If the oil price experiences a peak, so will Seismic activity, whereas a drop in the oil price will further decline the activity in the sector. However, the effect is not instant, but occurs with a time lag. Graph 1 illustrates the oil-prices in USD/barrel from 1960 to 2014, although we focus specifically on the period from 1998 to 2009.



Graph 1: The Oil-Price. Brent blend – Statistisksentralbyrå (2016).

As graph 1 indicates, a fall in the oil prices occurred in 1998, which caused considerable consequences for the Seismic sector. Investments in oil exploration and extraction companies declined severely. As a result, the supplying companies within the Seismic sector, experienced reduced orders, lower capacity utilization and margins (O. H. ASA, 2000). From 1998 to 2003, the industry experienced fluctuations due to changing oil-prices, which again influenced the Seismic sector (Statistisksentralbyrå, 2016).

In the recent years, low replacement rates for petroleum production might result in declining production, which can further lead to increased exploration activity over the next years. This happened in 2003 to 2008 (cf. graph 1). Consequently, global Oil-and Gas companies increased their focus towards oil exploration, which in turn increased the demand for more effective and innovative technological handling solutions (ODIM, 2006). As international demand increased, the supplying companies experienced increased margins, new orders and higher capacity utilization.

From 2003 until 2009 the industry was influenced by an elevated oil-price level (graph 1). Consequently, an opportunistic environment occurred within the Seismic sector. This encouraged businesses to take higher investment risks which simultaneously resulted in more activities and competition within the industry. In addition, the fall in reserve yields contributed to higher demand for products and goods, which again caused significant growth (ODIM, 2008). However, as the graph indicates the financial crisis that occurred in 2008 had a significant impact on the oil-price whereas the price fell from a record level of 147 dollar

per barrel in July 2008, down to 30 dollar per barrel by the end of the year. This shift caused huge repercussions for the Seismic companies in terms of orders, capacity utilization and margins (ODIM, 2009).

#### **CHAPTER 2**

#### 2. Theoretical Framework

This chapter reviews the literature and tools available, which enable us to explain and understand the success of ODIM. All relevant topics will be carefully examined and elaborated in order to develop the theoretical foundation for answering the chosen research question.

#### 2.1 Strategy

The ability a firm has to survive and succeed in a market is dependent on the right implementation and choice of strategy (Jay B Barney & Hesterly, 2010). The researchers Tregoe and Zimmerman (1980) described strategy as a framework that helps managers with strategic decisions by displaying the choices which stipulate the nature and path of the firm. However, Kenichi Ohmae (1982) argued that in order to develop an effective strategy, three aspects should be included to cover the magnitude of the concept; competitors, customers, and company. These three players were also referred to as the strategic triangle. Based on this, Ohmae defined strategy as the way in which a corporation endeavors to differentiate itself positively from its competitors, using relative corporate strengths to better satisfy customer needs (Ohmae, 1982, p. 92).

Later on, Porter (1996) described strategy as a process of creating unique, valuable and strategic positions within an industry, by including a different set of activities. The main essence of strategy is performing various activities than your competitors or performing the same activities differently. Strategy concerns resting on a unique position and requires you to make choices and decisions in regards to what to focus on and what to drop (Porter, 1996). Obtaining a good strategy is crucial for success, and it makes the firm capable of generating competitive advantages. This is a very good definition because it takes into account both the company, customers as well as the competitors.

#### 2.2 Diamond Model

The principal of all strategic thinking is to find the optimal combination of internal and external conditions as well as between the organization and the environment. External and

internal conditions have to be facilitated and well-known in order to be successful and internationally competitive. Internal conditions are the foundation of the firms' competitiveness while external conditions can be referred to as the competitive situation as well as market potential. It is easier to influence internal conditions compared to external conditions because the internal conditions can be formed, altered or improved by the organizations' owners, management or employees (Reve, Haugland, & Grønhaug, 1995).

Competitiveness is an interaction between macro- and micro conditions, which can be referred to as an industrial cluster. The strategic tool, the "Diamond Model", was first introduced by Porter (1990) in his release of "The Competitive Advantage of Nations". This strategic framework was used to analyze and map the cluster of related companies within the same industry. The Diamond Model illustrated in figure 2.1, examines four drivers that are mutually dependent on each other with a cause-and-effect relationship. These attributes together, create and provide the national environment, which the companies are surrounded by. This environment consists of pressure, incentives, and capabilities that motivates the companies to undertake innovations, inventions, and improvements (Porter, 1990). These drivers include the industry's demand conditions, related and supporting industries, factor conditions and firm strategy, and finally the structure and rivalry among the competitors. The interaction between these four factors forms the competitiveness within the industry (Reve, 1992). However, researchers argue that another determinant should be considered in terms of the diamond model to sufficiently map the competitiveness; the government. This institution set the laws and regulations of a country which further affects the industry. These regulations can either prevent or encourage firms' to enter an industry (Porter, 1980).

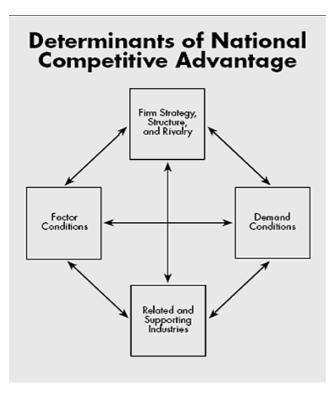


Figure 2.1: The Diamond Model - developed by Porter (1990).

#### 2.2.1 Demand Conditions

Demand conditions apply to the market opportunities that the firm possesses. Economic fulfillment of customer's needs, as well as proximity between the company and customer, is essential to every business to achieve success and financial value (Reve et al., 1995). Competitiveness is developed serving a combination of demanding customers at home and abroad, it is therefore necessary for the company to obtain a competitive customer portfolio as well as satisfy new international quality standards (Reve, 1992).

#### 2.2.2 Related and Supporting Industries

It is stated that industrial competitiveness is being formed by the micro conditions within companies and the network of companies, which together represents a common environment of knowledge. Supplying industries and service businesses are the main parts of the related and supporting industries because they serve the industry being analyzed. In short, we can say that the firm's competitiveness is based on the vendor's competitive position. Research on the field has shown that the firms' competitiveness increase by obtaining competent vendors. This is because leading suppliers foster technological inventions more frequently (Reve et al., 1995). Reve (1992) further argues that corporations with in-house research and educational institutions are essential drivers within related and supporting industries, which can further

increase the knowledge arena and foster specialized personnel. R&D is considered as a cornerstone of a dynamic industrial environment. Firms enhance their international competitiveness simultaneously with the price, access, and quality of the industrial services (Reve et al., 1995).

#### 2.2.3 Factor conditions

This factor concerns the access to reasonable resources like natural resources, human resources, efficient technology, infrastructure, capital and unbeatable knowledge. The degree of competitiveness of a firm depends on the quality, prices and the accessibility of these mentioned factors. It is the access to specialized input factors which is the most important condition for success, even though the general access to factor condition is essential as well. Technological advances and innovations are often considered as drivers for the competitiveness of the firm. These advantages can either be in relation to the production process or the characteristics of the product (Reve et al., 1995). The industry has to attract the best people in order to promote technological innovations and build experiences upon these innovations (Reve, 1992).

#### 2.2.4 Firm strategy, Structure and rivalry

A firm's competitiveness is best developed in an arena which is influenced by high competition from related businesses. Reve et al. (1995) present a competitive triangle which shows how the customer can choose between competing goods and services. Although the type and number of competitors vary, every company is located in a competitive triangle. The more crucial it is to provide something unique and at the same time operate profitably (Reve et al., 1995). The next stage in a strategic analysis is to go further into the competitive arena and analyze the competition within the industry. Porter's five forces highlight this by suggesting five components: *Threat of new entrants, bargaining power of buyers, the threat of substitute products or services, bargaining power of suppliers and rivalry among existing competitors* (Reve, 1992).

#### 2.3 Porter's Five Forces

The primary determinant of the profitability of a company lays on the attractiveness of the industry. The foundation and formation of a competitive strategy rely on the understanding of the rules of the competition, which further determines the attractiveness of the industry. He

argued about the importance of linking the business to its environment by analyzing the industry structure to be able to develop a competitive strategy. The goal of the firm's competitive strategy is to find the greatest position in the market, i.e., the ability to defend themselves against the competing forces. He suggests that the key to a successful strategy and future profit lays in the ability to know the strength and weaknesses of the different forces (Porter, 2008).

Porter's five forces refer to five fundamental competitive forces that affect the industry structure, and these forces gather the foundation in regards to the profitability potential in the industry cf. figure 2.2 (Porter, 1980). Industry profitability is dependent on the status of the five forces because they have the power to influence the elements of investments such as the prices, costs, etc. The strength of the forces varies from industry to industry, and it changes simultaneously with the industry. In industries where the five competitive forces are favorable, many of the competitors in the industry can experience attractive returns, while few experience positive returns if the industry faces pressure (Porter, 2008).



Figure 2.2: Porter's Five Forces - developed by Porter (1980).

#### 2.3.1 Bargaining power of supplier

The bargaining power of the suppliers refers to the extent that the supplier can influence the industry by reducing the quality of goods, increasing prices on products or service as well as reducing of the availability of a product (Porter, 2008). The outcome of this will reduce the

profit potential of the firm buying from this supplier. Bargaining power of the supplier is influenced by their position in the market, e.g., is the market concentrated with few other competitors, are there no substitutes to the product delivered by the supplier, not mutually dependent of each other, or are the supplier's product differentiated (Porter, 1980).

#### 2.3.2 Threat of new entrants

More pressure on the already established companies in an industry will occur when new businesses enter. This cause more competition for the market shares, which will further affect the pressure on costs, prices and the magnitude of investments necessary to compete. In other words, the threat of new entrants might be a prevention on the profit potential. Threats can be seen in two different ways, either high or low (Porter, 2008). The threat of new entrants is often dependent on the entry barriers, in combination with the strategic reaction from the existing firms within the industry. Porter (1980) highlights six main reasons for entry barriers; the economy of scale, product differentiation, capital access, switching costs, access to distribution channels and cost advantages for established enterprises.

#### 2.3.3 Threat of substitute products

The industry can be seen as a group of enterprises that produce similar products that might replace each other, which is also known as substitutes (Porter, 1980). The threat of substitute products or services relies on how easily another industry can offer the same or a similar product to the customers. The potential profit of the industry decrease when substitute products or services put an upper bound on the prices (Porter, 2008). In other words, the substitute firm may force the established firm to operate at a given price. With this in mind, Porter states the importance of identifying the threat of substitutes to help a business decide upon strategic decisions, e.g., if the firm would raise competitive barriers or not (Porter, 1980).

#### 2.3.4 Bargaining power of buyers

The opposite of powerful suppliers is powerful customers. Broadly speaking, we might say that customers compete against the industry. This is because buyers can capture more value if they manage to force the prices down, claim higher quality or better service. As a result, powerful customers might lead to more competition between the existing firms within the same industry, at the expense of the industry's profitability (Porter, 2008). Porter also

highlights that the bargaining power of the buyer might or will change over time as a consequence of changes in the firm's strategic decisions (Porter, 1980).

#### 2.3.5 Competition intensity among existing enterprises in the industry

Porter argues that competition among the existing companies in the industry happens in well-known forms. In order to achieve the best possible position within the industry, businesses constantly need to innovate and work to outperform their competitors. These tactics may include product warranties, product launches and/or extraordinary customer service. The combination of these factors creates the competition intensity among the firms in the industry. (Porter, 1980).

A conclusion which can be made on the background of the *industry analysis* is that it is favorable for the companies within the industry if it contains as much competition as possible, while in the *competitive analysis* it is the firms wish to achieve and implement protection and barriers from the competitors in addition to obtaining monopoly advantages (Reve, 1992).

#### 2.4 Kraljic Matrix

The Kraljic matrix is a well-known purchasing portfolio approach which was introduced in 1983 by Kraljic, and his research has proven to have a broad impact on professional purchasing and given impetus further research within the field (Kraljic, 1983). This is a matrix which guides purchasers to manage their suppliers, i.e., differentiate between the supplier relations and thereby choose the most efficient strategy. Kraljic states that a firm's supply is dependent on supply risk and profit impact (cf. figure 2.3). His research suggests that managers constantly need to focus on economic growth and changing technological standards. Simultaneously, he encourages them to guard the firm against interruptions which causes supply damages (Caniels & Gelderman, 2005). In other words, more attention should be directed towards efficient supply management; *Purchasing must become supply management (Kraljic, 1983, p. 109)*.

Kraljic (1983) developed a 2x2 matrix which enables firms to choose appropriate supply strategies for single products or product groups, these are strategic items, leverage items, bottleneck items and non-critical items. The quadrant named *strategic items* concerns products which possess a critical value for the firm, due to their considerable impact on profit.

These products also entail large supply risk; if the company can't get hold of them, it is in trouble. *Bottleneck items* refer to products that have a low effect on profit potential, while the supply risk is considerably high. This is because the company is dependent on these items in order to sufficiently deliver their whole package in terms of goods and services. Suppliers of these products obtain a dominant position in the market. *Leverage items* are also known as commodity goods and can be received from various suppliers. These products are vulnerable in terms of the profit potential, while, the supply risk is considered as moderate. *Non-critical items* usually possess little impact in terms of profit. In this quadrant, there are many suppliers to choose between, which further imply low supply risk. These kinds of suppliers are selected if the bargaining power the supplier is low, i.e., the buyer is superior (Caniels & Gelderman, 2005).

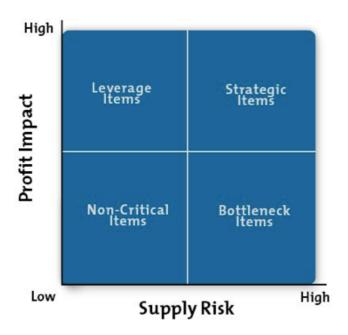


Figure 2.3: Stages of Purchasing Sophistication - developed by Kraljic (1983).

#### 2.5 Competitive Strategies

Freedman and Soete (1997) introduce and distinguish between four different competitive strategies, which is based on the competitive arena and the firm's actions, and which will further influence the investment decision of the company: Offensive strategies, defensive strategies, imitative strategies and dependent strategies (Lipczynski, 2013). In this master thesis, only one of these competitive strategies will be discussed due to its relevance to the company under the study and the research questions we ask.

The characteristics of an offensive strategy are that they work towards dominating the market by differentiation, introducing new technologies and trying to achieve competitive advantages. The main idea behind this strategy is creating new ideas and innovations to ensure both future income and market share to stay ahead of current and potential competitors. In order to protect and preserve these ideas which can potentially create competitive advantages, the company may acquire patents. This type of strategy, to some extent, concerns research and development work because the firm needs to stay ahead of actual or potential competitors (Lipczynski, 2013).

#### 2.6 VRIO-Framework

VRIO-framework is used to analyze a firm's resources and capability utilizing a structure of four questions (1) the question of value, (2) the question of rarity, (3) the question of imitability, and (4) the question of organization (Fjeldstad & Lunnan, 2014). The resources and capabilities can be brought into a framework that illuminates their significance more clearly (figure 2.4). The answer to these questions measures whether the resource or capability is a strength or a weakness, with regards to the environmental opportunities and threats. We might say that a resource or capability that is considered to be strong exploits the firms' opportunities and/or neutralizes the threats faced by the firm. On the other hand, a resource or capability that does not meet these requirements will be considered a weakness (Jay B. Barney, 2014).

	or capability	Costly to	Exploited by	
Valuable?	Rare?	Imitate?	Organization?	Competitive Implications
No	_		No	Competitive disadvantage
Yes	No	_	_	Competitive parity
	Yes	No	_	Temporary competitive advantage
Yes Yes	Yes	Yes	Yes	Sustained competitive advantage

Figure: 2.4: The VRIO-Framework - developed by Jay B. Barney (2014).

#### 2.6.1 The question of value

The question of value concerns whether the resources or capabilities enables the firm to respond to environmental threats or opportunities, e.g., utilize environmental opportunities or neutralize potential threats. Being a valuable resource or capability today does not necessarily imply it will be valuable in the future. In such cases, decision makers have two choices; they

can either develop a new and valuable resource, or they can figure out new ways to apply the traditional resource or capability. A resource or capability that is considered to be valuable must either increase the customers' willingness to pay for a product or reduce the net costs of supplying it. The ability to assess the value of the resources and capabilities in the firm is one of the first steps in order to understand the internal strengths and weaknesses (Jay B. Barney, 2014).

#### 2.6.2 The question of rarity

A resource or capability is considered as rare if it is obtained and controlled by only a small number of competing firms. Broadly speaking, we might say that valuable and rare resources or capabilities can be seen as a source to competitive advantage, i.e., competitors within the industry do not have the necessary access to such resources or capabilities that are valuable or that it is difficult to acquire such resources or capabilities. Whether the resources or capabilities will generate competitive advantages for the company will depend on the preconditions and situation in which you are located. In such cases, the firm can be considered as a strategic innovator if they obtain valuable and rare resources or capabilities. This combination makes it hard for the competitors to imitate or obtain the resource or capability (Jay B. Barney, 2014).

#### 2.6.3 The question of imitability

The question of imitability concerns whether a firm without a specific resource face cost disadvantage in obtaining or developing it. Costly imitation of the valuable and rare resource or capability can be a source for sustained competitive advantage. However, this can only be achieved if the competing company faces cost disadvantages in acquiring the resource or capability. Firms within the same industry can imitate in two different ways. First, they might use direct duplication which consists in directly duplicating of the resource or capability of the "leading" firm. Secondly, they might create substitutes for the existing product or service, which gives them a more unique market position. Both these cases would (hopefully) increase the income or stabilize the market shares in the industry (Jay B. Barney, 2014)

#### 2.6.4 The question of organization

If the resources and capabilities of the firm are valuable, rare, non-imitable, there may occur opportunities for competitive advantages. Firms need to organize their resources or

capabilities in order to realize and exploit their potential. This can further create opportunities for sustainable competitive advantage. Several factors are relevant in terms of firm organization; formal reporting structure, management control system and compensation policies. These components in combination with the resources and capabilities can enable a firm to realize competitive advantage potential (Jay B. Barney, 2014).

#### 2.6.5 Critique of the VRIO-Framework

Earlier, researchers argued that even though a firm obtains a sustained competitive advantage today, it is not a prerequisite that it would be persistent. However, modern empirical research done by economist Joseph Schumpeter has shown that this is not the case as long as the threats, opportunities and environmental changes remain stable over an extended period. This phenomenon is also referred to as the *Schumpeterian revolutions*. He studied how unpredictable manners could change the firm's threats and opportunities and as a consequence would change the firm's value as a result of lost sustained competitive advantage (Jay B. Barney, 2014).

The second limitation of the VRIO analysis is the *imitability paradox*. This suggests that it is not provided that all businesses can or have the opportunity to obtain sustained competitive advantage. Even though the company's resources meet all the requirements of the VRIO framework, it is not be given it would lead to a sustained competitive advantage. One reason for this might be the lack of the manager's ability to implement good strategic decisions, i.e., lack of skills and/or knowledge. Based on this, we can see that the VRIO framework has two critical factors that are not included in the analysis and as a researcher or manager, it is important to take this into consideration (Jay B. Barney, 2014).

#### 2.7 SWOT Analysis

The *SWOT* analysis was developed in the 1960s and is today used during the strategic planning phase. It is a mapping of the firm's strengths, weaknesses, potential opportunities and threats in a 2x2 matrix (Künzli, 2012). Fjeldstad and Lunnan (2014) suggest that a SWOT framework is a good tool to use in order to summarize the external and internal findings. This method would make it easier for managers to gain strategic insight and increased the ability to predict the future of the company. Due to this, it would give the management more room to evaluate how the corporate strengths can be used in a way that reduces the threats or exploits

the opportunities. Or how the firm's weaknesses can be an opportunity for change. However, the author argues about a pitfall during the SWOT development. When the analysis is based on subjective views and not realistic or trustworthy data it could lead to wrong strategic choices or in the worst-case lead to bankruptcy. That's why it is important with a solid understanding of the firms' industry, shareholders, competitors and data (Künzli, 2012).

#### 2.7.1 Critique of SWOT Analysis

Reimer (2017) argue that SWOT is just one of many tools that can provide input in the strategic planning process. In other words, SWOT is not alpha omega in strategic planning, and many researchers have criticized this type of analysis. The first downside of SWOT is that it does not include or consider overall organizational capabilities although the firm's strengths and weaknesses are found. This is considered a huge critique since the overall organizational capabilities have an essential effect on the ability to achieve the overall strategic objectives or not. Modern studies have also shown that the SWOT analysis does not provide an objective perspective since it is totally subjective to its participants. The SWOT analysis is only consisting of bullet points which create a lack of detailed information. This can contribute to uncertainty, misunderstandings and ineffective decisions. In other words, a detailed portfolio is needed in the strategic planning process, and SWOT does not provide this (Reimer, 2017).

#### 2.8 Generic Strategies

The relative position of the company within the industry decide whether the company's profitability is over or under the industry average. A company can achieve results above average if they are able to maintain competitive advantages. Companies which obtain a competitive advantage has the unique, special ability to differentiate and distinguish themselves from competitors while operating at low costs simultaneously. Porter (1985) introduced three generic strategies a company can implement in order to generate results over industry average; cost leadership, differentiation and focus as illustrated in figure 2.5. Each of these strategies has its own way to improve competitiveness based on how broad or narrow the industry segment is. Differentiation-and cost leadership strategies search to enhance their competitive advantage through a broad scope of the industry, while cost-related benefits (cost focus) or differentiation (differentiation focus) on a narrow scope is in the center of the focus strategy. Different initiatives within the implementation of each strategy vary from industry to

industry, i.e., it is a challenging process to know which strategy to choose and how to implement it.

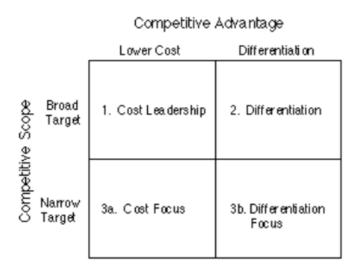


Figure 2.5: Porter's Generic Strategies - developed by Porter (1985).

#### 2.8.1 Cost leadership

Cost leadership is referred to as one of the first generic strategies. Companies with the philosophy of cost leadership seek to obtain the lowest possible production costs in its industry. They cover a broad scope and serve numerous segments, and the extent of the cost-related benefits and advantages depends on the structure within the industry. Porter (1985) argues that success based on cost leadership depends on the ability to ensure prices in line with the industry average. On the basis of the low costs compared to competitors, the companies can experience higher profitability than their competitors. To operate successfully and avoid competition as a cost leader it is important to be the only cost leader in the industry and have monopoly power (Porter, 1985).

#### 2.8.2 Differentiation

The second generic strategy is differentiation; companies have to develop uniqueness within the industry in order to stand out. Figure 2.5 shows that companies who decide to differentiate themselves, deliver and focus at a broad scope in the industry. A successful differentiated firm has the opportunity to charge higher prices than competitors due to its ability to cultivate uniqueness or perceived uniqueness in the market. The logic behind this type of

differentiation strategy requires that the enterprise chooses to differentiate other features or attributes than their competitors as well as being able to create products or services, which are unique (Porter, 1985).

#### 2.8.3 Focus

Focus is the third generic strategy which stands out from the other strategies, by focusing on a narrow scope of the industry and simultaneously trying to exclude rivalry by serving the particular segment exceptionally. There are two types of focus strategies, *cost focus* and *differentiation focus* where both operate on a narrow scope of the industry. Cost focus companies seek benefits in terms of costs within their segment, while differentiation focus seeks to deliver unique and outstanding products within the particular segment (Porter, 1985).

#### 2.9 Growth Barometer

Ahrens (1998) develop a growth analysis, which highlights twelve factors that need to be fulfilled in order for a company to be considered as a growth company. He also states that for companies to be characterized as growth companies, they need to show financial growth of minimum 25 percent over six years. This analytical framework reveals the description of the company as well as the organization structure which is essential for the growth potential. The twelve factors are as followed:

#### 2.9.1 Growth focused owner

Growth focused owners, managers, and employees are necessary for success and accomplishment of growth. Due to turbulent environments, growth-focused leaders need to be able to make fast decisions and have the adequate capital to perform the necessary actions (Ahrens, 1998, 2005).

#### 2.9.2 Growth funding

Rapid growth firms compared to other companies, consider cash-flow, time and responsiveness to change as more important than budgets and long-term plans as a result of the turbulent surroundings. Total capital needed increases in line with the sales (Ahrens, 1998, 2005). Ahrens (1998) claims that the access to adequate capital both in regards to equity and loans are crucial for companies to grow.

#### 2.9.3 Growth potential

The growth potential increases when the businesses are surrounded by little bureaucracy and complacency as well as practicing lean philosophy, i.e., optimize resources. Besides this, companies which achieve growth have the ability to further develop the market in terms of inventions and innovations (Ahrens, 1998, 2005).

#### 2.9.4 Time-monopoly

Companies with time-monopoly can act like monopolists due to their fast pace. This is done in such ways that they control their market (e.g., fast deliveries, quick responses to customer needs, setting trends and price levels) even if they compete with global competitors. Companies which accomplish time-monopoly have the capability to use *time as their prime sales point to customers (Ahrens, 1998, p. 20)* 

#### 2.9.5 Focus

A focused management, leaders, and employees are crucial in order to create a rapid growth company. The characteristics of a focused company are that they emphasize their work towards their core activities rather than the whole aspects of the business. In terms of focusing on core business, the decisions in regards to outsourcing become relevant (Ahrens, 1998, 2005).

#### 2.9.6 Market creation

Market creation is one of the key drivers for rapid growth companies. The main essence of market creation act as a leader and create new paths instead of following the competitors. Ahrens (1998) suggests that rapid growth companies can gain market shares through strategic alliances, price-cutting, marketing or acquisitions. Due to customers tendency to follow mainstreams instead of brand new alternatives, companies can introduce innovations in form of improvements of already established products to create new markets (Ahrens, 1998, 2005).

#### 2.9.7 International power

International power refers to the firm's competitive position in relation to international rivalries. The international competitive position of a company highly relies on past experiences, prices, product quality, access to financial capital as well as government regulations (Ahrens, 1998, 2005).

#### 2.9.8 Dynamic efficiency

Dynamic efficiency refers to the balance between the short and long-term focus. Industries or firms with high dynamic efficiency are characterized to have the ability to quickly respond to environmental and technology changes (Ahrens, 1998, 2005).

#### 2.9.9 Hard-soft management

Hard-soft management refers to management in terms of hard control and soft values in the combination of common goals. The working environment in such leadership styles consists of achieving results, opportunities for constant learning, personal achievements, and challenges. This environment creates a unique business culture that motivates both management and employees to constant working towards common goals and higher results (Ahrens, 1998, 2005).

#### 2.9.10 Tent organization

The assumption of every tent organization relies on collective attitudes and objectives. The main difference between stable companies compared to rapid growth companies is the climate which they are located in. An average stable company often relies on internal and external environments in form of continuity and conformity while the environment surrounding rapid growth companies is considered to be continually changing and turbulent. This makes the rapid growth company able to act faster to environmental changes, threats, and opportunities than the stable companies (Ahrens, 1998, 2005).

#### 2.9.11 Growth leadership

An effective growth leadership style is crucial for companies because it causes major repercussions. By accomplishing successful leadership, the company is enabled to secure progress, avoid hierarchy, cultivate innovation and invention, and it has the effect of motivating and engaging all parties of the organization (Ahrens, 1998, 2005).

#### 2.9.12 Management power

The power of management refers to the ability to create a harmonized leader team of leaders, which consists of both educated and experienced personnel in terms of growth. This in combination entails the management to coordinate and optimize their decisions as well as

their employees (Ahrens, 1998, 2005). Jacobsen (2013) argue that in order to achieve high results there needs to be no or little separation between the leaders and administration.

#### 2.10 Outsourcing

The statement which characterizes outsourcing is: do less with more (Insinga & Werle, 2000, p. 58). Insinga and Werle (2000) stated that the motivation of outsourcing is formed by the pressure made by constantly trying to work at a faster pace with fewer resources, in order to achieve better results. Dolgui (2013) defined outsourcing as the act of obtaining semi-finished products, finished products or services from an outside company if these activities were traditionally performed internally (Asmussen, Kristensen, & Wæhrens, 2018, p. 74).

Barthelemy (2003, p. 87) presented a definition of outsourcing: turning over all or part of an organisational activity to an outside vendor. Outsourcing can be seen as a powerful tool for companies because it enables them to cut their costs, improve their profitability, enhance performance and redirecting their focus toward core business. It also helps companies to improve their competitiveness due to less capital commitment and their ability to act fast to any environmental or technological changes (Barthelemy, 2003).

#### 2.11 Value Chain

Porter (1985) developed a tool that helped firms to identify ways of generating customer value, also known as the value chain. The value chain identifies nine strategic activities that create total value, margins and costs within a business; five primary and four supporting activities. Figure 2.6 illustrates the structure of the value chain. Primary activities consist of inbound logistics, operations, outbound logistics, marketing & sales and after-sales services. These activities play a direct role in the firm's value creation (Barnes, 2001; Keller & Kotler, 2016). *Inward or inbound logistics movements* are movements of materials from the suppliers and into the organization while *outward or outbound logistics* is the movement of materials to the customers' from the business (Waters, 2009). *Operations* concern the production and handling of inputs towards finished goods such as machining, assembly, maintenance of equipment, testing and facility operations. *Marketing and sales* are activities such as promotion and advertising, which provide attention towards the products or services with the intention to foster purchases. *Service* refers to activities concerning enhancement of customer value such as maintenance of goods, installation, repair, product adjustments, etc. (Barnes, 2001).

The supporting activities consist of: Firm infrastructure, human resource management, technology, and procurement. *Firm infrastructure* is activities including general management, planning, financing activities within the firm and can be a source of competitive advantage. This support activity concerns the whole organization and value chain, and not individual activities. *Human resource management* comprises all activities that involve the personnel, e.g., recruiting, hiring and training. Like infrastructure, human resource management also concerns the entire value chain. Every activity within the value chain includes technology, i.e., activities that can be implemented to improve existing products and processes. This support activity is also known as *technology development*. *Procurement* is the purchasing process of goods and services, and the activity tends to be spread across the whole organization (Barnes, 2001).

All these activities together are a reflection of the firm's history, strategy, implementation of the strategy and the economics of each activity themselves. This tool is a systematic way of helping businesses to identify the costs and results of each activity and bring attention to improvements in terms of creating competitive advantage. A firm achieves competitive advantage by performing these strategic activities better or cheaper than its competitors (Barnes, 2001; Keller & Kotler, 2016).

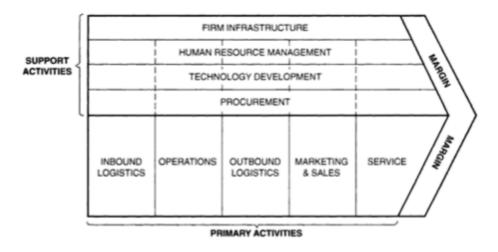


Figure 2.6: The Value Chain - developed by Porter (1985).

## 2.12 Logistics and Supply Chain Management

Supply chain management (SCM) and logistics are often used interchangeably, but to understand the magnitude and their interrelation, they will be explained separately (Mangan, 2012). Corporations and organizations are dependent on moving materials over a large area. This process can be referred to as logistics. Logistics can be defined as; the function responsible for all aspects of the movement and storage of materials on their journey from original suppliers through to final customers (Waters, 2009, p. 4). However, some argue that the definition by Waters (2009) is somehow restricted due to lack of important concepts such as inbound, outbound, internal and external movements. US-based Council of Supply Chain management Professionals presented a more comprehensive definition that included these important concepts. Later on, this definition was further evolved and developed by Mangan (2012). They described logistics as the process of planning, implementing, and controlling procedures for the efficient and effective transportation and storage of goods including services, and related information from the point of consumption for the purpose of conforming to customer requirements (Mangan, 2012, p. 9).

Christopher (2011), a known professor of Marketing and Logistics at Cranfield School of Management suggested a definition of SCM as a: network of organisations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer (Mangan, 2012, p. 10). To understand all aspects and the scope of SCM, Stock and Boyer (2009) carefully examined many of the already existing definitions in order to create a more well-defined definition, they defined SCM as the management of a network (...) between interdependent organisations and business units consisting of material suppliers, purchasing, production facilities, logistics, marketing and related systems that facilitate the forward and reverse flow of materials, services, finances and information from the original producer to final customer with the benefits of adding value, maximizing profitability through efficiencies and achieving customer satisfaction (Mangan, 2012, p. 12). Even though this is a comprehensive definition compared to others, it is not obvious that this definition is more valuable. The main logic behind these two concepts is that logistics is considered as a part of the process of supply chain management (Mangan, 2012).

## 2.12.1 Drivers of logistics and supply chain management

There are six logistical and cross-functional drivers of SCM, which is crucial to examine for firms to improve their supply chain performance with respect to responsiveness and efficiency. Facilities, inventory, and transportations are considered the logistical drivers, while information, sourcing and pricing are seen as cross-functional drivers cf. figure 2.7. An important aspect of the overall performance of the supply chain concerns the interaction between these drivers (Chopra, 2010).

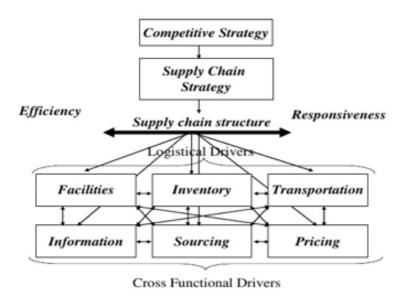


Figure 2.7: Supply Chain Decision-Making Framework - presented by Chopra (2010).

Facilities concern the location where products are invented, produced and installed within the supply chain network. Facilities can be referred to as either production sites or storage sites. This driver has a significant impact on the supply chain due to the importance of decisions in terms of the capacity, flexibilities and the location of the facilities and in addition to responsiveness and efficiency. All Inventory within the firms facilities concerns the raw materials, the process and life cycle of the material and the finished product. Any altering of the inventory policies can have a huge impact on the efficiency, productivity, and responsiveness of the firm's supply chain. Inventory exists within the supply chain if there are more goods than demand. Inventory has an impact on the supply chain in terms of material flow time, i.e., the time between the materials enters to its exit in the supply chain. Another significant impact in regards to inventory and supply chain concerns the ability to support

firms competitive strategy. By obtaining large storage inventory close to customers', enables firms to respond quickly to demand, and thus increase responsiveness (Chopra, 2010).

Moving inventory from one location to another in the supply chain is referred to as the third pillar; transportation. The decisions regarding transportation of the inventory have a significant impact on the supply chain performance because efficiency and responsiveness are largely dependent on optimal transportation. The role of transportation in terms of competitive strategy depends heavily on customers' preferences and needs, i.e., firms dealing with customers' which are willing to pay extra while expecting high responsiveness may use transportation to meet these requirements (Chopra, 2010).

The cross-functional driver information, is considered having a significant impact on the performance of the supply chain, due to its direct effect on the other drivers. This driver concerns the flow of information, analysis and data gathered concerning the logistical drivers' facilities, inventory, and transportation. There are key components which need to be analyzed and considered in order to ensure sufficient information. Chopra (2010) distinguishes the process in a supply chain into two categories; *pull and push. Pull processes are initiated by a customer order, whereas push processes are initiated and performed in anticipation of customer orders* (Chopra, 2010, p. 26). It is important to distinguish between these processes to ensure sufficient information that makes it easier for managers to make decisions that benefit the supply chains performance, efficiency, and responsiveness (Chopra, 2010).

The right decisions and choices regarding the performance of particular activities such as the production of goods, storage of the products, transportation as well as the management of the information, is crucial to optimize firm's resources. Sourcing decisions have a large impact on the supply chain when it comes to responsiveness and efficiency. Firms may outsource in the attempt to increase responsiveness and efficiency towards customers'. The last driver concerns pricing, which refers to the price level within the supply chain in terms of services and goods, i.e., how the firms execute its competitive strategy. Pricing can alter the performance of the supply chain due to its impact on the behavior of the buyers (Chopra, 2010).

#### 2.13 Innovation

The statement: Not to innovate is to die was presented by Christopher Freeman in 1982 (Trott,

2013, p. 5). Innovation has become an increasingly important part of the business and culture, and it is essential for companies to be able to adapt and evolve to survive in the market. Empirical literature and studies have described innovation as the engine of economic growth (Trott, 2013).

Innovation is considered as a broad concept and can be seen from several perspectives. As early as 1934 economists were discussing and recognizing how innovation and new products could be a driver for economic growth (Trott, 2013). Schumpeter was considered the founder of the statement and his main arguments referred to the importance of new products in terms of competition rather than improvements of old. Innovation can be explained as the process created by people who engage in different transactions with others. A result of this is the developing and implementing of new inventions/ideas. This can either be preparations for existing products, or new and better solutions (Van de Ven, 1986). The researchers Myers and Marquis (1969) provided a broader definition of innovation: a total process of interrelated sub processes. (...) a new idea, (...) invention of a new idea, (...) the invention of a new device (...) development of a new market. The process is all these things acting in an integrated fashion (Trott, 2013, p. 15).

There are different types of innovation which companies can incorporate to be successful, create economic growth and hopefully gain competitive advantages. The following categories are; product innovation, process innovation, organizational innovation, management innovation, production innovation, commercial/marketing innovation and service innovation (Trott, 2013). Based on this, innovation is crucial for a company to succeed in a globalized world with a rapidly growing competition.

#### 2.14 Patents

Patents can be described as a contract between an individual or organisation and the state (Trott, 2013, p. 193). Researchers explain it as a new product, process, substance or design that can be considered as an economic asset. Patents encourage firms to invest in R&D (opportunity for 20 years monopoly) and at the same time lead to innovations within an economy. In other words, both firms and society have incentives to the granting of patents, which is a legal asset that can be exploited, sold or licensed to others within the industry

(Lipczynski, 2013). Statistics have shown that patent applications to China have increased by over 30% each year due to their ability to imitate (Trott, 2013).

Most countries follow *three rules* the invention must fulfill in order to become patented. First, to be patented it has to be a new invention, i.e., it has not been published, used or demonstrated among the public. However, some things cannot be patented even if they meet the mentioned criteria, e.g., science discoveries and mathematical formulas. The second criteria are the non-obvious claim, i.e., the invention cannot be obvious to researchers or specialists. Finally, the last patent criteria are that the new invention needs to be practical applicable. In other words, an invention cannot be pure scientific data or knowledge that is non-commercial applicated (Lipczynski, 2013).

Patents over knowledge would give inventors a unique advantage since it will decrease competition and create a monopoly situation. However, governments all over the world are trying to find the correct balance to increase social and economic benefits. Due to this, governments work to prevent "unbalanced" situations since it can cause abuse of market power and block for competitors. In order to gain legal recognition, the firm holding the patent is to some extent obligated to disclose information about the invention to the public (Lipczynski, 2013).

# 2.15 Leadership

Northouse (2007) defines leadership as "an influence process that assists groups of individuals towards goal attainment" (Germain, 2012, p. 32). We might say that leadership is a particular behavior that the leaders practice to influence the employees' thoughts, attitudes, and actions. Leadership in an organization is mainly about motivating the employees to work towards the company's goal, and at the same time make them enjoy the work (Jacobsen, 2013).

Leadership theory examines how leaders can use different leadership-techniques to gain results among the employees. In short, we might say that leadership style concerns how managers act, their interests, and their relationship with their employees. Earlier it was assumed that there was only one leadership style, but recent empirical evidence has shown that this is incorrect. This research distinguishes between to different leadership styles that are

very different in practice and cannot be combined. The first is known as the democratic or relations oriented leadership. In this case, the manager tries to create good relationships with and among his employees actively. This is done by consulting and involving the employees in the decision-making process that are related to their work, i.e., low power distance, known from Hofstede's value dimensions (Deresky, 2017; Jacobsen, 2013).

The analog of this is high power distance, and also known as an authoritarian leadership style (Deresky, 2017). In this case, leaders are more concerned with formal goals such as delegation and providing guidelines and deadlines. Leaders also take decisions based on their own opinions and do not involve their employees in the process. These two approaches are also highlighted and sort of based on the distinction between direct and indirect leadership. Direct leadership is based on interaction and communication between the leader and the employees, e.g., through meetings, arrangements, etc. This creates interdependence and makes the communication flow more easily across status. In contrast, indirect leadership includes less direct communications between the managers and employees. In this case, managers tries to influence their employees through strategy, corporate goals, visions or corporate culture (Jacobsen, 2013).

Researchers argue about the importance of both knowing and understanding the difference between leadership and administration as two different roles and processes. However, new research has shown that the ability to implement good leadership is highly dependent on the administrative structure, and how well it works. In other words, we might say that both leadership and administration is interdependent. This new finding makes us question if there is any separation at all (Jacobsen, 2013).

# 2.16 Organizational Culture

The most common definition of organizational culture is developed by Edgar Schein. He defines organizational culture as a pattern of basic assumptions developed by a given group as it cope with its problems of external adaptation and internal integration [...] (Jacobsen, 2013, p. 130). Research argues that organizational success can be explained by its culture. It has been shown that a strong organizational culture contributes to a collective belonging and community which could potentially be a strategic competitive advantage. Jacobsen (2013) argues that the organizational culture can strongly influence the employees and their work

ethics in form of affiliation, motivation, trust and their ability to collaborate. This in combination with management, can operate as a recipe for how employees should act in the best interest of the firm (Jacobsen, 2013).

# 2.17 Branding

Research in B2C (business to customer) theory has shown that an intensive and time-consuming brand building strategy can lead to competitive advantage in terms of differentiation. The reason for this is that it would lead to more recognition and identification, which would most likely decrease the purchase barrier among the consumers (Kotler & Pfoertsch, 2010). Branding can be defined as *the strategic production and articulation of an image of a commodity service, institution or other entity (Aronczyk & Brady, 2015, p. 168).* A strong brand, name or symbol can reflect the quality of the product and the performance characteristics. In other words, it is about creating a unique name and image (logo, symbol, etc.) in order to be more visible to the consumers, thru marketing and other promotional tools. This in combination would most likely increase the product loyalty among the consumers, as long as the association is positive (Kotler & Pfoertsch, 2010).

With this in mind, researchers have argued that brand associations is a way to *help consumers* process and retrieve information, and hopefully they evoke positive affect, as well as cognitive considerations of benefits that provide a specific reason to buy (Henderson, Iacobucci, & Calder, 1998, p. 307). A firm which emphasizes a long-term focus has to adapt branding management processes due to its fundamental part of future-oriented management. Branding does not only contribute to substantial success, but it also creates gained personal reputation for the employees. The importance of brand attention has increased rapidly the last decades as a result of a more globalized world. A strong brand gives a unique sales position, which makes the firm stand out compared to their competitors (Kotler & Pfoertsch, 2010).

## 2.18 Reputation Management or Reputation Building

"Who we are" and "who we want to be" are two central questions, which need to be included in the process of creating reputational management. On the basis of this, it is essential for the company to create compliance between the identity, image, and reputation. Reputation can be seen as the most valuable resource of the company. It takes years to shape and build a good and strong reputation, but it can very easily be destroyed in an instant (Brown, 2010). Brown

(2010, p. 57) defined reputation as what influences people to think, feel and talk about you the way they do. He also stated that achieving a good and strong reputation comes with benefits in terms of charging higher prices, more attention, and more respect. The reputation could be referred to as reason everyone pays (Brown, 2010).

Research shows that good reputation may seem to protect the company as a shield in difficult market conditions crisis (Brønn, 2009). It is proven that customers' and the society can be more forgiving towards companies with a sturdy reputation as a result of previous experiences and trust in the company. Reputation is seen to be the byproduct of the actions of the company and can act as a competitive advantage. This is why reputation management is essential for any company.

Many attempts have been made to show how big impact reputation has on the economic profitability and results of a company. The results are conflicting. Some researchers state and conclude that there are no direct connections between the reputation and economic profit, while others are convinced that there are clear and strong links between the two. How large impact a good reputation has on the economic aspects has been shown to depend on the situation and preconditions which the company is surrounded by (Brønn, 2009).

Reputation management and branding are two terms that need to be consistent and coordinated in order to be successful. You can see a brand as the associations the customers' have towards the products of the company, quality, and features while the reputation is the whole situation and whether the products and services meet the expectations (Brønn, 2009).

## 2.19 Marketing

The research literature within the field of marketing reveals that there is a growing interest in the future of the marketing and that organizations change their structures to be more responsive to the preferences and needs of the customers'. Based on this, the question if the companies should implement marketing activities throughout the organization rather than having closed marketing departments have arisen (Keller & Kotler, 2016). A statement given by David Packard of Hewlett-Packard underlines the importance of marketing: *marketing is too important to be left to the marketing department (Keller & Kotler, 2016, p. 55)*. He further argued about the importance of carrying out marketing throughout the whole organization,

since all employees can affect the customer in the purchasing process. In short, cross-department cooperation is crucial for success (Keller & Kotler, 2016).

There are reasons to believe that profit often depends on the success of marketing because the operations, economy functions, and other functions within the business is meaningless if there is no adequate demand for the company's products and services. On the basis of this argument, one might state that marketing creates both demand and jobs and is an essential part of the business success due to the constant changing technology, globalization, corporate social responsibilities and trends (Keller & Kotler, 2016). Keller and Kotler (2016) referred to marketing as identifying and fulfilling human and social needs, or easier said to *fulfill the needs in a profitable way*.

In January 2008, the American Marketing Association released a new definition of marketing, which has been used as the official definition from that day. The new definition highlights the role of marketing within the society in general. Nancy Costopulus, Chief Officer of the American Marketing Association, stated that the main change from the old definition to the new definition of marketing was that marketing was presented as a broader activity and referred to as an educational process rather than a function (Rownd & Heath, 2008).

## 2.19.1 Marketing mix

The goal of marketing is to develop a strategic plan that enables companies to achieve their overall objectives. This approach discloses different decisions concerning the *marketing mix*. The marketing mix consists of four pillars which are used to pursue the firm's goals. These pillars are also known as the four P's; price, product, promotion, and place. The price concerns the company's price level, discounts, and payment conditions, while the product refers to the quality, brand, guarantees, equipment, and design. Promotion is the third pillar, which mainly discloses marketing initiatives and dissemination. This promotes the firm's brand, while the place is referred to as the company's location and its ability to cover and supply a large assortment (Keller & Kotler, 2016).

# **CHAPTER 3**

# 3. Methodology

This chapter provides an overview of the research method applied in this analysis and information gathered based on primary and secondary data sources. Research methodology is about creating valid and credible knowledge about the reality and is often referred to as a comprehensive strategy (Jacobsen, 2015). Prior literature in the field describes research methodology as a strategy or a design which helps researchers map out problems and provides further ways to solve them (Jamshed, 2014).

To develop a depth understanding of the company ODIM and its success, a semi-structured, depth-interview with the management will be conducted, on a group and individual basis. This method is used to cover every aspect of the field of interest. The methodology of this thesis is based on the research process developed by Jacobsen (2015), but with some limitations (figure 3.1). He showed a figure of eight phases which highlights every step of the research process. The first phase concerns the design and development of the right research question. The chosen research question of this analysis is:

How did the growth company ODIM become a world-leading player in its domain?

With respect to the research question, we choose to start at phase two, which involves the choice of research method and design. Thereafter, the relevant data collection methods and data sample will be elaborated. The final step of this chapter will describe how we intend to process and analyze the gathered information to ensure quality and credibility of the study (Jacobsen, 2015).

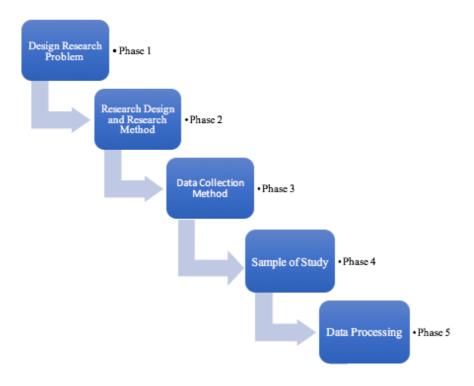


Figure 3.1: Phases in the Research Process - based on Jacobsen (2015).

# 3.1 Research Design and Research Method

Phase two, illustrated in figure 3.1, involves choosing the appropriate research design and method, which are crucial to answering the desired research question. The first section in this phase is to examine and select the most suitable research design. Further, the research design will create the foundation for choosing the appropriate research method, in order to examine the research problem.

#### 3.1.1 Research design

The quality of research is always dependent on the ability to select an adequate research design since it decides whether the empirical findings are valid and reliable (Gubhaju & Al-Sherbaz, 2013; Johnston, 2014). Research design can be defined as *the overall plan for relating the conceptual research problem to relevant and practicable empirical research* (Ghauri & Grønhaug, 2010, p. 54). In other words, it can be explained as a strategic plan for collecting data which is needed to analyze further and answer the research question. In

addition, the structure of the research problem will also have an impact on whether the research design will be considered as descriptive, exploratory or causal.

We justify our choice of research design on literatures from Wilson (2011). He argues that the choice of a descriptive research design relies on the structure and purpose of the research question. Descriptive research tries to provide an answer to questions containing *how, who, what* or *when* (Wilson, 2011). This type of research design is considered to be the most common case studies in research. It can reveal in-depth information and insight into a specific field (Yin, 2012).

In view of this, the choice of research design can be made. For this work, we suggest that it is appropriate to utilize a descriptive research design. We can justify the choice of design by reference to our research problem: *how did the growth company ODIM become a world-leading player in its domain?*. Based on this, we think it is suitable to use a descriptive research design.

#### 3.1.2 Research Method

Research methods can be described as a systematic process where the purpose is to collect relevant information that will answer a specific research problem. In social sciences, we distinguish between two research approaches; qualitative and quantitative research, based on the feature and structure of the research problem. The main reason for differentiating the two research approaches is because it is necessary to understand and translate the findings into meaningful findings. None of these two research methods are considered superior to the other. However, both approaches have their strengths and weaknesses (Saunders, 2009). These research approaches appear as paradigms or two distinct ways of thinking when it comes to acquiring or generating information to be analyzed (Creswell, 2007). Based on this, the primary focus will be on a qualitative research method while highlighting different characteristics of this approach. The reasons for a using qualitative method in favor of a quantitative one is due to the nature of our research question and the quality of the data needed to answer it.

Qualitative research is often based on theoretical traditions to define the scope of what are interesting issues within a given field of interest and it looks at the world through individual actions and is based on inductive reasoning (Tjora, 2010). In other words, individual actions

are data which is not quantified to all research strategies and as such are nor non-numeric data (Saunders, 2009). This implies that the researchers are collecting information through conversation interviews rather than statistics (Jacobsen, 2015). In qualitative research, investigators are able to create openness and interaction with the respondent(s) to gain rich, full, earthy, holistic and real understanding of the field of interest (Ghauri & Grønhaug, 2010). Based on the gathered information, the researcher finds key concepts to understand the situation and/or the actions of the participant. This approach focuses on the vicinity and degree of few observations, i.e., deep rather than broad information collective (Creswell, 2007).

The research problem in this thesis examines ODIMs growth strategy from 1995-2009, i.e., the study is linked to the management's strategic choices during a specific period of time. Qualitative research is suitable in studies when investigating new field of studies, a particular problem, when the aim is to analyze the organization as a whole including human behavior or when the objectives of the researchers are to ascertain and theorize the research problem of interest (Gubhaju & Al-Sherbaz, 2013; Jamshed, 2014). Furthermore, this research approach is often used in cases where the goal is to understand a phenomenon and/or acquire knowledge within a particular research field, such as growth in small and medium-sized enterprises (Gubhaju & Al-Sherbaz, 2013). In our case, we use the qualitative research method to investigate the key respondents' behavior, attitudes, opinions and actions within the company. This in order to attain the best possible overview of the company's development and the strategic choices made by its key personnel, which further lead to the success and growth of ODIM.

## 3.1.3 Choice of appropriate research method

Yin (2012) defines case study as an empirical inquiry about a contemporary phenomenon (e.g., a "case"), set within its real-world-context - especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2012, p. 4). On the basis of choosing qualitative research method and descriptive research design, we decided to apply a case study in this thesis. Within the area of case design, there are different types: single case design and multiple case design. Single case design is appropriate in a situation where the investigation focuses on a particular case, and the interest lies in testing the case in view of established theory. While multiple case design is considered to be more appropriate when rare, critical or revelatory cases are not involved (Ghauri & Grønhaug, 2010). Due to the formulation of our

research question and choice of design and method, it would be natural to apply a single case study to examine the causes of ODIM's success and growth.

A single case study is applied when the researcher's goal is to acquire in-depth knowledge of a specific situation or organization in a given period of time. By delimiting the study to a particular period, we are able to create a more detailed and realistic research as well forming an understanding of the interaction between context and actors. A case study can also contribute to new understanding and knowledge of already existing and new theoretical concepts, i.e., theoretical generalization (Jacobsen, 2015). Ghauri and Grønhaug (2010) state that case studies are suitable in situations where you need an answer to questions regarding "why" and "how". Usually, case studies are conducted by investigating and reviewing already existing materials such as papers, annual reports, news articles and journals, also known as secondary documents (Ghauri & Grønhaug, 2010).

Based on this, there are many reasons for justifying the use of single case study. First of all, we believe that a single case study is an appropriate approach because our research problem starts with *how*. Secondly, we use both secondary documents such as journals, papers, documents and annual reports as well as the primary data sources in form of interviewing the key respondents'. Thirdly, reliable theoretical concepts are crucial to create a successful case study. The theoretical framework helps delimit the choice of effective design and further generalize the following results (Yin, 2012). Since we are studying ODIM's strategy and the reason for its rapid growth, the single case (ODIM) is of essence, in addition to the theoretical concepts.

## 3.2 Relevant Data Collection Method

Several tools can be used within qualitative research to gain knowledge and information of the area of interest. Phase three of the research process (cf. figure 3.1) concerns deciding upon relevant data collection method, which can affect the validity and credibility of the data (Jacobsen, 2015). To be able to answer the designed research question, the right amount of data collection needs to be available. For this thesis, the information was collected from both primary sources and secondary sources. Although the main source of knowledge and information was gathered during the interviews, other types of materials were also collected in this thesis. Information sources such as articles, news articles, annual reports, and

documents were visited. In the following section, the methods of data collection will be further explained and presented.

The guide-and structure of the interviews conducted for this research is based on figure 3.2: depth interview structure, developed by Tjora (2010). He suggests that depth interviews can be formed roughly through three different phases; general questions, reflection questions and lastly closing questions. As the figure illustrates, each phase has different requirements in form of reflection and time. An essential prerequisite for a successful depth interview relies on the researchers' effort to create a relaxed atmosphere where the respondent feels comfortable talking openly about personal experiences. This is crucial in qualitative research since the information gathered from the interviews determines the research validity and reliability.

The ethical aspects of the interview are important to consider to achieve a successful interview. Therefore, the interview should always start with some general questions in order to create a harmonious atmosphere among the respondents'. The situation also needs to be perceived as safe and confidentially, because the amount of information being shared is dependent on these factors. It is important that the first questions require limited reflection, i.e., are easy and specific questions concerning the participant's age, working responsibilities, tasks, title, etc. (Tjora, 2010). In our case, we start the interview by asking the key respondents', which positions and responsibilities they had in ODIM during the given time period.

As the interview evolves, the requirement of reflection also increases simultaneously. This phase is the main part of the interview and the section where the respondent has the opportunity to go deeper into different research fields of interest. In order to ensure deep and descriptive answers, the researchers should start its questions with "can you describe...". However, in such cases where the respondent misunderstands the purpose of the question, it would be favorable to ask follow-up questions in order to ensure both desired information and answer (Tjora, 2010). In this phase, we asked the respondents' if they could give a description of ODIMs demand conditions, market opportunities, the industry as well as the competitive arena. We also ensured proper follow-ups if the questions were too open or misunderstood.

The last phase is to normalize and round of the situation and interview between the researchers and respondent and close the interview. As illustrated in figure 3.2, the requirements of reflection needed to answer the questions decrease with time. The questions asked in this phase were easy to understand and answer (Tjora, 2010). In our case, we handed out a survey to each of the participants. The survey consisted of different questions that covered Ahrens twelve factors of growth with a broad description of each topic. Each question of the survey had a scale from one to six. The information gathered from the survey created Ahrens (1998) growth barometer or the so-called "cobweb". It was natural to end the interview with this survey because the questions within the survey required little time and reflection.

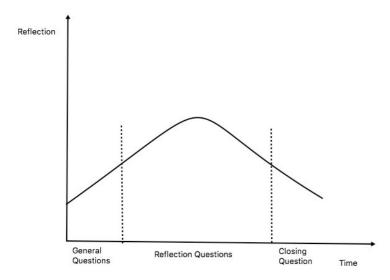


Figure 3.2: Depth Interview Structure - based on Tjora (2010).

#### 4.2.1 Semi-structured interview

The interview is considered as a purposeful and targeted discussion between two or more individuals. It is a powerful tool to help gather credible and valid data which is relevant and suitable to the research question (Saunders, 2009). The most used data collection method in terms of qualitative research method are different types of interviews; structured interviews, semi-structured interview and unstructured/ depth interview. Formalized and structured interviews apply standardized questions to each of the participants in the study and obtain clear limits, while unstructured and less formalized interviews focus on the surrounding environment, clear frameworks with some degree of flexibility (Saunders, 2009; Tjora, 2010). On the basis of this, a semi-structured interview was conducted.

The perks of choosing semi-structured interview are that researchers develop a list of questions to be covered, but with some degree of flexibility. This is important because it allows the researchers to ask follow-up questions and further leave room for discussions during the interview. In situations where the respondents' elaborate on topics to some extent, a follow-up question can be essential to dig even deeper into the important topics and reveal vital information. In order to be successful and retrieve essential information in the interview, the formulation of appropriate questions to explore desired areas will be crucial (Saunders, 2009).

The questions can either be open, probing or closed. The questionnaire used in this thesis will rely on questions which are open and probing, in order to fetch as much information as possible. Open-ended questions allow the respondents' to define situations and elaborate on their personal experiences. The use of open-ended questions can also reveal attitudes and feelings towards the different situations. Saunders (2009) state that all open-ended questions need to contain or start with the following words; what, how or why. Probing questions are much like open-questions, but with a particular focus or direction. The questions may include a particular topic and the exploration of responses which are of significance to the topic of study. It's a tool for getting an explanation, which can lead to an even deeper understanding of the phenomenon (Saunders, 2009).

Semi-structured interviews are commonly used to study opinions, experiences, and attitudes towards different fields. Based on these assumptions, the interview is most suitable when; relatively few units are being examined, opinions of each individual are of interest or if opinions and interpretations of individuals of a particular phenomenon are interesting (Jacobsen, 2015). The gathered information is used to understand the world from the respondents' standpoint. Due to the dissolution of the company, there is little understanding and information regarding ODIM's strategic decision and success, and it is, therefore, necessary to conduct an interview. Any successful interview depends on the surroundings when conducting the interview as well as the established framework. As mentioned, a relaxed atmosphere can be essential to extract valuable information. The participants need to feel safe and at ease in order to open up and share personal information (Tjora, 2010).

## 3.2.2 Group and individual interview

This master thesis base its information from two interviews. The idea was mainly to gather

the information through a group interview, but due to difficulties in gathering every respondent together, the decisions of conducting two interviews were made. The first interview was conducted on a group basis, while the second was an individual interview.

There are several reasons for choosing group interviews. First, by interviewing the respondents' together, we experienced the dynamic of the group as well as multiple opinions on the same topic. Second, because of the acquisition and closure of ODIM as an independent company, we also felt that by interviewing the participants together, they could complement each other. They may remember a number of situations differently. The group interactions may also lead to effective and productive discussions which can reveal even more detailed and essential information (Saunders, 2009). However, due to the occupation and responsibilities of the three respondents', the difficulties of gathering them together became a fact. This can be considered as a weakness of group interviews. This justified our decisions in separating the respondents' into two interviews.

As well as interviewing the three respondents', we decided to audio record the entire interview. This is because interviews require concentration and often eye contact, which further makes it harder to focus on taking notes. Jacobsen (2015) claims that ideally, every interview should be recorded in order to secure valid and reliable research. On the basis of this strategy, we were then able to gather the best possible information for our analysis.

### 3.2.3 Documents

Qualitative methods concentrate on data collection in the form of words, sentences, and narratives. On this basis, researchers can profit from gathered by others or by themselves (Jacobsen, 2015). We can distinguish between two main types of data; primary and secondary data. Primary data is collected by the researcher himself, or planned by the researcher for the purpose of the project. The data collection method can either be questionnaires, conversation interview or observations. And in our case, the method used for collecting primary is the interview of key respondents'. An advantage of using primary or proprietary data and data sources is that the data is gathered for the particular project at hand, which makes the data more credible and reliable (Ghauri & Grønhaug, 2010). On the other hand, existing research which is collected by someone other than the scientist can be referred to as secondary data. Examples of secondary data might be published surveys, articles, books, journals, etc. (Ringdal, 2013).

Due to the acquisition and closure of the company, examining secondary data is essential to obtain sufficient information. As mentioned before, the secondary sources used in this thesis are annual reports, news reports, feature articles, and documents.. An advantage of using the secondary data is the fact that this knowledge and information is written, which further makes it more reflective and thoughtful (Jacobsen, 2015). The search for secondary data is also cheaper and less time-consuming (Ghauri & Grønhaug, 2010). We combine primary and secondary data, which we think is the most proper approach to conduct a detailed and well-informed analysis.

# 3.3 Sample of the Study

Next stage in the research process is to describe and justify the choice of respondents', also known as the *sample of the study* phase (cf. figure 3.1). This step consists of selecting the appropriate elements (individuals) from which the information will be retrieved from. An important aspect of choosing the respondents' was to ensure that the individuals were willing to share the needed information with the researcher. As mentioned earlier, the purpose of qualitative research methods is to gain insight and understanding of a phenomenon, to create explanations and theories. A crucial precondition for any qualitative research is to find the right respondents' from which to extract the essential and needed information (Ghauri & Grønhaug, 2010).

We decided to conduct two interviews with three representatives from the company, ODIM for this research. This because we needed to obtain sufficient information to enable us to utilize the theoretical framework of this thesis to examine the company's strategic choices and strategy, as well as answering our research question. Firstly, we interviewed the former Chief executive officers (CEOs) of ODIM ASA together; Eldar Eilertsen (1996-2001) and Jogeir Romestrand (2003-2009). Further, we completed the second interview on an individual basis, with the former Managing director of ODIM AS, Håvard Haanes. These three representatives held key positions in ODIM during the given time period and played active roles in its success and rapid growth. This gives us unique insight into the strategic management decisions that were made during this success.

#### Eldar Eilertsen - Former CEO, ODIM ASA (1996-2001)

Mr. Eilertsen has its degree in Business Administration from Business School of Management in 1995. He was one out of the four persons who carried out the management buyout of ODIM Holding AS in 1995. From January 1996, he held the position as the President and CEO of ODIM ASA (ODIM ASA, 2000). When he started in ODIM ASA, he brought essential knowledge about strategy and management with him into the organization. This made it easier to discuss and disseminate information in a simple way throughout the whole organization. The knowledge proved to be a deciding factor in the journey towards their success. In 2001, Eldar Eilertsen resigned as CEO of ODIM ASA where Jogeir Romestrand took over the position as CEO (O. H. ASA, 2000).

## Jogeir Romestrand - Former CEO, ODIM ASA (2003-2009)

Jogeir Romestrand graduated from Møre & Romsdal ingeniørhøyskole in 1983, as a mechanical engineer and he also completed courses within economy. He worked in ODIM from 1985 where he was the head of the market and sales department. In 1995, the management buyout of ODIM Holding was conducted. Mr. Romestrand was one of four persons in the management which participated in the buyout. In the time period 2003-2009, Jogeir Romestrand served as CEO in ODIM ASA. He resigned when the merger between Rolls-Royce and ODIM was finalized (ODIM, 2007).

## **Håvard Haanes - Former Managing Director, ODIM AS**

Håvard Haanes graduated from NTH in Trondheim in 1986 as a civil engineer in marine technology. He has been managing director of Stadt Automasjon and in addition he has experience from ABB Composites and Dyno Industries. In the time period 1997-1999, Håvard Haanes held the position as a sales engineer in ODIM. In 2001, he was promoted managing director. In this position, he managed different operations within the seismic business segment in ODIM AS (ODIM, 2007).

# 3.4 Data processing

The qualitative data that has been collected during the research process will have implications for the next stage; the analysis. In order to make the data suitable for our study, we need to condense, group and restructure the information that has been gathered. Hopefully, this will result in a meaningful, valid and reliable analysis that may contribute to future research. As

mentioned earlier, we used audio recording during interviews. This gave us the opportunity to go "back and forth", condense, group and restructure the information. On this basis, we are able to secure meaningful, reliable and valid findings for our analysis. However, the interviews were conducted in Norwegian, which meant that we had to transcribe the context into English. This might create limitations in terms of misinterpretations due to reduced quality of sentence structure and content. By connecting primary data with secondary data, and, as we will demonstrate in the next section, using the theory explained earlier in this thesis, we were able to explain the rapid growth of ODIM.

# **CHAPTER 4**

# 4. Analysis

Jacobsen (2015) claims that ideally, every interview should be recorded in order to secure valid and reliable research. We recorded both interviews and put them into written text and words in order to prepare the material for analysis. The entire interview was transcribed in order to avoid missing important information and context. In this section, the analysis of the growth company ODIM will be presented. Porter's diamond model will be used to analyze and map the cluster of related companies within the same industry by examining the four drivers that together create and provide the national environment that surrounded ODIM (Porter, 1990). Further, five fundamental competitive forces also known as Porter's Five Forces will be explored to consider the profitability potential within the Seismic segment (Porter, 1980).

In addition, the *VRIO-framework* assesses the firm's resources and capabilities by bringing them into a framework that illuminates their significance, i.e., it highlights whether the resources or capabilities are a strength or weakness of the firm (Jay B. Barney, 2014). Porter's generic strategies will be analyzed to map ODIM's particular generic strategy, which generated results over the industry average. Furthermore, the value chain will be presented to map the strategic activities of ODIM, which contribute to value creation. Finally, Thomas Ahrens growth analysis will also be utilized to find out if ODIM can be considered a growth company (Ahrens, 1998). All these theories are used to map the factors which made ODIM successful in their domain.

#### 4.1 Porter's Diamond Model

Reve et al. (1995) suggest that the principal objective of all strategic thinking is to find the optimal combination of internal and external conditions as well as between the organization and the environment. These internal and external conditions have to be evaluated, facilitated and well-known, in order for a company to become successful and internationally competitive (Reve et al., 1995). In our case, Porter's diamond model was used to analyze and map the cluster of related companies within the Seismic sector. The four drivers together create and provide the national environment, i.e., the pressure, incentives, and capabilities, which motivated the companies to undertake innovations, inventions, and improvements (Porter,

1990). The combination of these drives forms the competitiveness within the Seismic sector (Reve, 1992).

#### 4.1.1 Demand conditions

Porter's first factor concerns ODIM's demand conditions, which apply to the market opportunities that the firm possesses. Reve et al. (1995) argue that economic fulfillment of customer's needs, as well as proximity between the company and its customer's, is essential to every business to achieve success and economic value. During the interviews, we asked the participants what they did to create an understanding of current and future customer needs. Mr. Haanes elaborated that they were visiting the customers' regularly to obtain an understanding of how the existing products or systems could be improved. In addition, products and systems were often created together with the customers' during these visits. These collaborations created long-term relationships since the customers' were always interested in buying more effective and suitable products, which generated higher profit. In terms of fluctuations within the cyclical industry, ODIM made decisions to develop platforms within different industries and segments, e.g., implement and transfer same equipment and processes in different industries (subsea, seismic, marine, etc.). This in order to increase the scope and reduce the cyclical risks.

Mr. Romestrand stated that ODIM's philosophy was based on Porter's competitive strategies; if you are going to deliver A, you have to have knowledge about A+B, within a specific field of interest (cf. figure 4.1). In other words, the knowledge about the customer's surroundings, environment, competitive and market situation were extremely important and considered as strategic factors. Based on this, we can draw parallels with the theory of Ohmae (1982), where he argued that the creation of an effective strategy depends on the strategic triangle. ODIM utilized this strategic triangle and obtained information about their company, customers', and competitors in order to create more demand.

Mr. Romestrand illustrated one example in terms of their ability to create more demand. The case concerned their customer Western Geophysical. ODIM set their prices at a much higher price-level than their competitors, closer to the double. This made Western Geophysical react. ODIM operated "by the book" and orientated themselves in terms of their customer surroundings and competitive situation. This investigation made ODIM aware of the strengths and weaknesses of their competitors, which resulted in constant innovations in terms of their

products. ODIM were then able to deliver more effective, secure and sustainable products and systems, which enhanced the customer experience. In addition, ODIM knew that Western Geophysical struggled with other suppliers in terms of surface treatment, metallization, and bent winches. Therefore, ODIM's strategy during the meeting with Western Geophysical was not to strike down on the other suppliers but to argue about the benefits of ODIM's products. As a result of this, Western Geophysical realized that ODIM's products would be a more long-term profitable investment, which could lead to competitive advantage.

As mentioned in section two, competitiveness is developed in servicing a combination of demanding customers' at home and abroad, and it is, therefore, necessary for the company to obtain a competitive customer portfolio (Reve, 1992). ODIM did have limited internal financial power compared to other companies, which meant that they were dependent on customers' prepayments from cash positive projects. Due to their partial financing of the development of products and innovations, the customers' had a tendency of being demanding and requiring full exclusivity on the unique products at a custom price.

The introduction of the first Sync system contributed to economic fulfillment of customer's needs, due to the time saved in the operations compared to existing systems. This innovative system, which synchronized input of cables was delivered to the company Petroleum Geo-Services (PGS) with two years exclusivity. However, a competitor, Geophysical Company of Norway (GECO), tried to obtain this system from ODIM but due to the exclusivity arrangement with PGS, the managers of ODIM tried to hold GECO back at least for two years by offering a manual system. PGS which was considered both a customer and a competitor, tried several times to purchase ODIM and allure them with tempting offers such as guaranteed sales volume and values. GECO was also particularly challenging because they continually tried to push ODIM away from systems and towards components. However, ODIM managed to hold on to their strategy. This enabled ODIM to strengthen their position since they managed to serve demanding existing and new customers' even though they experienced pressure in terms of exclusivity from existing customers'.

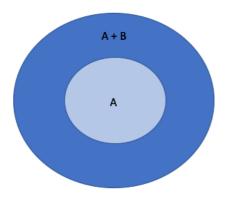


Figure 4.1: The Mindset of ODIM - Developed by Almli and Romestrand (2018).

Some researchers argue that the government should be considered a determinant of the diamond model. As mentioned in chapter two, the government could play both a direct and indirect role which can either prevent or encourage firms to invest and enter a specific industry (Porter, 1980). In other words, the government has significant power since they can for example use laws to regulate areas allowed for oil activities or protect companies within an industry. Low replacement rate from petroleum production resulted in declining production, which increased the exploration activity (c.f. graph 1). This resulted in encouragement for Norwegian state-owned companies such as Statoil to invest more in oil-exploration. Consequently, the increased focus towards oil exploration and limited global oil reserves increased the demand for more effective and innovative technological handling solutions. However, Mr. Eilertsen argued that ODIM's success cannot be explained by protections or advantages implemented by the government.

In terms of the demand conditions within the industry, ODIM enabled to create new demand with their constant innovations and improvements on existing products. However, they did experience huge pressure from customers' and competitors', and as a result of this, it is reasonable to believe that the general demand within the industry was moderate, but increased due to ODIM's actions.

## 4.1.2 Related and supporting industries

The Seismic sector was characterized as being small and intimate which contributed to growth opportunities. Mr. Haanes implied that to be able to exploit the current growth opportunities within the niche; *it is preferable to be large in a small industry, rather than small in a large industry*. This further justified the choice of segment, hence Seismic.

Supplying industries and service businesses are the main parts in the *related and supporting industries*, and research argues that a firm's competitiveness is highly dependent on the vendor's competitive situation (Reve et al., 1995). In relation to the theory, the vendor's competitive situation was important for ODIM since they obtained a key position in terms of the finished products or systems. However, the responsibility concerning the choice of suppliers changed over time. Mr. Eilertsen implied that in the beginning, the power and decision-making were held by the engineers, with no or little price preferences. The primary focus was aimed at the quality of the vendors. However, a shift in terms of focus occurred when the management of ODIM became more concerned with cost-saving methods. The way of thinking became more comprehensive with long-term objectives compared to earlier. ODIM saw huge cost potential if they managed to create competitive situations among their suppliers.

Mr. Romestrand and Mr. Eilertsen argued that the primary focus was still to obtain the best quality, but at a more satisfied and affordable price. In this manner, ODIM was able to ensure the best quality and at the same time put pressure on the vendors to reduce their prices. These actions contributed to reduced costs, which in turn increased gross profit for ODIM. In addition, the vendors were dependent on the purchases from ODIM, which made them unable to counteract the competitive situation created by ODIM.

Mr. Haanes implied that ODIM continually tried to develop and improve existing products along with the customers' to make their operations more effective and profitable for the customers'. The management of ODIM was not afraid to challenge themselves in terms of development. Mr. Romestrand stated that; there was never a moment when we turned down wishes from customers' in terms of specific products and innovations: the questions were never if we should try, but rather how we could we do it. This was especially the case when Western Geophysical and PGS asked ODIM for special products with new and demanding specifications, which no one at the market had at the time. However, the management of ODIM knew they had the knowledge, ability, and capacity to create the desired products. By cooperating with specialized vendors, ODIM was able to obtain crucial knowledge, and create products in demand. When ODIM was developing the ROV system, they decided to use studies and cooperate with the research institution NTNU in Trondheim, Norway. This was to gain sufficient knowledge within the field of dynamic effects in the sea surface, which were a

breakthrough and a driver for the innovation of the ROV system. This highlights Reve's (1992) theories on corporations within in-house research and educational institutions. The corporation with NTNU contributed to an increased knowledge arena which fostered specialized personnel within ODIM. This is a good example were ODIM increased their competitiveness by cooperating with institutions, which contributed to increased knowledge and technological innovations.

Based on this, we conclude that ODIMs actions by creating competitive situations and maintaining the relationships among their superior vendors contributed to increased profit and growth. However, one explanatory factor of ODIMs success during this particular period might be the increased activity from the Oil and Gas industry (cf. graph 1). We believe that this underlying growth increased the prerequisites for ODIM's success.

#### 4.1.3 Factor conditions

As mentioned, Reve et al. (1995) argue that a firm's competitiveness is highly dependent on the products quality and prices in addition to the accessibility of natural resources, human resources, efficient technology, capital and knowledgeable employees. He also considers technological advances and innovations as drivers for competitiveness related to the production process or the characteristics of the product (Reve et al., 1995). To promote such technological innovations the firm needs to possess the best people (Reve, 1992).

Mr. Romestrand implied that there was an extreme technological drive at the time and customers' were willing to absorb innovations on a continuous basis. Mr. Eilertsen stated that: *if we should participate in the game, we must develop.* In this manner, we can see that the philosophy of ODIM originates from the innovation theory presented by Christopher Freeman in 1982; *not to innovate is to die (Trott, 2013, p. 5).* The common features between these two statements illustrate the receipt to success and persistence. To accomplish this, companies must substantiate a certain drive and passion for development and innovation.

ODIM was located in a small place with approximately 13 000 inhabitants, which might create challenges in terms of recruiting human resources and knowledgeable employees. Mr. Haanes argued that qualified people, especially from 2003-2009 was especially essential, due to the company's rapid growth. The intensity of qualified personnel were relatively high within the maritime cluster, due to competition. Despite this, ODIM was always capable of

acquiring superior human resources, which was probably due to their strong reputation.

ODIM was a place where people wanted to work, and when vacancies were offered they often experienced that several people applied for the job. This might be partly explained by the ability the management had to take care of their employees.

The owners avoided distributing large dividends because they found it more profitable to keep the money in the business. This strategic decision helped the firm during recessions, by creating a safe and pleasant working environment where key employees were not dismissed during economic downturns. Besides, ODIM implemented an incentive arrangement by which permanent employees received bonuses if they managed to achieve the overall objectives. Furthermore, stock options were also introduced, i.e., employees were allowed to buy stocks in the firm at an agreed-upon price. The management thought that everyone should take advantage of the success. These strategic decisions contributed to increased accessibility to qualified personnel and human resources. By possessing the best and knowledgeable people, ODIM was able to improve their competitiveness and promote technological innovations.

As mentioned in the demand section, ODIM had limited equity, which made them dependent on customers' prepayment, i.e., cash positive projects with 30 percent upfront after signing the contract. We got the impression that ODIM was open about their economic situation to their customers'. In most cases, such agreements might require tough negotiations and compromises, however, due to ODIM's superior products and systems the customers' agreed to these prepayments. In addition, Mr. Eilertsen implied that ODIM tried to have a *light asset organization* keeping the fixed costs down by renting buildings. This highlights Reve et al. (1995) theories on firm's competitiveness. ODIM managed to get access to capital which contributed to increased product quality in terms of technological inventions and innovations.

ODIM was able to create competitiveness due to their ability to build a foundation of values and culture. This contributed to the access of human resources and knowledgeable employees, even though the competition for qualified people were high. It is, therefore, reasonable to believe that the general factor conditions were good in terms of qualified people but weak in terms of their equity capital. However, due to ODIM's ability to acquire capital, we will consider the factor conditions as favorable.

# 4.1.4 Firm strategy, Structure and rivalry

The last driver of Porter's diamond model is also known as the firm strategy, structure, and rivalry. As mentioned in chapter two, firm's competitiveness is best developed in an arena, which is influenced by high competition from related businesses. Reve et al., (1995) argues that it is crucial for companies which are located in a competitive triangle to provide something unique and at the same time operate profitable. The competitive arena, also known as Porter's five forces, examines four drivers that affect the rivalry among the existing competitors. In other words, it is a strategic analysis tool, which goes further into the competitive arena and analyzes the competition within the industry (Reve et al., 1995). ODIM's competitors during the given period were: Rolls Royce, Seaonice, and Hydrakraft. The last enterprise was acquired as a strategic move by ODIM in 2005. The analysis of these factors will be further conducted in the next section.

#### 4.2 Porter's Five Forces

This section will examine and further discuss the Seismic industry. The framework Porter's five competitive forces will be used to map and provide the context of this industry. By reviewing and analyzing the industry structure, companies are able to develop the appropriate competitive strategy. The ability to obtain the right amount of knowledge in regards to the strengths and weaknesses of the different forces within the framework is considered crucial to success (Porter, 2008). The five forces of the model affect the industry structure, which further affects the profitability potential of the model. And as mentioned earlier, the profitability of the industry is dependent on the status of these five forces (Porter, 1980). We will analyze ODIM in regards to the bargaining power of suppliers, threat of new entrants, threat of substitute products, bargaining power of buyers and lastly we analyze the competitive intensity among the existing enterprises within the Industry.

# 4.2.1 Bargaining Power of Supplier

Mr. Eilertsen elaborated that the purchasing policy of ODIM was based on Kralic's matrix (1983), i.e., how they choose their suppliers. An essential strategy for ODIM was to obtain a strong market position and at the same time keep the supply risk down. In order to map and analyze the supplier situation, the Kraljic matrix will be further utilized as it applies to ODIM. He also stated the importance of working with their sub-suppliers at all times in order to

establish good long-term relationships. There are different types of suppliers in terms of their degree of risk and profit impact, and some suppliers were considered more crucial than others.

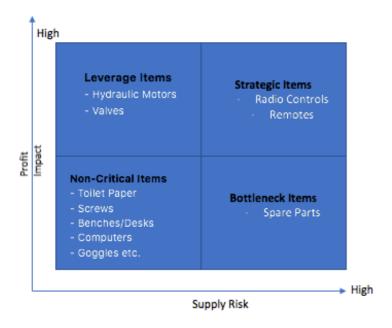


Figure 4.2: Stages of Purchasing Sophistication of ODIM - based on Kraljic (1983).

Suppliers of *non-critical items* (cf. figure 4.2) deliver and supply commodity goods such as toilet paper, screws, benches, computers/desks, goggles, etc. The characteristics of these items are that they do not have any direct impact on the reputation of the company and the key criteria concerns functional efficiency. In terms of the supply of these non-critical items, the number of suppliers is infinite (Kraljic, 1983). ODIM had a rationalizing strategy and changed the supplier of these goods numerous times, depending on their preferences and price, not the particular supplier. These purchases are often automated and based on fixed framework agreements due to low profit impact and risk (Kraljic, 1983). As a result of this, the purchasing process of these products requires little concern and takes place more frequently.

The quadrant labeled *leverage items* contain goods, which are associated with high-profit impact, and low to moderate supply risk (Kraljic, 1983). Mr. Eilertsen expressed that the items in this quadrant were general products such as hydraulic motors and valves. These items ODIM needed in order to supply their complex handling solutions, e.g., commodities and specialized materials. ODIM had the pre-emption and purchasing power, and the decision of suppliers was calculating costs and offering prices. Due to the low supply risk, the number of

suppliers was high. In terms of supplying common and non-differentiated goods, the suppliers must expect negotiations and targeting price strategies. This put ODIM in a powerful situation where they had the opportunity to control and decide upon desired suppliers. Due to the availability of several suppliers in terms of leverage items, ODIM utilized their position and created competitive situations among the vendors in order to reduce the prices, also known as a competitive strategy. Although abundant suppliers entail low supply risk, this strategy could produce benefits in terms of increased total gross profit for ODIM.

Furthermore, *bottleneck items* are characterized by low profit impact, but considerable supply risk (Kraljic, 1983). In ODIM's case typically this was spare parts in terms of the hydraulic motors and valves. Spare parts were crucial if problems occurred and ODIM needed to repair damages on the leverage items, i.e., ODIM was dependent on obtaining the spare parts. Due to this, the suppliers could possibly possess a moderate bargaining power. Mr. Romestrand stated that to avoid and reduce the bargaining power of their suppliers, ODIM obtained at all times warehoused spare parts. This was a strategic decision in order to supply sufficient and increase responsiveness. Their choice of suppliers was based on costs and reliability. Due to this, they mostly had one serious supplier which they maintained a strong relationship with, i.e., also known as a hedging strategy. In this manner, ODIM was able to manage and minimize supply risk in terms of the bottleneck items.

The last quadrant in figure 4.2, concerns products or services which ODIM was hundred percent dependent on, i.e., *strategic items*. As the figure indicates, the products or systems delivered by these suppliers had a significant impact on the profit potential and supply risk of ODIM (Kraljic, 1983). In terms of this, it can be advisable to form alliances and partnerships to secure supply and reduce risk. A company called *Microcontrol* produced and delivered wireless radio controls and remote. ODIM saw the potential in the technology and tried to adjust it into the seismic segment. This technology made it possible to steer machines, systems, and cranes at the rear deck of the vessels. Later on, this innovation became a commodity within the industry. Based on this, ODIM was privileged to be involved in the process and development due to its success.

In terms of strategic items, the supply risk and profit impact are considerable high (Kraljic, 1983). ODIM was dependent on this supplier in order to ensure their profit and utilize their expertise. However, this could be very risky due to the bargaining power sustained by

Microcontrol. If Microcontrol decided to raise prices, reduce quality, or in worst case drop ODIM as a customer in favor of others, ODIM would suffer greatly. A key performance criteria is long-term availability of key components. In this manner, Mr. Romestrand took the initiative to be involved in Microcontrol. As a result of this, he was elected a board member in Microcontrol. However, if ODIM had failed in the attempt of creating a strategic alliance with Microcontrol, another option could be integrating vertically in order to ensure supply and control of these critical items.

The supplier *Microcontrol* had the position and the opportunity to affect the supply, which could have a considerable impact on ODIMs competitiveness. ODIM was dependent on supply of key components from *Mikcocontrol* in order to deliver their complex solutions and automated systems. The controls and remotes contributed to increased quality and security in terms of the handling systems and complex solutions. We consider ODIM's dependence on the vendor as risky due to the bargaining power of the supplier, which could further impact profit potential. In this manner, ODIM managed to minimize this supply risk by obtaining a position on the board. This strategic decision contributed to increased control, reduced risk and information over possible actions undertaken *Microcontrol*. ODIM was then able to affect the strategic decisions in favor of themselves.

As mentioned, suppliers obtain bargaining power if they manage to influence prices, availability of products, or if they are able to reduce the product quality. As a result of the analysis of Kraljic's matrix, we conclude that the suppliers obtained limited bargaining power.

## 4.2.2 Threat of New Entrants

In section two, the foundation around the threats of entrants was established. This part is based on theory from chapter two and addresses the threats of new entrants within the Seismic sector. Porter (2008) explains that the threat of new entrants is often dependent on the entry barriers, combined with the strategic reaction from the existing firms within the industry. Six main reasons for entry barriers are as followed; the economy of scale, product differentiation, capital access, switching costs, access to distribution channels and cost advantages for established enterprises (Porter, 1980).

There is competition for market shares in all industries, and especially in the seismic sector. This is because of its cyclical characteristic. The competition and the intensity often increase when the market experiences a peak. Moreover, the seismic industry is small and intimate. Consequently, the market potential is largely dependent on few competitors' in terms of supplying products to customers. Therefore, Mr. Eilertsen implemented strategic actions in order to avoid market collapses in terms of profitability and potential. Hence, the management raised the entry barriers.

Mr. Eilertsen argued that the most powerful entry barrier ODIM could utilize was their strong established customer relationship. Building customer relations takes time and demands resources, e.g., it is costly and time-consuming to visit customers' around the globe. One of ODIM's goals was to introduce news or innovations every time they met the customers. They illustrated ways of optimizing operations that consequently would contribute to increased profit and efficiency for the customers (ODIM, n.d-b). ODIM felt the need to obtain an active sales department, which could both follow up and gather essential information about the market. This combination made it very hard for competitors to compete with ODIM and even harder for new entrants.

As mentioned, ODIMs' customers' played an active role in the product development stage, which led to innovations and long-term customer relationships. ODIM's strong customer relationship contributed to several advantages. They were able to ensure prepayments which further increased their financial assets. These financial assets encouraged ODIM to further develop internally in terms of innovations and differentiation. If the company only had a cost focus, the relations with the customers' would seem of less essence. However, strong customer relationships are best suited in differentiation strategies, where standing out is essential. In terms of the prepayment agreements, the customers' of ODIM could experience increased switching costs, which was an advantage for ODIM. On the other hand, this would be considered as an entry barrier, i.e., a disadvantage for customers' and new entrants. Based on this, we conclude that the customer relationships of ODIM represent an entry barrier.

In an attempt at creating barriers to stop competitors from entering the market, ODIM decided to produce and gain control over the production of Gearboxes and control systems.

These systems were considered part of ODIMs core competence, and ODIM hired and educated their own people to control, protect and preserve the Gearboxes and control systems,

i.e., make them appear as *black boxes*. This was an effort to avoid access to information and knowledge within the industry, which contributed to increased barriers and differentiation. However, we consider this as a risky strategic decision in cyclical industries due to increased fixed costs (salary) of ODIM and hence reduce liquidity. Incurring fixed costs in cyclical industries might have considerable consequences in periods of recessions.

Another attempt at creating barriers and removing competitors was the acquisition of Spectrum and Hydrakraft. In terms of Hydrakraft, ODIM noticed that this competitor threatened their position in the market. On this basis, the management made a strategic decision and acquired the company. Mr. Romestrand argued that this was a time-consuming process due to tough negotiations with the *competition authorities*. The authorities were worried that this acquisition might destroy or severely limit competition and whether in terms. However, ODIM managed to convince them that acquisition was right for the market and obtained monopoly power.

In addition, acquiring Spectrum was another strategic move. Rumors went on about the competitor Western Geophysical seeking other suppliers. The supplier of concern came from a different angle, which could potentially become a huge competitor and threat the market shares of ODIM. Spectrum established specialized blocks which ensured safe handling of cables over the stern of the vessel. This innovation was first developed and intended for the American defense. However, ODIM quickly noticed that this revolutionary technology could become a success and potentially become a commodity within the industry. The struggle within the industry was to handle the fragile cables, which wear easily. One of ODIMs' business ideas was to become "experts on handling hard and fragile processes and products". Therefore, this discovery and innovation were especially groundbreaking. On the basis of this, ODIM decided to buy the company before Spectrum realized the extent of their innovation. The decision to acquire and the actual acquisition of the American firm were done and completed within a week. This is a good example of ODIM's willingness to succeed and yearn for monopoly power. Mr. Romestrand argued that in such a changing and fluctuating market, it was important to be hungry, curious and at the same time be able to react quickly in order to survive.

These two acquisitions contributed to increased product differentiation for ODIM. Both companies contained new and specialized technology, from which ODIM benefitted from.

These strategic moves led to increased cost advantages in acquiring goodwill, customers, contracts, human resources and specialized equipment's. All factors contributed to the growth of ODIM, both financially and reputation wise. On the other hand, acquisitions might entail several pitfalls in terms of leadership, i.e., cultural differences, business behavior, and attitude, which could potentially decrease barriers and make it easier for new entrants to come forward.

With all these factors, ODIM was able to establish a wall of protection and prevent new entrants to the market, i.e., maintain high entry barriers. Mr. Eilertsen stated; "We knew the market. On the basis of this, we wanted the whole market. Which further was the reason for not letting competitors in, because then the market potential would collapse". Although there were entrants which managed to come through the barriers, the actions of ODIM and existing companies within the industry made it unbearable to survive for the newly established firms. On the basis of this discussion, we conclude that the threat of new entrants within the Seismic industry was relatively low.

## 4.2.3 Threat of Substitute Products

Substitutes are similar products or services that might replace already existing goods within an industry (Porter, 1980). The threat from potential substitutes depends on how easily the firms manage to offer the same or similar products to the customers. With this in mind, the potential profit of the industry may decrease if substitute products or services set an upper limit to the price. Substitute firms may obtain significant power and *steal* market shares, due to their ability to force established firms to operate at a given price (Porter, 2008).

In terms of ODIM, the respondents' were asked if there were any substitutes of significance and if they were threatening ODIM's systems or products in any material way. Mr. Eilertsen argued that within the industry, there was a constant chase between companies in the hope of entering the market, stealing innovations and technologies. Mr. Romestrand pointed out the importance of working with product benefits at every level, which further helped to construct barriers in the industry in order to avoid substitutes. Whilst competitors offered standardized winches, ODIM differentiated themselves and created new demand by delivering specialized winches which increased their attractiveness and profit. The prices offered by ODIM was significantly higher, approximately the triple compared to the competitors. As a result of this, skepticism emerged. Mr. Eilertsen expressed that they justified their price level by listing all

specifications that made their products and systems superiors, e.g., specialized surface treatment to reduce corrosion and proportional valve that adjust pressure or flow. In addition, to create specifications, ODIM named their winches; *multiple purpose winch for Seismic operations*. ODIM experienced increased demand because the customers' could not afford missing out on these superior specifications if they choose other winches.

Due to ODIM's focus regarding uniqueness and specifications, they were able to supply products and systems that were superior to others, and further charge higher prices to increase profitability. This was a risky strategy, because of the volatility of cyclical industries. The tables turn quickly, which could potentially harm ODIM if the market experienced a downturn. By introducing new specialized products in an established market, companies might experience mixed responses. This may lead to loss of capital, time and resources. In response to this, ODIM mapped the competitor's weaknesses and customer's preferences, which made them certain that their technology and innovations would become a success.

We conclude the threat of substitutes in the industry was relatively low, due to ODIM's constantly working towards uniqueness and delivering of innovative specifications. This combination contributed to entry barriers and hence decreased opportunities of substitution. Mr. Romestrand argued that a key factor in their success was their ability to create monopoly situations. If ODIM managed to deliver specialized winces and complex systems, competitors and other industries needed to acquire both the knowledge and capital to successfully develop the products and systems to substitute ODIM's products. In this way, ODIM obtained their position and at the same time restricted substitutes.

#### 4.2.4 Bargaining Power of Buyers

The analog of powerful suppliers is powerful customers. Broadly speaking, we might say that customers' compete against the industry. This is because buyers can obtain more value if they manage to force the prices down, claim higher quality or better service. As a result, powerful customers' might lead to increased competition between the existing firms within the same industry, at the expense of the industry's profitability (Porter, 2008). Porter also highlights that the bargaining power of the buyer might or will change over time as a consequence of changes in the firm's strategic decisions (Porter, 1980).

ODIM's strategy was to create 85 percent standardized and 15 percent customized products to customers' within a specific field of interest. This contributed to new, unique and innovative products or systems, which made the customer view this purchase as a more profitable long-term investment. ODIM had a differentiation strategy, which means that the company constantly focused on developing uniqueness within the industry in order to stand out. A strategy like this makes it difficult and less tempting for customers' to integrate backward. In addition, a differentiation strategy operates at a small scope, which further limits the buyer concentration, i.e., few buyers to serve.

Higher quality of ODIM's products and systems gave customers' the ability to perform more demanding operations which generated higher profit. Even though ODIM's products were placed at a high price level, they still represented a *small* amount of the buyer's total costs, and the purchases were relatively small in terms of volume. We also determine the buyers' switching costs as high due to the prepayments, long preparations, and superior engineering in terms of the products and systems. All these drivers in combination with limited information access among the buyers result in low bargaining power of buyers. In other words, buyers did not have the ability to claim higher quality at a lower price. However, if ODIM were to offer lower prices, it came at the expense of specifications. As a result of these drivers, we determine the bargaining power of buyers as low, due to their lack of ability to affect the profitability and competition among the existing firms within the industry.

#### 4.2.5 Competitive Intensity among Existing Enterprises in the Industry

We can see a correlation between ODIM's strategy and the theories of Porter (1980) and Freeman (Trott, 2013, p. 5). According to Porter and Freeman, the importance of constant innovation to outperform companies and achieve the best possible position within the industry is crucial. This was also an essence of ODIM's strategy. Due to this, the competitive intensity is highly dependent on the actions of the existing firms within an industry and their ability to offer product warranties, superior customer service, and product inventions.

Mr. Haanes argued that their main priority in order to outperform their competitors were building customer relationships. This priority is reflected in the statement given by the three respondents': *If we don't take care of the customer's, someone else will.* In order to achieve this, they constantly visited the customers' to maintain and strengthen their relationships,

which also contributed to increased barriers. Another attempt of outperforming competitors and compete at different levels was done by offering reduced prices. But reduced prices came at the cost of eliminating enhancements on the products or systems.

ODIM was committed to increasing their reputation and knowledge about the company. It was essential to reduce prices enough to raise the attention around the products and systems and at the same time ensure gross profit. Another advantage buying from ODIM was their technical specifications, which in fact described the customers' need. This was done to strengthen and justify the use of ODIM as a supplier. Since the Seismic sector concerns complex systems and low buyer concentration, the standards for the existing companies increased, which again lead to higher competitive intensity among the firms. Maintenance and further developing products and systems was crucial for companies in order to survive in this fluctuating market.

Therefore, we can say that the intensity within the Seismic industry was relatively high. This is due to the strong customer relationships enjoyed by the existing companies, the extraordinary high level of customer service and the given warranties. Warranties were crucial in terms of such complex and expensive systems. The warranties given by the companies within the industry were often twelve month, which was the standard called by Norwegian law. This was an insurance for the customers', to ensure both wanted quality and long-term profit. The companies that offer the most superior customer service and at the same time obtained the best customer relationship would achieve the strongest position in the industry. Based on this, we propose that ODIM, in fact, was able to obtain monopoly power in its market.

#### 4.3 Value Chain

Analyzing the value chain enables a firm to identify ways of generating value. In this section, we will map the *primary* and *supporting* activities of ODIM, which together created total value, i.e., margins (cf. figure 4.3). As mentioned in section two, the value chain analysis is important to systematize each activity in order to bring attention to improvements in terms of creating competitive advantage. *Primary activities* disclose activities that directly influence the value creation process. These are inbound logistics, operations, outbound logistics, marketing & sales and after sales services. While *support activities* involve firm

infrastructure, human resource management, technology development, and procurement. These secondary activities influence the performance of each primary activity. To sufficiently examine the value chain, we include the supply chain decision-making framework, developed by (Chopra, 2010). This framework helps to identify drivers that can improve a firm's supply chain performance in regard to responsiveness and efficiency.

# 4.3.1 Primary activities of ODIM

Inbound logistics are the movements and transportation of predefined goods (factors of production) from suppliers into the organization. Inbound logistics for ODIM included transportation and receiving of non-critical items, leverage items, bottleneck items and strategic items. Non-critical items were toilet papers, screws, benches, computers/desks, and goggles, etc. These items hold low supply risk because of an *infinite* number of potential suppliers and low profit impact due to no direct influence on the production process. The decisions regarding these items were often automatized with fixed framework agreements, i.e., little effort and concern was put into relationship building and transportation logistics.

Leverage items were hydraulics motors and valves, and the main suppliers of these items were Parker, Danfoss, and Poclain. These items are considered homogeneous and in abundant supply. Suppliers of non-differentiated items may experience negotiations and price targeting strategies from their customers. In this regard, ODIM had pre-emption rights and purchasing power, where their choice of suppliers was based on costs and prices. In other words, ODIM needed to obtain and maintain strong relationships with suppliers of leverage items due to the significant impact of these products on ODIM's profit. In addition, the strategic choice of the transporter of these items was crucial in terms of quality, safety, and punctuality. Any delay in terms of delivery and transportation of valves and hydraulic motors would affect the profit potential for ODIM. However, the supply risk of these goods was still considered low, as there were numerous suppliers of these leverage items.

Bottleneck items are items such as spare parts, which was crucial for ODIM's ability to deliver their finished whole package of product and services, i.e., items for which the supply risk was considerably high. However, ODIM managed to reduce this risk by obtaining critical stock levels. Since the supply risk was high, it was necessary to create and maintain strong supplier relations in order to acquire the best contracts and ensure supply. Despite this, ODIM still had to evaluate the transportation in terms of punctuality, quality, and safety. When

ODIM purchased leverage items from the suppliers Danfoss, Parker, and Poclain, they were also dependent on delivery of spare parts from these suppliers. They needed the spare parts to increase responsiveness if problems would occur concerning the leverage items.

Strategic items were items such as wireless controls and remotes, where the supply risk and profit impact were high, i.e., ODIM was highly dependent on this supply. Therefore, strong supplier relationship was essential in order to ensure future profit. In an attempt to reduce supply risk of items carrying high profit impact, the management of ODIM strategically decided move to become more involved with the crucial supplier, *Microcontrol*. Later on, the CEO of ODIM, Mr. Romestrand was elected on the board of *Microcontrol*. This enabled ODIM to secure a sufficient number of reliable transporters, maintain a close supplier relationship, control supply and protect themselves against existing and future competitors.

*Operations* involve the handling and production of components into finished goods. This could be machining, assembly, maintenance of equipment, testing and/or facility operations. ODIM experienced a shift in terms of focus during this period where they went from a production company to a technology firm. ODIM's sourcing decision was inspired by research literature, which indicates that core competence should be maintained and controlled at home. Sourcing can be considered as a cross-functional driver. This driver has both a direct and indirect impact on decisions in terms of the cross-functional driver; information and the logistical drivers; transportation and facilities (Chopra, 2010).

In this manner, production of ODIM was partially outsourced. Testing and assembly, as well as the production of Gearboxes and Control system were maintained and controlled at Hjørungavåg. This part of production was considered as part of ODIM's core competence. The geographical closeness to the ocean and the maritime cluster was also important to augment competitiveness, innovations and reduce transportation costs. Mr. Eilertsen argued that ODIM had a pull-strategy in terms of their production, e.g., signed orders before the start of production. Whereas their push-strategy was based on forecasts, which included purchases of components that were stored to be utilized later in the production.

To handle the rapid growth that occurred during this time period, ODIM decided to outsource most of their productions to Poland, Finland, U.S., Spain, China, Czech Republic among others. As a result of outsourcing, ODIM became more global due to facilities across the

world. Furthermore, outsourcing enabled ODIM to expand their capacity, which in turn enabled them to cut costs, improve performance, efficiency and enhance profitability.

Although the production costs were reduced by outsourcing, ODIM could experience increased transportation costs in some situations if customer's were located far away from the production sites. Transportation is of importance, due to its impact on the supply chain performance in terms of efficiency and responsiveness of a company (Chopra, 2010). With any outsourcing, there come huge risks in terms of lack of control. However, to ensure proper organization, structure and information flow avoiding such risks, ODIM decided to send employees to follow-up and ensure control of production.

Outbound logistics are the movement of materials to the customer's from the organization (Waters, 2009). It was essential for ODIM to develop the most efficient logistics department in order to ensure optimal contracts. Logistics was considered as one of their core competencies, and outsourcing was never an option. As mentioned earlier, the crossfunctional driver information is of essence due to its direct effect on the other drivers in terms of logistics. Information influence the performance of the entire supply chain and it is therefore important to obtain sufficient information to operate optimally. To avoid weak information flow in terms of logistics, ODIM implemented an Enterprise Resource Planning (ERP system, Movex. This was a necessary strategic move to ensure sufficient information and data, especially in terms of the sourcing decision.

ODIM mostly delivered large finished goods such as winches. Due to their global customer base, ODIM decided to produce their complex equipment and products close to their customers. This strategic decision reduced customer's transportation costs which further increased customer's profitability, i.e., optimize customer logistics. Although the primary priority of ODIM was to supply large and complex finished goods, they also supplied components such as pipes, valves, gears, and motors. Transportation is considered an important logistical driver that can have huge impact on firm's competitiveness (Chopra, 2010). ODIM retained the overall responsibility for transportation and delivery in terms of outbound logistics internally. It was, therefore, essential to ensure criteria's in terms of punctuality, price, and safety. In order to ensure that customers' received spare parts and equipment's rapidly, ODIM cooperated with their network of suppliers to building a stock in

trade and logistics system. The decision of locating their facility within the maritime cluster and their closeness to the ocean enabled ODIM to reduce transportation costs.

Marketing and sales are activities which provide attention towards the products or services with the intention to foster purchases. Research argues that promotion and advertising generate demand which further increases profitability and sales. The whole organization was involved in the marketing of ODIM and marketing skills was considered as a core competence. The management believed that the employees and workers were important marketers. Anyone who met the customers' regularly was an important driver in terms of promoting the company. During these visits, they brought accessories and brochures, which contributed to making the company more visible towards their customers'. The importance of marketing is captured in a statement by David Packard: marketing is too important to be left to the marketing department (Keller & Kotler, 2016, p. 55). In other words, cross-department cooperation was crucial to achieve successful marketing and promotion of ODIM. Due to higher price level than competitors, ODIM constantly worked to identify the customers' willingness to pay, without exceeding the pain limit. These actions enabled ODIM to charge higher prices and boost sales.

Reputation can be seen as one of the most valuable resources a company can possess. Shaping and a building strong reputation is a time-consuming process, which can easily be destroyed (Brown, 2010). As noted earlier, ODIM constantly tried to build and maintain strong customer relationships both at a professionally and socially level. Strong customer relationships contributed to a more solid reputation which further functioned as a shield during the recessions. As a result of the marketing activities and satisfied customers', ODIM managed to increase purchases and generate higher profit, which can be considered as a source of competitive advantage. However, how large impact the reputation would have on profitability, was time-dependent and influenced by the conditions surrounding ODIM at a particular point in time. All in all, we consider ODIM's reputation as having a positive effect on their profitability.

After Sales Services refers to activities concerning maintenance of goods, repair, installation, product adjustments, etc., which enhance customer value. ODIM considered their after sales services as core competence. Due to their worldwide customer base, ODIM decided to build an After Sales & Service network to provide professional and technical support at all times.

The slogan of ODIM was; *committed for the life of the product*. In other words, the close partnership with customers' continued even though ODIM had delivered the products. It was important for ODIM to be available 24 hours a day, 365 days a year to offer availability in terms of their services. In addition to this, ODIM was committed to fulfilling customers' needs if they experienced critical challenges or issues offering a 48 hours response time (ODIM, n.d-a). Mr. Eilertsen argued that mainly three drivers created satisfied customers'; price, product, and service. If the firm manages to deliver on these drivers, it would keep its customers'. In this manner, the after sales services provided by ODIM was crucial. Key to their philosophy was "it was never a discussion if we should fix a problem, rather how to solve it". As noted earlier, ODIM maintained critical stock levels to react quickly if something happened, in order to reduce the risks. This mindset explains ODIM' service and after sales services.

# 4.3.2 Supporting activities of ODIM

Firm infrastructure is a support activity since it concerns the whole organization and value chain. These activities include general management and planning and financing activities within the firm which can be considered a source of competitive advantage. ODIM included the whole organization to work towards the firm's visions and goals, and their vision was to create solutions that enhanced the customers' efficiency (ODIM, n.d-b). ODIM employed a democratic decision-making approach, hence low power distance (Deresky, 2017). The employees were often involved in discussions and decisions at their level, which provided ODIM with broader information when making decisions on behalf of the entire organization. Mr. Romestrand expressed that many criticized ODIM's leadership style and argued that employees would become more demanding if they were included in important decisions. However, the management of ODIM experienced the opposite of this critique. They argued that this type of leadership contributed to a stronger and more passionate workforce. In addition, the democratic leadership style and the ability to involve employees in decisions contributed to a sense of belonging and community feeling, which was a source of competitive advantage for ODIM. An indicator of good organizational culture within the company was the low sick leave rate due to satisfied employees.

*Human resource management* concerns all activities in regards to personnel, e.g., recruiting, hiring and training. Similar to infrastructure, human resource management also affects the whole organization and entire value chain. Recruiting, hiring and training staff are crucial

processes in a business since they influence the performance of each primary activity which further effect margins, i.e., competitiveness of firms. As noted earlier, in the Seismic industry firms might encounter challenges in terms of accessing suitable human resources.

The rapid growth within the Seismic industry increased the competition for qualified personnel among the firms within the cluster. Despite this, ODIM managed to recruit and hire qualified personnel due to their reputation, incentive program, stock options and working environment. Furthermore, the management of ODIM was conscious that every employee who was in contact with existing or potential customers', should receive training and attend courses. ODIM believed that training was crucial because employees were representing the firm's values, behaviors, and ethics.

Technology development concerns every activity within the value chain and aims at improving existing products and/or processes. ODIM experienced a shift in terms of focus, i.e., they became a more technology-oriented business. Technological development and project management were considered as essential drivers for ODIM because they influence the performance of the primary activities. ODIM constantly tried to improve existing technology as well as foster inventions by recruiting and hiring talented employees. This justified the changing focus of ODIM. Project management was considered core and concerned the responsibility in terms of overall progress and management of all activities until the project was completed. The project manager was also responsible for the quality and economy of the activities in terms of validating calculated costs. A well-defined strategy is important in order to avoid getting *stuck in the middle*. The technological drive in the Seismic market forced companies within the industry to constantly developing innovations to keep pace and satisfy customer interests.

*Procurement* is the purchasing process of goods and services, and this activity tends to be spread across the whole organization (Barnes, 2001). As mentioned earlier, before ODIM became more cost-focused, the engineers had the responsibility for making purchases. After the shift, ODIM hired professional purchasers to handle all purchase activities within the company. In order to achieve desired prices, the purchasers created competitive situations among their vendors. This enabled ODIM to be more long-term focused, which helped them able to save costs.

## 4.3.3 The margin of ODIM

A firm achieves competitive advantages and improves margins by performing the primary and supporting activities better or cheaper than its competitors (Barnes, 2001; Keller & Kotler, 2016). The core competencies of ODIM were logistics, marketing & sales and after sale services. These activities were well-defined as their core competence, which enabled them to take appropriate strategic decisions in terms of outsourcing. In addition, ODIM managed to structure their supporting activities in a way that contributed to increased technology innovations, firm infrastructure, human resources, and procurement. In this manner, ODIM managed to improve their competitiveness by performing their primary activities optimally due to the influence of supporting activities (cf. figure 4.3).

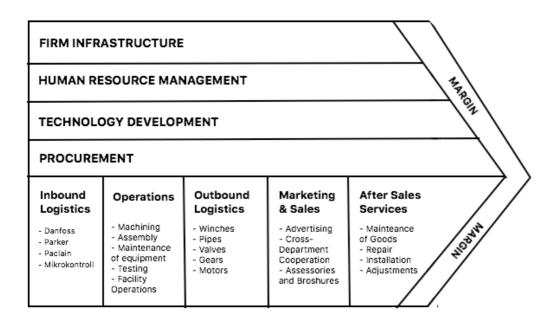


Figure 4.3: The General Value Chain of ODIM - developed by Porter (1985).

As an extension to the general value chain (cf. figure 4.3) developed by Porter (1985) we have established a more specific value chain of ODIM, in order to map their total value (figure 4.4). The general value chain helped ODIM identify drivers and factors that improved their supply chain performance in terms of efficiency and responsiveness, i.e., focus towards core activities and create margins. This value chain includes the same supporting activities as introduced by Porter (1985) whereas presenting an extension to the primary activities, hence technical department. ODIM considered their technical department as core due to the importance of obtaining knowledgeable engineers in order to foster development and

innovations. Based on this, it is essential to include technical department in the value chain of ODIM. The technical department was responsible for engineering and evaluations in terms of technical assessments, technical support, drawings, constructions and the creation of technical specifications. The cooperation between the engineers at the technical department and customers' in order to create new and specialized innovations can be considered one of the explanatory factors of ODIM's success.



Figure 4.4: The Value Chain of ODIM - based on Porter (1985).

# 4.4 Generic strategies

As previously mentioned in section two, a company can achieve results above average if they manage to create and maintain competitive advantages. Companies who maintain competitive advantages has the ability to differentiate and distinguish themselves from their competitors while simultaneously operating at low costs. Porter (1985) introduced three generic strategies which enabled companies to generate results over the industry average. This tool can help improve the companies competitiveness based on how broad or narrow the industry segment is (figure 4.5). During this section, we will examine ODIM's position and further justify their choice of generic strategy. The strategy was extremely important for ODIM in order to establish a clear path for the whole organization.

As earlier noted, the Seismic industry was characterized by a technological drive which enabled firms to invest in research and development in order to obtain competitive advantage. ODIM tried to ensure future income and market share by creating new ideas and innovations along with the customers'. We thus conclude that ODIM obtained an offensive competitive strategy where the primary goal was to dominate the market by differentiation in order to stay ahead of current and potential competitors, hence achieve competitive advantage. As illustrated in figure 4.5, the competitive scope of ODIM was considered broad since they supplied to several market segments. However, due to their supply of complex technological systems, we might consider the competitive scope in between broad and narrow, hence the position of ODIM in the generic strategy framework. ODIM argued that Norway as a high-

cost country gave little room for a low-cost strategy. This justifies the choice of competitive strategy, hence differentiation and differentiation focus. Fortunately, they were able to charge higher prices than their competitors due to their ability to create and cultivate uniqueness in the market.

The logic behind a differentiated strategy is to improve the firm's competitiveness by supplying product or systems, which are unique (Porter, 1985). To successfully achieve the desired objectives as a differentiated company, ODIM implemented three-year plans to ensure long-term thinking and continuity. However, it is essential to keep in mind that the purchasing and logistic strategies of ODIM also played a significant role in their differentiation strategy. In other words, the strategic actions in terms of purchasing and logistics, increased product availability, reduced time to markets and response time, which again resulted in increased customer satisfaction and loyalty.

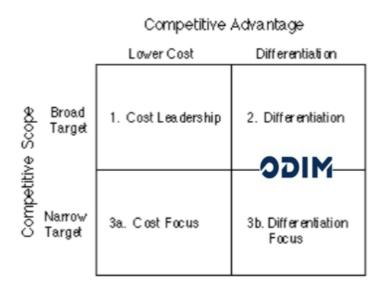


Figure 4.5: Generic Strategy of ODIM - based on Porter (1985).

The theory states that in order to protect and preserve innovations and at the same time create and maintain competitive advantages, companies may acquire patents (Lipczynski, 2013). In ODIM's case, patenting was never of relevance, due to their focus on constant innovations and improving existing products and systems. This was justified by their statement; *a great innovation today, can be worthless tomorrow*. ODIM's management also argued that patenting was a time-consuming and costly process. Based on this, ODIM decided to have

their focus on R&D and not patenting. However, we think that ODIM's technology and innovations could be considered as an economic asset, if they had obtained patents, especially on the ROV system and Spectrum blocks. Therefore, retrospectively we believe that ODIM should have considered obtaining patents as an option to secure future income and market shares. On the other hand, the management of ODIM justified they actions and argued that patents could contribute to exploitation of monopoly power, which would further decrease the competitors' incentives to invest in R&D. In other words, the technological progress within the industry would decline.

# 4.5 VRIO-framework

The VRIO-framework is a strategic tool that illustrates and analyze a firm's internal resources and capabilities. As mentioned in section two, the VRIO-framework highlights four different questions that reflect the firm's opportunities of sustained competitive advantage; the questions of value, the questions of rarity, the questions of imitability and the questions of organization. Resources or capabilities that meet all the requirements in terms of these questions will be considered as a strength and/or opportunity, that can be exploited by the firm, i.e., a source of sustainable competitive advantage. On the other hand, a resource or capability that does not meet all these requirements will be considered a weakness and/or threat, i.e., competitive disadvantage or parity (Jay B. Barney, 2014). In short, the VRIO-framework highlights which resources or capabilities that make the business unique. We will utilize and present this matrix to map and illustrate ODIM's essential resources and capabilities, which contributed to value (cf. figure 4.6). The relevant resources and capabilities were: capital, reputation, human resource, customer relationship, and technology.

#### 4.5.1 Capital

Capital is a valuable resource, which can be utilized in many ways, such as finance research and development. Capital and R&D can result in new inventions and technologies, which the companies might exploit in order to increase profitability and act on opportunities. As noted earlier, ODIM had limited equity and was therefore dependent on customers' prepayment. This cooperation between the customer and ODIM enabled ODIM to acquire the necessary capital to foster new technology and innovations. In addition, obtaining adequate capital is essential to neutralize potential threats in terms of technological changes. If resources are

difficult and costly to imitate, they can be considered a competitive advantage. However, in ODIM's case, we consider capital as common due to its easy accessibility. Capital is neither rare nor difficult to imitate since there are many possible ways to acquire necessary capital for investments, operations and R&D, such as bank loans, issuing bonds or stocks and obtaining private equity funding. Since capital is neither rare nor difficult and costly to imitate, we conclude that the capital only contributed to competitive parity for ODIM. However, if ODIM failed in employing the optimal amount of capital, they could experience competitive disadvantages.

#### 4.5.2 Reputation

The reputation of ODIM could be considered as a valuable resource since it increased customers' willingness to pay for the products or systems. In addition, the respondents' also indicated that the strong and established reputation of ODIM was also valuable in challenging situations. In other words, if something happened and ODIM needed to react quickly, customers' were sure that the issues would be fixed. A firm's reputation is unique for each individual company, and building and preserving it is a time-consuming and costly process. Based on this, we conclude that reputation as a resource is both rare and costly to imitate. However, reputation building is seen as a process, which needs to be continuously renewed, organized and maintained, due to trends, environmental changes and unforeseen events. An example of this was how ODIM reacted to recessions in terms of layoffs and dismissals. ODIM was determined to keep their employees although they experienced downturns. This action contributed to an increased reputation and affiliation because the people involved felt appreciated. In this manner, we would characterize ODIM's reputation as a source of temporary competitive advantage.

#### 4.5.3 Human resources

As mentioned above, ODIM managed to obtain a qualified and strong workforce due to their reputation and incentive programs. ODIM's human resource endowment was definitely considered as valuable, since it enabled ODIM to increase their responsiveness to environmental changes and seize opportunities. In addition, its workforce was essential to increasing knowledge and foster development. This technological drive promoted new and specialized technologies which contributed to increased customers willingness to pay for its products. The management of ODIM also implemented incentive programs such as bonuses

and stock options, which further contributed to a motivated and enthusiastic workforce, hence reducing moral hazard issues.

Jay B. Barney (2014) suggests that resources which are considered valuable and rare might be a source of competitive advantage. Although the maritime cluster experienced high competition for the best personnel, it never seemed a problem for ODIM to acquire qualified employees. An explanatory factor might be the reputation the firm possessed in terms of organizational structure and incentives. The readily access to a professional workforce enjoyed by ODIM was not necessarily obtained by its competitors, further suggesting that the human resources of ODIM were both valuable and rare.

The process of recruiting and hiring personnel is both a time-consuming and expensive process. If resources or capabilities are valuable, rare and costly to imitate, this indicates that the resource or capabilities might be a source of sustained competitive advantage. ODIM can only achieve this if the competitors face cost-disadvantages in acquiring skilled and qualified human resources. Imitating resources can either be done by direct-duplication or create substitutes to the existing resources (Jay B. Barney, 2014). However, direct duplication of human resources is difficult because every individual is unique, and cannot be copied. Moreover, creating substitutes might be an option for competitors, but due to cost-disadvantages, it would be considered as non-profitable. Based on this, we conclude that the human resources of ODIM were not imitable.

Even if a company possesses resources that are considered as valuable, rare and non-imitable, it is not automatically guaranteed competitive advantages. Companies that possess these resources must fully utilize and organize them to exploit the whole potential for obtaining sustained competitive advantage (Jay B. Barney, 2014). The respondents' described the human resources and the process of recruiting and hiring skilled workforce as essential to their success, hence as a core competence. This was because the human resources operated the core activities of the value chain. In other words, the management of ODIM organized and trained their employees, in order to fully utilizing their potential. On this basis, we conclude that ODIM's human resources contributed to sustained competitive advantage.

## 4.5.4 Customer relationships

ODIM defined their customer relationship as a core competence and considered it as extremely important in a differentiation strategy. ODIM's ability to achieve strong customer relationship was definitely an internal strength. These long-term customer relationships created trust and loyalty, which further increased customers' willingness to pay for its products and services. This indicates that ODIM's customer relationship was a valuable resource, which strengthened the firm's competitive position.

However, such strong customer relationships are rare and hard to acquire due to their being time-consuming and entailing long-term processes. Moreover, each individual relationship is unique and therefore virtually impossible for competitors to imitate. ODIM constantly tried to establish new customer relationships and maintaining existing ones, by engaging themselves with the customers' both at a professionally and socially level. Based on this, we conclude that ODIM's customer relationships were both rare and non-imitable. ODIM's management implemented compulsory sale courses for employees due to their interactions with customers'. These courses enabled the employees to act in the best interest of the firm. In addition, the well-organized strategic management process developed by ODIM contributed to substantial and long-term customer relationships. In this manner, we can conclude that ODIM's capability to build strong customer relationships as well as maintaining already existing ones, contributed to sustained competitive advantage.

#### 4.5.5 Technology

As mentioned earlier, ODIM was an international technology group that developed products and systems that enhanced the efficiency of customers' businesses, i.e., increased customers' profitability (ODIM, n.d). In other words, the specialized technology and innovations that ODIM developed increased the customers' willingness to pay, i.e., the technology was particularly valuable as long as ODIM constantly developed it further. As earlier noted, the technological drive within the industry was very high. Due to this, every company needed to develop and introduce innovations in order to stay unique and maintain customers' interest.

ODIM specialized in dealing with challenging and demanding activities in order to increase market shares and obtain monopoly power. A differentiated strategy is a time-intensive and costly process, which further increases the costs in terms of substitution and imitation. Based on this, we can define the technology of ODIM as valuable, rare and not imitable. ODIM's

management cooperated with customers' to weed out errors and adjust customer preferences. It was important for ODIM to constantly work to utilizing knowledge and foster new technologies to obtaining a sustained competitive advantage. Therefore, we can state that ODIM's technology was a core resource that had a considerable impact on their success and market position.

Resource and capabilities	Valuable	Rarity	Imitability	Organization	Results
Capital	Yes	No	No	No	Competitive Parity
Reputation	Yes	Yes	Yes	No	Temporary Competitive Advantage
Human Resources	Yes	Yes	Yes	Yes	Sustained Competitive Advantage
Customer Relationships	Yes	Yes	Yes	Yes	Sustained Competitive Advantage
Technology	Yes	Yes	Yes	Yes	Sustained Competitive Advantage

Figure 4.6: VRIO-Framework of ODIM - based on Jay B. Barney (2014).

Modern empirical research, also known as the Schumpeterian revolution, has criticized the VRIO-framework's ability to identify sustained competitive advantage. Jay B. Barney (2014) argues that it is important to notice that sustained competitive advantages today is not a guarantee that such advantages will be sustained in the future. ODIM constantly tried to adjust to the rapid occurring in this industry. In order to maintain sustainable competitive advantage, they cooperated with research institutions, implemented (ERP) systems (Movex) and new technologies, and recruited highly skilled employees.

#### 4.6 Growth barometer

In this section, we analyze ODIM in terms of Ahrens' (1998) growth analysis and further develop a barometer in terms of a *cobweb* figure 4.7. We develop the cobweb on the basis of scores given by the respondents' and compare the results with our findings. Ahrens argued that for companies to be considered as a growth company, they need to fulfill twelve factors.

The factors are as follows; growth focused owner, growth funding, growth potential, time-monopoly, focus, market creation, international power, dynamic efficiency, hard-soft management, tent organization, growth leadership and management power.

He further suggested that companies had to obtain a financial growth of minimum 25 percent over six years to be considered as growth companies. We believe that this tool should be included in the research because it can serve as an explanatory factor in terms of ODIM's success and at the same time map their position. As earlier noted in section 1.1.1, ODIM experienced rapid growth from 2003-2009, which fulfills Ahrens requirement of 25 percent growth over six years.

# Growth Focused Owners Management Power Growth Funding Growth Leadership Tent Organization O Focus Dynamic Efficiency International Power

The Growth Barometer of ODIM

Figure 4.7: Growth Barometer of ODIM – based on Ahrens (1998).

#### 4.6.1 Growth focused owner

Growth focused owners, managers, and employees are crucial to achieve success and fully utilize the growth potential. However, growth-focused leaders need to be able to act fast and obtain adequate capital when environmental changes occur (Ahrens, 1998, 2005). As mentioned earlier, ODIM accomplished to establishing a common culture and vision throughout the whole organization. In this case, the owners, managers, and employees were motivated to work towards the same objectives. ODIM also managed to acquire the necessary

capital through prepayments to react if significant environmental changes occurred enabling the company to execute its business activities satisfactorily. Based on this, we can justify a score of 6 in the growth barometer.

## 4.6.2 Growth funding

Ahrens (1998) argues that considerations in terms of cash-flow, time and responsiveness to changes in the business environment are the main focus areas of rapid growth companies compared to others. ODIM experienced rapid growth, especially from 2003-2009. This resulted in less time and focus towards long-term strategic planning than was desirable, which is often a challenge in cyclical industries. *Total capital needed increases in line with sales* (Ahrens, 1998, 2005). In other words, access to adequate capital is crucial for companies to grow. As noted earlier, ODIM managed to acquire capital by obtaining strong customer relationships, which contributed to loyalty and prefunding. Although ODIM did not possess a large amount of equity capital, they managed to acquire the capital needed in terms of prepayments. In other words, we conclude that ODIM's ability to obtain external capital compensated for limited internal financial power. In this manner, ODIM managed to reduce their financial risks due to shared investment risk. However, if ODIM had failed in the attempt of acquiring capital, it could have had huge repercussions in terms of stagnant growth. Based on this, the score of 3.3 is justified to the extent that ODIM did not create the capital internally.

#### 4.6.3 Growth potential

Companies that are surrounded by little bureaucracy, complacency and practice lean, have increased growth potential (Ahrens, 1998, 2005). According to our external analysis, we found that an explanatory factor of ODIM's success during this time period could be the increased activity from the Oil and Gas industry. This increased the prerequisite for ODIM's success and growth potential. The lean philosophy can be seen as a foundation of the sourcing decisions of ODIM, i.e., optimizing resources. As previously mentioned, ODIM outsourced their production to extend their capacity and at the same time increase their focus towards their core activities. This strategic decision enabled ODIM to focus on development and innovations, which increased both the internal and external growth potential. By constantly developing and innovating, ODIM managed to boost customer interests, which again led to increased demand and growth within the industry. Based on this, we can say that the internal

and external growth potential of ODIM was high, which justifies the respondents' score of 5.3.

## 4.6.4 Time-monopoly

Time-monopoly refers to a business ability to behave as monopolists due to their market control and fast pace (Ahrens, 1998). ODIM obtained time-monopoly power by constantly introducing new technology, setting trends and responding to customers' needs in a fast pace. This contributed to entry barriers preventing competitors from challenging ODIM's time-monopoly. ODIM defined themselves as a technology enterprise, and their core competence was technological development, imitate knowledge of customer needs and strong customer relationships. The constant collaborations with customers' contributed to increased knowledge, which further led to the development of new and existing products and systems, i.e., the company became a trendsetter. Customer relationships were of essences to ODIM. Accessibility at all times was important for ODIM, both before and after the products and systems were delivered: *Committed for the life of the product* (ODIM, n.d:1). This meant to maintain and sustain their strong relationships. Consequently, ODIM formed an after sales service that was available 24/7 (ODIM, n.d).

As mentioned earlier, ODIM outsourced their production to increase capacity, which contributed to shorter delivery time. This highlights ODIM's ability to use time as a prime sales argument to customers', e.g., faster delivery than competitors. According to our findings, we have the impression that ODIM had time-monopoly power due to their constant development. This supports the respondents' score of 6 in terms of time-monopoly.

#### 4.6.5 Focus

Focus is crucial to create rapid growth. The main essence of this driver is that leaders, management, and employees focus on core activities rather than all aspects of the organization (Ahrens, 1998). In this case, outsourcing decisions became relevant. ODIM defined their core activities as *marketing and sales, engineering, logistics and after sales services*. ODIM had specialized knowledge within each of these activities, indicating the focus on core activities. The focus on core activities meant that the company would also outsource production. However, we believe that ODIM could have considered to outsourcing other activities, narrowing their focus even more. Therefore, we believe that the score of 5 from the respondents' is fair.

#### 4.6.6 Market creation

Market creation is considered one of the key drivers for rapid growth companies, due to their ability to create new paths instead of following competitors (Ahrens, 1998). Companies can increase their market shares by entering into strategic alliances, cut prices, increasing marketing effort or by acquisitions. Firms can create new markets by introducing innovations or improving already established products or systems. ODIM managed to increase their market shares and create new markets by performing several of these actions. First, they were able to increase their market shares by purchasing potential and existing competitors, e.g. Spectrum and Hydrakraft. Illustrated in the Kraljic matrix (figure 4.7), ODIM was dependent on the supply from *Microcontrol*. Therefore, ODIM went into a strategic alliance with *Microcontrol*, to ensure and control the supply of strategic items, which further limited competitors' access. Finally, they also managed to create new demands and markets by introducing innovations and improving established products and systems. This mindset can be considered as the foundation of differentiation strategy. However, there were opportunities for creating even more demands due to changing preferences and trends; hence respondents' score of 5,67, which we consider fair.

#### 4.6.7 International power

A firm's competitive position in relation to international rivalries constitutes its international power. Past experiences, prices, product quality and access to financial capital determine the international competitive position of a firm (Ahrens, 1998, 2005). ODIM was able to create high-quality products and new technologies as a result of past experiences. In addition, ODIM enabled themselves to increase product quality by collaborating with their customers' in terms of their preferences and needs. The customers' believed in the knowledge and technologies of ODIM, which resulted in access to capital. It was important for ODIM to enhance profitability and efficiency of customers' businesses. This was done by introducing innovative types of equipment and technologies that enabled customers' to operate under more demanding conditions. However, the environment and trends are in constant change, which further forces the companies to stay alert to sustain their international competitive position. This in combination with the international rivalries determines the firm's international power. The score of international power of ODIM was 5.3, which agrees with our finding and conclusions.

#### 4.6.8 Dynamic efficiency

Dynamic efficiency refers to how well companies can spread their information internally. Firm's that accomplish high dynamic efficiency have the capability to quickly react to environmental and technological changes (Ahrens, 1998, 2005). In the beginning, ODIM experienced weak information flow due to the lack of data systems. However, in order to improve the information and process flow across the whole organization, ODIM implemented an ERP system, Movex. This contributed to a common platform for information sharing, which ensured less misunderstandings and confusion among the employees. This data system was important to reacting fast to environmental and technological changes since it created an overview of the company's assets as well as structuring the employees. Its implementation was especially important when ODIM considered outsourcing, to ensure better information flow and control. However, in retrospectively, the dynamic efficiency could be improved, but due to the status of the technology at the time, we agree with the respondents' score of 4.67.

## 4.6.9 Hard-soft management

This type of leadership style concerns combining hard control and soft value in order to reach common goals. The working environment in hard-soft management promotes results, constant learning and encouragement of personal achievements. The business culture within such leadership styles motivates the whole organization to constantly working towards the firm's objectives (Ahrens, 1998, 2005). An example of this leadership style can be illustrated by a situation where ODIM sent employees to foreign customer's abroad to secure contracts. They were instructed that they were not allowed to return home unless they secured the contract. Needless to say, they would have been allowed to return home irrespective of the outcome of the negotiations, but this incentive encouraged the employees to perform well and secure the contract. Simultaneously, ODIM employed soft internal values. Stock options, bonuses, social events, focus on personal relationships and low power distance are instances where ODIM focuses on its employees and their wellbeing. However, there is always room for improvements due to personal characteristics and preferences. It is impossible to practice a leadership style that meets all needs. Some individuals prefer soft leadership and values, whereas others prefer hard leadership styles. This justifies the respondents' score of 5.

# 4.6.10 Tent organization

The characteristics of any tent organization are common attitudes and goals. The climate surrounding the enterprise determines whether a company is considered stable or in rapid

growth. Stable companies rely on continuity and conformity while rapid growth companies are surrounded by turbulence and constant change. As a result of this, rapid growth companies might experience advantages in terms of the ability to reacting fast to any environmental changes, threats or opportunities (Ahrens, 1998, 2005). As noted earlier, the common organizational culture and lack of hierarchy in ODIM contributed to a motivated and enthusiastic workforce, which worked toward the firm's overall objectives. To achieve an efficient and proper tent organization, ODIM implemented an ERP system, which fostered collective attitudes, control, increased information flow and responsiveness. In addition, the prepayments received from customers' were also an essential driver in terms of ODIM's responsiveness. This in combination with constant turbulence and changes within the Seismic industry, made ODIM able to react fast to potential threats, opportunities and environmental changes. However, it is impossible to predict the outcome of the changes within the Seismic industry, which means that a score of six would be hard to accomplish in this case. We can, therefore, state that ODIM was a tent organization, and agree that a score of 5,5 seems reasonable

# 4.6.11 Growth leadership

An effective growth leadership style has large impact on the motivation of all parties within an organization. This type of leadership style enables companies to secure progress, avoid hierarchy and cultivate innovations and inventions. In other words, leadership style causes major repercussions (Ahrens, 1998, 2005). As previously mentioned, ODIM had low power distance, i.e., employed a democratic leadership style where employees were involved in discussions and decisions at their level. Because of this, ODIM possessed broader information when making decisions on behalf of the entire organization. Such leadership style secured progress and motivated the whole organization, which further cultivated innovations and new technology. Simultaneously, the leadership style also contributed to a stronger and more passionate workforce. Despite this, Mr. Romestrand elaborated that ODIM experienced criticism in terms of their leadership style and argued that it can be risky to include employees because they could become more demanding if they were partakers in the decisions. However, the monopoly power obtained by ODIM is a strong indication that their growth leadership style was successful. Based on this, we conclude that the score of 5 within growth leadership is reliable and valid.

#### 4.6.12 Management power

This driver reflects a firm's ability to create a harmonized management team which consists of well-educated people in combination with growth-experienced personnel. This entails managers being able to optimize and coordinate staff and their decisions satisfactorily. In addition, the research argues that separations between leaders and administration can affect the firm's performance negatively (Ahrens, 1998, 2005; Jacobsen, 2013). We believe that the management team of ODIM had the ability to create a harmonized team because they managed to obtain both experienced and educated personnel, e.g., Mr. Eilertsen with strategy knowledge and Mr. Dragsund with long-term growth experience. Mr. Eilertsen entered the firm with knowledge that helped the whole management to make strategic decisions by visualizing the choices that reflected the firm's nature. Whilst, Mr. Dragsund had over 30 years of experiences in terms of growth and recessions within the cyclical industry. This combination enabled ODIM to create a harmonized management team, which contributed to keeping a short distance between the administration and the top management. In other words, both divisions worked towards the same vision and goals. However, even though the score of 5,67 is high, there will always be room for improvements. In conclusion, we agree with the respondents' score of 5,67.

# **CHAPTER 5**

# 5. Conclusion

In this master thesis, we attempt to find explanatory factors that contributed to ODIM's rapid growth and success as a major industrial player in its field. To this end, we established an appropriate research question, which was presented in chapter one: *How did the growth company ODIM become a world-leading player in its domain?* In order to summarize our findings, we use the SWOT framework exhibiting ODIM's strengths, weaknesses, opportunities and threats (cf. figure 5.1). This matrix visualizes the primary drivers that contributed to ODIM's dominant position within the Seismic industry.

The constant technological drive within this industry during ODIM's particular period of time, contributed to huge financial investments in the Oil and Gas industry, spilling over to the Seismic industry. ODIM was an international technology enterprise well-known for their innovative, efficient, safe and reliable systems. The company's strategic goal was to create solutions that enhance the efficiency of their customers' businesses. They collaborated closely with their customers' creating solutions that addressed specific customers' challenges. This contributed to several advantages such as long-term customer relationships, strong reputation, and specialized human resources. This in combination with a democratic decision-making approach was the main driver for increased competitiveness and new technological inventions.

Moreover, since ODIM constantly tried to differentiate their products by introducing new technologies, setting trends and responding to customers' needs in a fast pace, they were able to obtain time-monopoly power. This calls to mind the statement by Christopher Freeman (1982) that: *not to innovate is to die* (Trott, 2013, p. 5). This strategy caused entry barriers preventing competitors from challenging ODIM's position and time-monopoly. This further increased the distance between ODIM and its competitors, i.e., fast pace made it harder for competitors to imitate. In other words, ODIM obtained monopoly power and served 80 percent of the world market. However, it is important to keep in mind that ODIM's limited internal financial power was considered as a weakness, although compensated by their strong customer relationships through prepayments from cash positive projects. By receiving

prepayments, ODIM could further focus on their core activities to foster new technologies and innovations. As a result of ODIM's strengths and strategic actions, they were able to create more demand for their products and systems which increased their profitability. This is a typical example of ODIM utilizing their strengths (customer relationships) in order to reduce their weaknesses (capital).

In this study, we have found several explanatory factors that played an important role in ODIM's success. One factor is the general industry growth of the particular time period from 2003 to 2009 (cf. graph 1). We believe that this underlying growth increased the prerequisites of ODIM's success. Further, the VRIO-framework (cf. figure 4.6) presented in section four, highlights the resources and capabilities that gave ODIM temporary and sustainable competitive advantages. In other words, these were essential to explaining ODIM's success and answering our research question. We conclude that *reputation*, *human resources*, *customer relationships*, *and technology* played a key role of ODIM in explaining why ODIM became the world-leading player in its domain. In light of our research and findings, we consider ODIM as an attractive candidate for acquisition. It is therefore easy to understand and agree with the strategic decision made by Rolls-Royce in terms of acquiring ODIM in 2009. Figure 5.1 summarizes in terms of a SWOT matrix the kind of analysis we imagine Rolls Royce must have made prior to acquiring the company. We believe our analysis reveals that the strengths and opportunities far outweigh the weaknesses and threats, in as much as strengths often addressed and produced the answer as to how overcoming its weaknesses.

Strengths	Weaknesses		
<ul> <li>Monopoly Power</li> <li>Technology</li> <li>Customer Relationships</li> <li>Human Resources</li> <li>Reputation</li> </ul>	Lack of Long-Term Strategic     Planning     Higher Price Level than Competitors     Limited Internal Financial Power     Highly Dependent on Microcontrol		
Opportunities	Threats		
<ul> <li>More Outsourcing</li> <li>Industrial Growth</li> <li>High Entry Barriers</li> <li>Opportunities for SCA</li> </ul>	Cyclical Fluctuations     Technological Changes     Imitation of Products     Lack of Control in terms of Outsourcing		

Figure 5.1: SWOT-Matrix of ODIM - based on Künzli (2012).

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