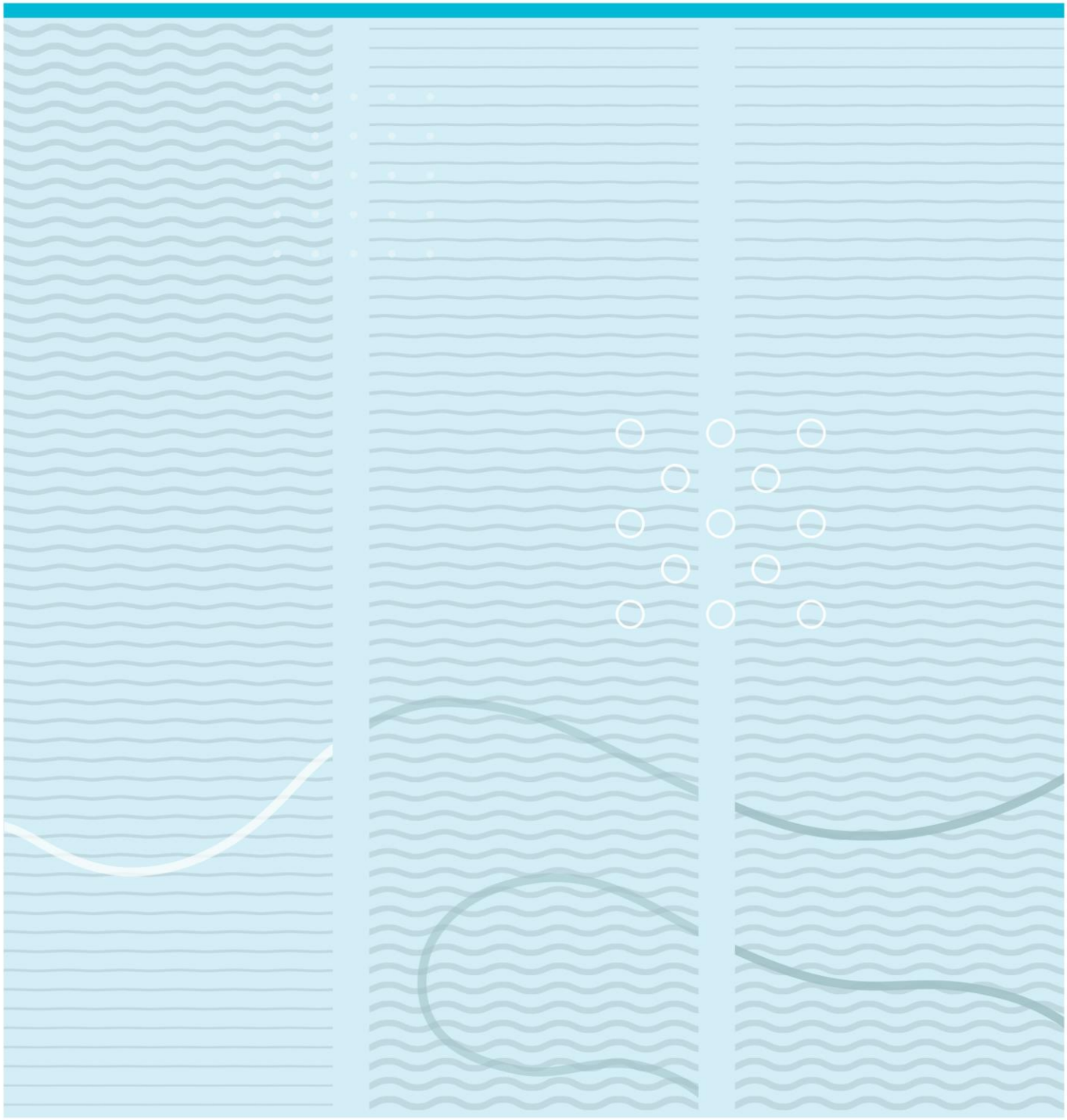
University College of Southeast Norway
School of Business
–
Master Thesis
Study programme: Industrial economics
Spring 2017

Knut Philip Thjømøe

Competitive advantage in dynamic markets

A qualitative approach to competitive advantage with a holistic multiple-case design



University College of Southeast Norway
School of Business
Department of Business, Strategy and Political Sciences
PO Box 235
NO-3603 Kongsberg, Norway

http://www.usn.no

This thesis is worth 30 study points

Preface

This master thesis is the final dissertation in the study programme Business administration with a specialization in Industrial economics at the University College of Southeast Norway. The topic of this master thesis is competitive advantage in dynamic markets. Several complementary and competitive theoretical frameworks have been developed which intrigued me to conduct an empirical investigation of the phenomenon. This master thesis has presented many difficult challenges, especially in regards to the methodological choices. However, it has been motivating to use my theoretical knowledge to make practical choices. The decision of writing alone has had both its benefits and drawbacks, and there were times of frustration where a second researcher would be useful. However, looking back at the research process I am confident that the flexibility of being one researcher has increased the quality of the overall dissertation.

Firstly, I would like to thank Boge Gulbrandsen for a very interesting strategy course which resulted in my interest in the phenomenon competitive advantage. Furthermore, I would like to thank the companies that agreed to participate in this study. I would also like to thank the several people who helped me collecting cases and came with helpful suggestion to which industries to target. Lastly, I would like to give a special thanks to my supervisor Eskil Goldeng for great feedback during the entire research process.

Kongsberg, May 15th, 2017

Knut Philip Thjømøe

Executive summary

The general interest in competitive advantage amongst academics has resulted in an extensive development of theoretical frameworks. Different theories fits in different markets based on the market characteristics. Increased globalisation has resulted in dynamic business environments and companies find themselves competing in an innovation-based economy. The resource-based view is one of the most prominent theories of competitive advantage, but is more applicable in static markets. The dynamic capabilities theory is an extension of the resource-based view of the firm and emphasises markets with a high level of dynamism.

The resource-based view assumes that the resources are divided heterogeneously amongst firms in an industry and that these resources are imperfectly mobile. The scarcity of these resources allows firms to benefit from first mover advantages. Resources that are valuable, rare, non-imitable and non-substitutional has the potential to create sustained competitive advantage. In dynamic markets, the theory suggests that the source of competitive advantage lies in the firm's ability to continuously create, change and modify these resources in order to benefit from opportunities presented in the market. Sustained competitive advantage is obtained by continuous repositioning to gain a series of temporary advantages. The purpose of this study is to investigate which factors are important in achieving and sustaining competitive advantage in dynamic markets. Therefore, the research question for this master thesis is as follows.

"*What are the sources of competitive advantage in a business environment characterized by high dynamism, and how is the competitive advantage sustained in such markets?"*

This study uses a qualitative research approach with a holistic multiple-case design. Four companies are participating whereby two are experiencing a competitive advantage and two are experiencing a competitive disadvantage. The data collection was done through structured interviews with two informants from each case. Each case was first analysed separately before I conducted a comparative analysis in order to search for patterns amongst the cases.

The findings of this study support the existing argument that the resource-based view is less applicable in dynamic markets. However, this study also highlights a clear link between the resource based view and the dynamic capabilities theory. Furthermore, this study suggests

that each company possesses dynamic capabilities but the differences lies in the rapidness of which they are deployed. The companies with a competitive advantage has a more continuous deployment of dynamic capabilities than the companies with a competitive disadvantage. The findings also suggests that dynamic capabilities are necessary to simply survive in a dynamic market. Practitioners should strive to obtain a company culture that manages internal changes well in order to adjust to the market dynamism. This study contributes theoretically by emphasising that time is an important factor when describing the phenomenon competitive advantage in dynamic markets. A competitive advantage cycle was identified which supports the argument of the dynamic capabilities theory that companies can obtain sustained competitive advantage through a series of temporary advantages.

Table of contents

List of figures

1.0. Introduction

In the field of strategy, one of the fundamental questions is how firms obtain and sustain competitive advantage. Several scholars have contributed to the explanation of this question and multiple theories have been developed (Teece, Pisano, & Shuen, 1997). One of the leading strategy academics, Michael Porter (1980), built on the traditional Industrial Organisation framework by Bain (1956) and Mason (1939), and argued that the firm's performance is affected by the external forces in the industry. The differences in firm performance is a result of how well the firms exploit these forces. Whereas the competitive forces approach by Porter (1980) takes an 'outside-in' perspective on explaining competitive advantage (Spanos & Lioukas, 2001). The resource-based view of the firm takes an 'inside-out' perspective and looks at the resources that resides within the firm, suggesting that these factors are the determinants for differences in performance. The firms' ability to obtain a sustained competitive advantage lies in their internal and external resources, as long as the resources possess the VRIN-attributes (Barney, 1991).

However, in an increasingly globalised world where markets are characterized by rapid changes in the competitive landscape, the resource-based view of the firm does not adequately explain the new sources of competitive advantage (Eisenhardt & Martin, 2000; Teece et al., 1997). Different business environments demands and emphasises a different set of firm attributes. Not only for the firm to sustain or gain a competitive advantage, but to simply survive as a business. For example, static markets and markets with a low level of dynamism does not emphasise the firm's ability to deal with uncertainty. In dynamic markets, firms must be able to respond to quick changes in order to maintain their position (Teece, 2007).

In his work from 1990, Porter presents a theory on *the competitive advantage of nations*. Porter (1990) argues that the source of competitive advantage depends on which of the three competitive development stages the economy currently resides in. In a *factor-driven economy,* firm performance is determined by low input costs. Firms that utilize low-cost labour and other input factors to produce less advanced products will obtain a competitive advantage. In an *investment driven economy,* the firm's competitive advantage lies in the production of more advanced products. Firms' large investments results in more efficiently production of goods and services. Economies that are currently in the *innovation-driven stage* face strong competition and uncertainty in the business environments. In such dynamic markets, the dominant source of competitive advantage lies in the firms' ability to innovate. Innovation is

not limited to goods and services, but to for example processes and business models as well. The goal is to offer unique value to the customer, with the use of an unique strategy (Porter, 1990). In most western countries with high income, the firms' competitive advantage and survival relies on the ability to innovate.

The Dynamic Capabilities framework draws on the resource-based view framework but considers market dynamism when identifying the source of competitive advantage. Whereas the resource-based view considers the nature of rents to be Ricardian, the dynamic capability framework argues that competitive advantage is obtained through Schumpeterian rents (Teece et al., 1997). Schumpeterian rents can be thought of as the rents generated from the time a new innovation has been deployed, to the time this innovation has been imitated by competing firms. Dynamic capabilities have many definitions, but can be understood as the firm's ability to transform its resources and ordinary capabilities into competitive advantages. These transformations are processes integrated in the firm, which will try to match the company to changes in the market and the business environment (Teece et al., 1997).

Fundamental strategy theory suggests that the more dynamic a market is the less long-term plans are necessary. In order to operate without extensive long-term plans and compete in such markets, the firm must develop a set of dynamic capabilities (Eisenhardt & Martin, 2000; Teece, 2007; Teece et al., 1997). In this thesis, I will investigate what type of dynamic capabilities are important in dynamic markets and what characterizes them. This could help firms understand and identify which capabilities they possess, which capabilities they must exploit, and which capabilities they need to obtain in order to gain a competitive advantage.

1.1. Research question

Companies are currently facing an increasingly global competitive environment resulting in more market dynamism. Multiple theoretical frameworks have been developed but it is unclear which specific factors are the most appropriate in describing competitive advantage in increasingly dynamic markets. In order for companies to understand how to achieve and sustain this competitive advantage, or to simply survive, the responsible factors needs to be identified and highlighted further. Based on the introduction of this topic and the discussion, I present the following research question.

"*What are the sources of competitive advantage in a business environment characterized by high dynamism, and how is the competitive advantage sustained in such markets?"*

1.2. Structure

This master thesis is structured in the following manner. After this introduction of the topic, I will continue with a description of my literature search process. Then a theoretical chapter follows in chapter 2 where I present the most relevant theory for explaining competitive advantage in dynamic markets. The theories identified will work as a basis for my research. The theoretical chapter will conclude with a discussion and a presentation of a conceptual model. In chapter 3, I will explain the methodological choices made in this research. The chapter starts with an exploration of my philosophical standpoint before I move on to explaining the chosen research approach and research design. After that, I will continue with the sampling and data collection processes before I end with an examination of the study's validity and reliability. Chapter 4 will contain an analysis of the collected data and a discussion will follow in chapter 5. Chapter 6 will contain a conclusion, implications and suggestion for further research.

1.3. Literature search

The selection of this topic was made after a very interesting strategy course in the fall of 2015. In this course, I read the articles of Drnevich and Kriauciunas (2011) & Spanos and Lioukas (2001) and they worked as a starting point for my literature search. There is a high degree of coherence amongst the strategy scholars, and the trail of references lead me to the main articles of both the resource-based view and the dynamic capabilities theory. The articles were found by searching in Google Scholar, Oria and ScienceDirect.

When supplementary literature and empirical articles were needed, I searched the databases ScienceDirect and JSTOR (Journal storage). The following key words were used: *Market dynamism, dynamic capabilities,* and *competitive advantage.* The filter was set to only include articles with one or multiple of these keywords either in the title or as keywords in the articles itself. Articles were phased out based on their title and abstract.

2.0. Theoretical framework

In this chapter, I will outline the most significant and accepted theoretical frameworks developed to analyse the roots of sustained competitive advantage. I will begin by presenting definitions for the key terms used in the competitive advantage theory. Some authors use different terms to describe the same thing. It is therefore important to have clear definitions in order to see the links between the different works from different authors. Some terms are also similar but does actually refer to different things. Later, I will give a brief description of two other significant frameworks: (1) *competitive forces approach* and (2) *The relational view*. I will then continue with a more extensive description of the two most appropriate frameworks to apply in dynamic markets: (3) *The resource-based view* and the (4) *Dynamic capabilities theory*. The theoretical review will conclude with an empirical review of the dynamic capability framework.

2.1. Definitions

Resources

Wernerfelt (1984, p. 172) is considered one of the main contributors of the resource-based view and defines resources as '*anything which could be thought of as a strength and weakness of a given firm. More formally, (…) those (tangible and intangible) assets which are tied semipermanently to the firm.*'

Barney (1991, p. 101) uses a broader definition in his work of the resource-based view, and defines resources as '*All assets, capabilities, organizational processes, firm attributes, information knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness'*

Teece et al. (1997) uses an even broader definition of the term 'resources' than Barney (1991) and Wernerfelt (1984). Even though they do not like the term "resources" they define it as '*firm-specific assets that are difficult or hard to imitate'*(Teece et al., 1997, p. 516) in order to maintain a link between the dynamic capabilities theory and resource-based view. It is interesting to see that in the definitions I have presented, all considers resources to be firm-specific assets. However, Teece et al. (1997) only considers these assets as resources if they are difficult to imitate by others.

Competencies/Resource configurations/Ordinary capabilities

Competencies appears to be used quite vaguely amongst authors, and not often given a specific definition. In the dynamic capabilities theory, competencies can be defined as '*when firm-specific assets (resources) are assembled in integrated clusters spanning individuals and groups so that they enable distinctive activities to be performed, these activities constitute organizational routines and processes*' (Teece et al., 1997, p. 516). Note that Eisenhardt and Martin (2000) uses the term 'resource configuration'. Even though they do not define this term explicitly, it's used in the same matter as 'competencies' are used among other authors.

Drnevich and Kriauciunas (2011) presents the term 'ordinary capabilities' in their empirical article, which can be associated with other authors' use of 'competencies'. They define 'ordinary capabilities' simply as '*those capabilities through which a firm "makes its living" in the short term*' (Drnevich & Kriauciunas, 2011, p. 255).

Spanos and Lioukas (2001, p. 909) defines capabilities as: '[the firm's] *ability to exploit and combine resources, through organizational routines in order to accomplish its targets'.*

Dynamic Capabilities

Teece et al. (1997, p. 516) has the most prevalent definition of the term 'dynamic capabilities' and defines it as '*the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments'.*

Eisenhardt and Martin (2000, p. 1107) builds on the definition of Teece et al. (1997), and defines dynamic capabilities as: '*(…) Dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die'.*

Helfat et al. (2009, p. 121) defines, in their extensive work on the dynamic capabilities theory, 'dynamic capabilities' as '*the capacity of an organization to purposefully create, extend, or modify its resource base, and consists of patterned and somewhat practiced activity'.*

Drnevich and Kriauciunas (2011, p. 255) draws on their definition of 'ordinary capabilities' (competencies) and defines 'dynamic capabilities' as *'those capabilities used to extend, modify, change, and/or create ordinary capabilities'.*

As shown by the definitions, there is a general consensus and acceptance amongst authors of the term ‘dynamic capabilities’.

Competitive advantage and sustained competitive advantage

Barney (1991, p. 102) considers the firm to have a competitive advantage *‘when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors’*. The firm has a sustained competitive advantage when *‘other firms are unable to duplicate the benefits of this strategy’* (Barney, 1991, p. 102). Whereas many researchers view the definition of these terms as implicit, Barney (1991) is one of the few researchers who offers a specific definition. However, this does not mean this definition is particularly good since it is quite tautological (Priem & Butler, 2001; C. L. Wang & Ahmed, 2007). The implementation of a value adding strategy does not necessarily grant the firm any type of advantage towards their competitors. It is not given that this strategy is better than the other strategies deployed, just because it is not available to other firms. A better definition would be: ‘the firm has a competitive advantage when it’s generating more rents than their competitors’ (Hill, Jones, & Schilling, 2014). Sustained competitive advantage does not however, imply that the advantage will last a specific calendar time or ‘for ever’. The competitive advantage will be sustained if there are not possible for competitors to compete the advantage away through duplication, thus the firm will have an advantage for an extended period. Strategic resources cannot be evenly distributed between the firms in an industry, or strategic group, nor can it be highly mobile, for firms to obtain a competitive advantage.

Dynamic markets

Baker and Sinkula (2005, p. 465) takes guidance in the work of Wernerfelt (1984) and define market dynamism as a composition of ‘*(1) change in production/service technology, (2) competitive intensity, and (3) the general rate of change in an industry’.*

G. P. Wang, Dou, Zhu, and Zhou (2015, p. 1930) has a similar view of dynamic markets and defines it as *‘frequent and unpredictable changes in product preferences and customer needs, in product and production technologies, and in the competitive landscape’*

2.2. Competitive forces approach

The most dominant strategic framework in the 80s was the competitive forces approach developed by Michael E. Porter (1980), therefore also known as Porter's five forces. This framework builds on the structure-conduct-model and draws on the intellectual roots from Mason (1939) and Bain (1959). The competitive forces approach views the industry environment as the dominant factor to achieve sustainable competitive advantage. Firm performance is determined by how companies position themselves in regards to industry forces (Barney, 2011). The five forces identified by Porter (1980) are: (1) Threat of new entries, (2) Threat of substitution, (3) Power of supplier, (4) Power of buyer and (5) Degree of competitive rivalry.

2.3. The relational view

The relational view was first theorized by Dyer and Singh (1998) and they argued that the most prominent theories in explaining competitive advantage; competitive forces approach and resource-based view, had overlooked the importance of interorganizational linkages and relations. The theory has some similarities with the resource-based view but differs slightly. The resource-based view focuses on resources possessed by and existing within each firm, but the relational view emphasises the resources that exists between firms. Dyer and Singh (1998, p. 662) argue that firms can earn relational rents and defines this as: *'a supernormal profit jointly generated in an exchange relationship that cannot be generated by either firm in isolation and can only be created through the joint idiosyncratic contributions of the specific alliance partners.'* Relational rents are possible when the alliance partners (1) invest in relation-specific assets, (2) have effective knowledge-sharing routines, (3) have complementary resources and capabilities and (4) have effective governance structures.

2.4. The resource-based view

It is widely accepted among authors that the resource-based view draws its intellectual roots from the seminal work of Penrose (1959) e.g. (Barney, 1991; Teece et al., 1997; Wernerfelt, 1984). Penrose (1959) analysed the firm rather than the industry to explain performance differences and viewed the firm as a set of resources. However, the idea to view the firm as a set of resources has received little formal attention, since the 1950s (Wernerfelt, 1984).

2.4.1. Resource scarcity

The competitive forces approach assumes that the firms within the same industry or strategic group control identical sets of resources. If they are not, however, these resources are highly mobile and can easily be bought and sold in the factor market. If these assumptions were true, the internal resources of a firm would not be the source for sustained competitive advantage (Barney, 1991). The resource-based view on the other hand assumes that there are some degree of scarcity in the available resources in the industry. Firms need to identify the attractive resources and obtain them before their competitors. This resource should in fact generate a resource position barrier, that is, a barrier for other competing firms to obtain similar resource and thus preserve the scarcity. Firms must identify the attractive resources and pick their fights in order to 'win' over their competitors (Wernerfelt, 1984). Dynamic business environments imply shifts in technologies resulting in a situation where new resources can be obtained frequently. However, the changes in customer's preferences and industry players makes it difficult to identify these resources and "pick the correct fight".

The resource heterogeneity and scarcity in an industry allows firms to benefit from Ricardian rents. In other words, the supply of the resources cannot be expanded rapidly to satisfy the demand for such resources. Thus, inferior resources are deployed by firms in order to keep up with the competition (Peteraf, 1993). The resource-based view has therefore two assumptions: (1) Firms within an industry are heterogeneous in regards to the resources they control. (2) The resources a firm can control are imperfectly mobile across firms, thus gives the resource heterogeneously the potential to be long lasting.

2.4.2. First mover advantage

Based on the assumptions above, firms can gain a first mover advantage from obtaining certain resources. Such resources can be: machine capacity, customer loyalty, production experience and technological leads (Wernerfelt, 1984). Firms can also benefit from unique distribution channels, a good reputation and relationship with customers and suppliers. Such resources are difficult for other firms to imitate and gives the focal firm the potential for sustained competitive advantage. In a dynamic market place with rapid changes in the overall competitive landscape, sensing the opportunity for being 'a first mover' reflects a unique resource by itself in the sense of obtaining and analysing industry information (Barney, 1991). Teece (2007) would later consider this attribute as a 'core capability' of the dynamic capabilities.

2.4.3. VRIN-attributes

Barney (1991) developed the VRIN-framework where he tried to explain the link between firm resources and sustained competitive advantage. The framework suggests that the resources must have four attributes (hereby called the VRIN-attributes) in order to have the potential for obtaining sustained competitive advantage. The resources must be (1) valuable, (2) rare, (3) non-imitable and (4) non-substitutable.

The firm's resource is considered *valuable* if it exploits opportunities or neutralizes threats in the business environment. The firm's attribute needs to be valuable to be considered a resource. Thereby, the attribute can have other characteristics such as (2) rare, (3) non-imitable and (4) non-substitutable, but is not considered a resource if it is not exploiting/neutralizing the opportunities/threats in the business environment.

Besides being valuable, the resource needs to be *rare* in order to be the source of sustained competitive advantage. If the resource is possessed by multiple competing firms, then each of these firms will have the opportunity the exploit the same resources as the focal company. Thus, if the resources controlled by the firm is only valuable and not rare, the firm will experience competitive parity. However, managers must not neglect the importance of resources that are not rare. They can ensure the firm's survival by exploiting opportunities to achieve competitive parity.

As discussed, a valuable and rare resource has the potential to give the firm a competitive advantage. Firms that control such resources are often strategic innovators and can be described as first movers. If there is no scarcity of the resources obtained by being a first mover, competing firms will eventually obtain these resources themselves. For the firm to establish a sustained competitive advantage, the resource must therefore be *non-imitable*. Barney (1991) presents three reasons for why a resource is non-imitable: (a) a firm has obtained the resource through unique historical events (this argument draws similarities to the *path-dependencies* argument of Teece et al. (1997) in the dynamic capabilities theory, reviewed later), (b) there is a causal ambiguity in the link between the set of resources a firm possesses and the competitive advantage, (c) the resource that creates a competitive advantage is socially complex.

A firm's location can be a non-imitable resource that was not anticipated at the time of acquisition and is then a result of a historical condition. The human capital resource, for example organizational culture, is also a resource that has been established as a result of the previous choices made by the firm. The organizational culture of a firm is imperfectly imitable and can therefore potentially create sustained competitive advantage, given that it enhances the firm's ability to exploit opportunities or neutralize threats in the environment.

Competing firms will have difficulties imitating a firms sustained competitive advantage if it is not clear which resources cause this sustained competitive advantage. Causal ambiguity causes the imitating firm only to speculate in which resources of the focal firm's resource pool that is the source for their success. The imitating firm might be able to identify the successful firm's resource, but not to link them to the sustained competitive advantage. Barney (1991) argues that even though it seems unlikely that managers will not understand the source of their sustained competitive advantage, the relationship between resources and competitive advantage is so highly complex that such a situation is plausible.

Social complexity is the last reason Barney (1991) presents as a reason for non-imitability. The ability for firms to manage and influence a resource can be limited to their social complexity, and thus constrains competing firms to imitate this resource. Such resources can be firm's reputation, supplier and customer relationships, interpersonal relationships between managers etc.

The last requirement Barney (1991) presents as a necessity for a firm resource to be the source of sustained competitive advantage is that the resource must be non-substitutable. In

other words, the resource must not have a strategically equivalent resource that competing firms can exploit. Substitutable resources can be defined as '*two valuable firm resources (or two bundles of firm resources) are strategically equivalent when they each can be exploited separately to achieve and implement the same strategies'* (Barney, 1991, p. 111). Competing firms might want to duplicate the competitive advantage of another firm by imitating their clear vision of the future. This resource might exist due the firm's charismatic and personality traits of the managers. Such traits can be difficult to imitate, but might be substituted by a formal planning system, and thus be strategically equivalent. The competitive advantage obtained from such a resource will therefore not be sustained despite being non-imitable, since other firms are able to substitute the resource.

The resource-based view focuses on the resource base controlled by the firm and competitive advantage is obtained by exploiting their bundle of resources. Resources are only the source of sustainable competitive advantage if they are valuable, rare, non-imitable AND non-substitutable. The main argument of the resource-based view is that sustainable competitive advantage cannot be purchased, but needs to stem from the already controlled resources within the firm. It may appear that the resource-based view undervalue the importance of managers and managerial skills. In a dynamic business environment, the VRIN-attributes of a resource are highly fragile. Barney (1991) argues that managers are highly important to his model in the sense that they are needed to understand and describe the economic potential of the firm's resource base. Their importance is emphasised in markets where the new opportunities and threats appear with high frequency. The theoretical approach I will review next, the dynamic capabilities theory, dives deeper into these managerial skills and emphasizes the key attributes of a firm when competing in a dynamic business environment.

2.5. The dynamic capabilities theory

The resource-based view of the firm is a theoretical framework for how firms can obtain and sustain competitive advantage (Barney, 1991; Eisenhardt & Martin, 2000; Penrose, 1959; Wernerfelt, 1984), but has performed less well in explaining competitive advantage in dynamic markets (Eisenhardt & Martin, 2000; Teece et al., 1997). The dynamic capabilities theory is an extension of the resource-based view but focuses on a more dynamic business environment (Eisenhardt & Martin, 2000).

2.5.1. New sources of competitive advantage

The dynamic capabilities theory was described as '*an emerging and potentially integrative approach to understand newer sources of competitive advantage'* (Teece et al., 1997, p. 516) in a rapidly increasing competitive marketplace. The competitive advantage lies not in the resources itself, but in the (1) managerial and organizational processes, (2) shaped by its asset/resource position, and the (3) paths available to the firm. By (1) organizational and managerial processes, it refers to how things are done in the firm, also known as the company routines. The (2) resource position, or resource configuration, refers to the technological assets of the firm. (3) Paths refers to the strategic actions that are available to the firm. The firm might also be path dependant, the strategic alternatives available at this time stems from strategic choices made earlier (Teece et al., 1997). Confusingly enough, Eisenhardt and Martin (2000) argues that the functionality of a dynamic capability can be imitated by competing firms and therefore their value for competitive advantage lies in fact in the resource configurations/competences that they create, and not in the dynamic capabilities itself.

The (1) organizational processes have three roles: integration/coordination, learning and reconfiguration. Firstly, firms need to coordinate their internal and external processes/routines in order to obtain a strategic advantage. Of the organizational processes, Teece et al. (1997) emphasize the importance of gathering and processing information, coordinating logistical activities and linking engineering design to customer experiences. Alliancing and technological collaboration will give the focal firm access to new set of resources. These processes often shows a high amount of reliance on each other, making them difficult to imitate and replicate for competing firms. This replication demands a systematic organizational change and it is difficult to identify the interorganizational linkages.

Teece et al. (1997, p. 520) refers to learning as '*a process by which repetition and experimentation enable tasks to be performed better and quicker'.* Learning does not only relate to the organizational skills, but also the individual skills. The value of the individual skills are on the other hand dependant on their deployment in an organizational setting. New organizational knowledge obtained by learning must be integrated and renew the current processes and routines. Learning can also happen at an interorganizational level, building on

the external organizational process alliancing. Collaboration and partnerships can help firms improve their current processes and identify dysfunctional processes.

The firm's ability to sense the need to reconfigure and transform their current internal and external processes, are one of the most important abilities in dynamic business environments. Firms need to gain knowledge about and adopt best practise by surveillance of the markets and the technologies. Teece et al. (1997) argues that firms should try to become so called 'high-flex' firms. High flex firms have decentralized decision-making that facilitate fast reconfiguration and transformation of the resources/competences in order to comply with the frequent changes in the market.

The firm's strategic situation is not only a result of the organizational processes and routines, but also of the (2) firm specific resources. *Technological resources* refers to the 'know-how' of organizational routines and processes. The endowment of such resources are, according to Teece et al. (1997), the key to short term differences among firms. Technological innovation is often in need of *complementary resources*. Such resources normally lies downstream in the supply chain and can enhance or destroy the value of other assets. The firm's *financial resources* reflect the firm's cash position and thus, determine their degree of leverage towards other players in the industry and can limit the firm's strategic alternatives. *Reputational resources* shape the responses from competitors, customers and suppliers. The value of a company's reputation has been recognised by several authors and has also been associated with first mover advantages (Barney, 1991; Wernerfelt, 1984). *Structural resources* refer to the intra- and interorganizational linkages, both formal and informal, and reflects how the company's competences co-evolve.

(3) *Paths dependencies* is the last dimension Teece et al. (1997) considers to be the source of competitive advantage. The strategic alternatives available to the firm is a function of the firm's current position and are shaped by the strategic choices made in the past. The effect of path dependencies is amplified in markets where there are 'increased returns to adoption'. That is, the more a product is adopted, the higher is the chance that new customer will adopt the product (Teece et al., 1997). However, the company with the best product does not necessarily 'win' in the market. Strategic actions in the past may have caused a 'lock-in' effect and switching cost for the consumer. Firms need to constantly sense opportunities and threats in the market since the strategic actions made today will shape the strategic alternatives tomorrow. High switching costs benefits firms in dynamic markets with rapid technological change. Competing firms must therefore not only create a superior product than

the focal firm, but the switching benefits must exceed the switching costs (Porter, 1980; Teece et al., 1997).

The profits accumulated by the firm's resources are short term (Eisenhardt & Martin, 2000) and thus, the competitive advantage is not sustained. Their ability to transform and reconfigure their assets base is the key to sustaining the competitive advantage (Teece, 2007; Teece et al., 1997). A shift in environment are much more serious to the firm, than the loss of key individuals. New individuals can be bought in the factor market, but dynamic capabilities must be built within the organization (Teece et al., 1997).

2.5.2. The influence of market dynamism on competitive advantage

As mentioned in the definition section of this thesis, dynamic markets can be characterized by unpredictable and frequent changes in the industry structure and in the industry rules of play. In a dynamic business environment, the success of the dynamic capabilities relies on the creation of new knowledge and not on the existing knowledge base. The existing knowledge base can even be a disadvantage if managers overvalue its importance and make them blind to new solutions. To rapidly create and obtain situation specific knowledge is a key capability in order to compete in dynamic markets. The manager's skills to cope with uncertainty is a factor that that has the potential to slow down or speed up strategic decision-making in such markets (Eisenhardt & Martin, 2000).

Market dynamism has several implications on the dynamic capabilities. The sustainability of the capabilities themselves depends on the market dynamism. According to Eisenhardt and Martin (2000, p. 1113), capabilities in dynamic markets are *'simple (not complicated), experiential (not analytical), and iterative (not linear) processes'.* They rely on fast-paced sensing, learning and integrations of new knowledge based on the rapid shifts in the business environment. By considering the VRIN-attributes of a resource (Barney, 1991), environmental changes can cause resources to become obsolete or they can be substituted and imitated by other firms. New emerging technologies can cause old processes to be slow or inefficient, or changes in customer preferences can cause the current product offerings to lose their value. The competitive advantage achieved by the firm are prone to other threats in dynamic markets. In static and moderately dynamic markets, external forces destroy the competitive advantage. In dynamic markets, the threats can also stem from inside the firm

through the potential collapse of the dynamic capabilities. The reason being that the complexity of these capabilities creates a causal ambiguity (Eisenhardt & Martin, 2000).

Eisenhardt and Martin (2000) argues that the source of sustaining a competitive advantage in markets with high dynamism lies in using the capabilities sooner and more fortuitously than what the competitors do. The firm will create advantageous resource configurations before the competitors, thereby benefit from first mover advantages that will be sustained if they are hard to imitate. These resource configurations are particularly valuable if they are synergistic activities built with alliancing companies. The sustained competitive advantage lies therefore in the resource configurations built by dynamic capabilities, and not in the capabilities themselves. By that logic, dynamic capabilities are not sufficient but a necessity to obtain competitive advantage. In dynamic markets, the value of certain resource configurations cannot be expected to endure long-term. Shifts in new technology, market players, customer preference etc. will make certain resource configurations obsolete. The key is therefore *not* to obtain a sustained competitive advantage based on the same resources, but to use their dynamic capabilities to continuously create new resource configurations that will result in a series of temporary advantages. The goal is to use the dynamic capabilities to move into new competitive positions. In order to continuously move into new competitive positions in dynamic markets, firms must scan the competitive landscape to sense, seize and manage opportunities and threats.

2.5.3. Sensing, seizing and managing opportunities and threats in a dynamic market

A decade after the first conceptualisation of the dynamic capabilities framework, Teece (2007) publishes an article explaining the so called microfoundations of the firm's dynamic capabilities. Teece (2007) categorizes the firm's dynamic capabilities into the core capabilities: (1) The firm's ability to sense opportunity and threats, (2) the firm's ability to seize opportunities, and (3) the firm's ability to manage threats/transforming. Teece (2007) refers to these capabilities as 'orchestration skills' or 'asset orchestration processes'. I will now review the most important microfoundations of each of the core dynamic capabilities.

(1) Sensing and shaping new opportunities consists of scanning, creation, learning and interpreting activities. Firms must invest in research and search, scan and explore different technologies in the market. This includes understanding latent demand and open up

technological opportunities by tapping into the research of others such as alliance partners. Teece (2007) argues that the microfoundations of the sensing capability lies in the firm's R&D processes to sense internal opportunities, but also in sensing external innovation opportunities from the suppliers. The firm must also tap into the developments in the scientific community to obtain advantages from new technologies. In order to conduct a successful innovation, the firm must understand the customers' need. Once the firm senses a new opportunity, it must be taken advantage from in the form of new products, services or processes.

Teece (2007) discusses different microfoundations for (2) seizing the sensed opportunities. Firstly, companies should delineate and synchronize their customer's need and business model. Important choices regarding the business model includes the integration of new technology, financial terms such as leasing or buying, bundle or unbundled sales strategies. Secondly, companies need to define the company boundaries. This includes the integration of upstream and downstream activities. The desire to vertically integrate activities are driven by the need to obtain scarce capabilities that are unevenly distributed in the industry. Thirdly, managers must avoid bias and delusion when conducting strategic decisions. Decision errors made in highly dynamic markets are amplified since there is less opportunities to recover. Overcoming decision-making bias is not a common skill amongst managers, and can be used to obtain competitive advantage in particularly dynamic markets. This demonstrates leadership and emphasizes the last microfoundation: building loyalty and commitment. Building loyalty and commitment among the employees will increase the chance of implementing successful changes in the firm.

The capability to sense and seize opportunities can lead to competitive advantage, but the firm's ability to (3) manage threats and transform the resource configuration is the key to sustaining that advantage. Teece (2007) argues that the firm should become more decentralized in order to increase responsiveness and flexibility to environmental threats. However, this may compromise the firm's ability to properly integrate firm activities. Firms must also manage and specialize their resources. A new resource can be built by combining two separate resources, which again can be difficult to imitate for competitors. Managers' ability to identify, develop and utilize the combination of two resources, is an important dynamic capability.

2.5.4. Empirical review of the Dynamic Capabilities theory

In this chapter, I will review some of the empirical articles focusing on the Dynamic Capabilities framework. In this master thesis study, I have focused on how firms obtain and sustain competitive advantage in dynamic business environments. Therefore, I have only selected articles that considers environmental dynamism in their analysis. The items used in these studies will also aid me in my own data collection process. Since the logic of the resource-based view of the firm is corrupted in dynamic markets (Eisenhardt & Martin, 2000), I will only select empirical articles that considers the dynamic capabilities of a firm *and* the resources. The main hypothesises and findings of each study will be presented.

The moderating effect of market dynamism on the capability performance

Drnevich and Kriauciunas (2011, p. 255) examined *'under what conditions do ordinary and dynamic capabilities contribute to firm performance'* in their research article. They developed three sets of hypothesises: (1) how ordinary and dynamic capabilities directly affects firm performance, (2) how environmental dynamism moderate the capabilities effect on firm performance, and (3) whether capability heterogeneity is necessary for the capabilities to contribute to firm performance. Drnevich and Kriauciunas (2011) measures performance on both the *process level* and the *firm level.* The process level focuses on the capability output of productivity, business process performance and quality of their offerings. The firm level performance was measured by their profits as a percentage of sales.

In their first set of hypotheses, Drnevich and Kriauciunas (2011) hypothesised that the deployment of ordinary and dynamic capabilities have a positive effect on firm performance. They found support for the effect of ordinary capabilities on both levels, but only found support for the effect of dynamic capabilities on the process level. This emphasises the importance of the ordinary capabilities and strengthen the argument of Eisenhardt and Martin (2000) that the source of competitive advantage lies in the resource configuration.

The second sets of hypotheses explores the moderating effect of market dynamism. They hypothesised that market dynamism would have a negative moderating effect on ordinary capabilities, and a positive moderating effect on dynamic capabilities. There was no support in this moderating effect on the on the process-level, but they found support for both hypotheses at the firm level (profitability). These findings support the work of several authors

that the dynamic capabilities are crucial in dynamic markets (Eisenhardt & Martin, 2000; Helfat et al., 2009; Teece, 2007; Teece et al., 1997).

Drnevich and Kriauciunas (2011) theorized in their third set of hypotheses that the heterogeneity of capabilities would have a negative moderating effect on the performance of ordinary capabilities, and a positive moderating effect on the performance of dynamic capabilities. They found support for the effect on ordinary capabilities, but in the opposite direction of what they hypothesised. This indicates that the "best practice" of doing things are not widely diffused in the industry. Some firms can then draw benefits from protecting their ordinary capabilities. This supports the argument in the resource-based view that resources are in fact heterogeneous amongst firms and can be the source of competitive advantage (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). They observed support for the moderating effect on dynamic capability performance, which suggests that the dynamic capabilities are complex in nature and firm specific.

Innovation, information and relational capability

G. P. Wang et al. (2015) examines how the three dynamic capabilities innovation, information, and relational capability enables external collaboration in dynamic markets and how this affects firm performance. The innovation capabilities refers to the firm's ability to innovate new products and processes. The information capability refers to the firm's ability to manage information. This includes obtaining, analysing, coordinate and communicate market information. This ability draws similarities to the *Sensing* capability of Teece (2007). Relational capability refers to the firm's ability to manage external relationships and alliances. Distinguishing their current business relationships between transactional and collaborative relationships are key abilities, and enables the firm to treat the different relationships accordingly. It also includes the process of obtaining, developing and identifying the best relationships. The moderating effect of market dynamism is theorized to increase the effect of the three capabilities on external collaboration.

G. P. Wang et al. (2015) finds support for the three main effects of the capabilities on external collaboration. They also find support for the positive effect external collaboration has on overall firm performance. The results from their study shows that market dynamism has a strong moderating effect on the relationship between the innovation capability and external collaboration effectiveness, and thus increase firm performance. This suggests that

collaboration success in dynamic markets depends on the firm ability to innovate. A similar moderating effect is observed with the information capability. However, the study shows that the information capability have moderately to no effect in stable market, but a high effect in dynamic markets. The importance of information management found here strengthens the arguments of Teece (2007) that obtaining information in dynamic markets are crucial. However, it's surprising that no effect of information management on external collaboration effectiveness was found. G. P. Wang et al. (2015) failed to observe a moderating effect on the relationship between the relational capability and external collaboration effectiveness. This, does not however, suggest that there is no effect at all, or that the relation capability is not important, but that it was not particular important in dynamic markets. This finding contradicts the arguments of the dynamic capabilities theory that the ability of alliancing and managing relationship is one of the key abilities to obtain a competitive advantage in dynamic business environments (Eisenhardt & Martin, 2000; Teece et al., 1997).

The capabilities effect on financial performance and competitive advantage

Fang and Zou (2009) argues that many firms engage in international joint ventures or alliances in order to obtain dynamic capabilities that are otherwise unavailable. They also argue that the effects of dynamic capabilities lack an empirical foundation. Fang and Zou (2009) aimed to fill this gap by researching how dynamic capabilities affect the firm's financial performance and competitive advantage, with the focus on *marketing dynamic capabilities* in international joint ventures. In their study, Fang and Zou (2009, p. 744) define marketing dynamic capabilities as *'the responsiveness and efficiency of cross- functional business processes for creating and delivering customer value in response to market change'*. They measured the dependant variable competitive advantage in how well managers agreed to that their firm have strategic advantages over their competitors. Financial performance was measured by the firm's Return on Assets (profits/ total assets) and sales/total assets. In accordance with the fundamental argument of the theory that the dynamic capability is the ability to respond to external markets changes (Eisenhardt & Martin, 2000; Helfat et al., 2009; Teece, 2007; Teece et al., 1997), the authors also tested the moderating effect of market dynamism.

Fang and Zou (2009) found support for their hypotheses that the deployment of marketing dynamic capabilities positively influences the firm's financial performance and competitive

advantage. Market dynamism positively moderated the link between marketing dynamic capability and financial performance. However, market dynamism only marginally moderated the link between market dynamic capabilities and competitive advantage ($p < 0.10$). The results from this research supports the fundamental argument of the dynamic capabilities theory discussed earlier. The use of dynamic capabilities (in this case, marketing dynamic capabilities) will give the firm positive effects on firm performance. These effects will be amplified in markets characterized with a high degree of dynamism. According to this study, leveraging the dynamic capabilities can generate a competitive advantage in dynamic business environments.

3.0. Discussion and conceptual model

In the theoretical review I have presented the most relevant literature, both theoretical and empirical, in the field of competitive advantage in dynamic markets. The resource-based view offers a good explanation of the source of competitive advantage and how this advantage is sustained. Even though this framework works best in static and less dynamic markets, it creates a good foundation for the dynamic capabilities theory. The most important similarities between these two theories is that they both acknowledge the importance of resources. As mentioned before, the dynamic capabilities theory suggests that the source of competitive advantage lies not in the capabilities, but in the resources which the capabilities shape, modify or creates. However, in dynamic markets, it cannot be expected that the current resource configuration will generate a long-term advantage. The competitive forces, changes in customer preference and technological advancement will, with time, corrupt the VRIN-attributes of the resource. New or current competitors will find ways to imitate or substitute the functionality of the focal firm's resources due to the dynamic business environment. Changes in customer preference or the introduction of new technologies has the potential to make resources less valuable, and thus not give the focal firm any benefits.

Therefor it is not likely that the VRIN-attributes of a resource will be sustained in a dynamic market. The dynamic capabilities theory therefore argues that the firm must always reposition themselves to fit the market. A sustained competitive advantage is obtained through a series of temporary advantages. This demands a high degree of flexibility from the firm and the ability to adapt rapidly to shifts in the industry landscape. The firms must use their dynamic capabilities to continuously create or modify their resources to secure that they always feature the VRIN-attributes. In order to do this, firms must incessantly scan the market to sense the opportunities that appear as a result of the market dynamism. If the firm has a good sensing capability the opportunities that arise can be captured first by the focal firm and thus it can benefit from first mover advantages. For example, new technology can be patented or a good relationship can be established with new customers or suppliers. The firm should then quickly change their resource configuration in order to seize the opportunity. Competing firms have the possibility to engage in aggressive actions in order to also draw benefits from these or other opportunities. Firms must therefore not only scan for opportunities, but also for threats and then engage in defensive actions. This results in a never-ending cycle of scanning for changes in the business environment, and continuously strive to change their resource configuration to fit the ever changing "rules of play" in the industry.

Based on the reviewed theories of competitive advantage and the discussion above, I have developed a conceptual model (Figure 1) that tries to answer the research question proposed in the introduction section of this master thesis.

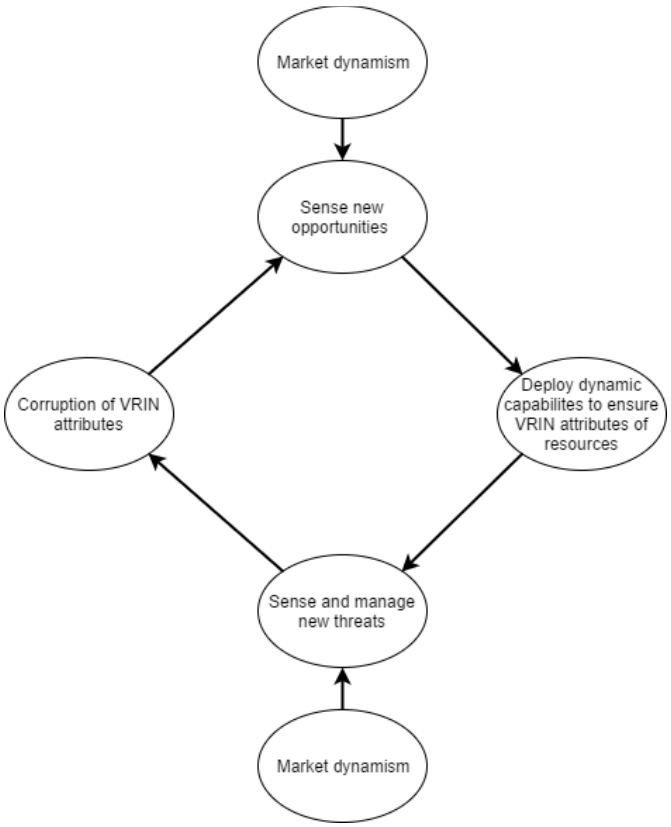


Figure 1: Conceptual model

Figure 1 shows the competitive advantage cycle in dynamic markets. Note that this cycle describes how competitive advantage is obtained, and the competitive advantage is sustained by repeating this process. Market dynamism opens up new opportunities for the firm which needs to be sensed and identified. Then the firm must use their dynamic capabilities to obtain new or modify their current resources to generate VRIN-attributes that fits the new opportunities. With time, the market dynamism will present new threats for the firm which needs to be sensed and managed through defensive actions. The quality of managing these threats will influence the time before the VRIN-attributes are corrupted. When the VRIN-attributes eventually are corrupted due to market dynamism, firms must sense new evolving opportunities and then repeat the process. This model does not suggest that firms do these steps one by one, but rather continuously and simultaneously to create multiple sequential competitive advantages.

4.0. Methodology

In this chapter, I will describe and explain the selected research method applied in this study. I will start by exploring and acknowledge my philosophical stance in this study. Then, I will account for my research selections regarding research approach, research design, method for data collection, selection of cases and informants. This chapter will conclude with an assessment of the validity and reliability of this study.

4.1. Philosophical stance

Researchers tend to have different opinions when it comes to their views on realities, knowledge and how knowledge is best obtained. These differences stem from the researcher's different philosophical positions, and how to you apply their philosophy during the research process. The question of 'how to research' is often a philosophical one and it is therefore important for the researcher to address this question. Acknowledging your own philosophical views can help the researcher carry out their research. It's also a method to obtain transparency in their work since the choices made during the research process can be explained by their acknowledged philosophical standpoint (Savin-Baden & Major, 2013).

Ontology, a branch within philosophy called metaphysics, is an area that addresses the views on reality (Savin-Baden & Major, 2013). It tries to answer three closely related but separate questions: What exists, what properties does it have and what laws and forces is it controlled by (Davidsen, 2004). The two endpoints on the ontological continuum are realism, an objective perspective, and idealism, a subjective perspective. Realism suggests that the reality is independent of the individual's interpretation reality. The human experience and perception is separate from the physical universe (Mackay, 1997). Realists therefore acknowledge both a 'social reality' and a 'physical reality' (Savin-Baden & Major, 2013). Idealism on the other hand, suggests that the reality is subjective and constructed in the peoples' minds.

The researchers view on knowledge and how knowledge may be known, is a part of the philosophical branch epistemology (Honderich, 1995). This branch is concerned with the origin, nature, limits, method and justification of knowledge (Hofer & Pintrich, 2004).

In order to locate themselves and their ontological and epistemological view, researchers often adopt a philosophical paradigm to guide their research. A paradigm can be defined as a '*basic belief systems based on ontological, epistemological and methodological assumptions'*

(Guba & Lincoln, 1994, p. 107). It is simply a worldview or system of philosophical standpoints that helps the researcher conduct their research, and to help the reader understand the choices made during the research process. According to Savin-Baden and Major (2013), the six most common paradigms that researchers adopt is critical social theory, pragmatism, phenomenology, post-modernism and post-structuralism, constructionism and constructivism. All of these paradigms has different ontological and epistemological views and perspectives on how research should be conducted.

Of the six belief systems mentioned, I personally identify most with the phenomenology paradigm. This philosophical paradigm places itself in the centre of the ontological continuum. Phenomenologists do not believe that reality simply exists and people may know about it (realism), nor do they believe that reality is simply constructed in the mind (idealism). Phenomenologists believe that reality is a product of the mind. Reality is shaped through the interpretation of individual experiences (Schwandt, 2000). In other words, reality is what individuals experience and how they interpret the objective world. The epistemological view of the phenomenologists is that knowledge derives from the interpretation of the individual experiences. The methods of gaining knowledge should thereby include a close examination of the said experiences (Savin-Baden & Major, 2013). However, phenomenologists acknowledge that the researcher and the informant can have different biases in regards to the individual's history and traditions which shape how the individual understand the world (Gallagher, 1992). The researcher must therefore try to capture the individual's experience of a situation or phenomenon, but simultaneously be aware of the informant's potential biases.

I have now acknowledged my philosophical standpoint and this will contribute in explaining the choices made during the research process, and of course to obtain some transparency. The philosophical belief system I identify with is phenomenology, and I share their ontological and epistemological views. I believe that reality is cannot be said to exist strictly in two separate forms, the physical forms and in the human mind. Reality is a complex thing and the reality that resides in the human mind is influenced by the reality in the physical world. I also believe that knowledge can only be gained by interpreting their own experience, but maybe more importantly, the experiences of others. That is how for example students obtain knowledge. They are reading textbooks and articles, which again is a product of the interpreted experience of others. However, it is important to be aware of potential biases that may exists. People can overvalue their own experiences and interpret them differently than

the experiences of others. People can also interpret the same experience differently and this master thesis is no exception.

4.2. Research method

One of the first choices researchers have to make is whether to use a qualitative or quantitative research approach. Both have their perks and drawbacks, and is more fitting depending on the nature of the research and the research question. Using a quantitative research approach, such as a survey, is appropriate if the research question contains words such as 'what' and 'who'. A qualitative approach is more appropriate if the research question contains words such as 'how' and 'why' (Meyer, 2001; Yin, 2009).

If we look at my research question: "*What are the sources of competitive advantage in a business environment characterized by high dynamism, and how is the competitive advantage sustained in such markets?"* We can see that my research question contains both the word 'what' and 'how', and therefore is appropriate in both a qualitative and quantitative research approach. Quantitative research methods are appropriate when there is an established theoretical foundation and the researcher wants to test the theories. Qualitative research methods on the other hand, is appropriate when the area of study is new and there is not much prior theory. The area of competitive advantage is highly theorized with the competitive forces approach (Porter, 1980), the resource-based view (Barney, 1991; Wernerfelt, 1984), the dynamic capabilities theory (Eisenhardt & Martin, 2000; Teece, 2007; Teece et al., 1997) and the relational view of competitive advantage (Dyer & Singh, 1998).

In my theoretical review, I established the fact that the dynamic capabilities approach would be the most appropriate framework to use in my research. Recall that dynamic capabilities can be defined as '*the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments' (Teece et al., 1997, p. 516).* The question then arises on how to measure this in a quantitative matter while simultaneously controlling for potential biases. Practitioners may be overvaluing their own capabilities and competences, and that is difficult to control for in the research without a qualitative approach. Competitive advantage in itself is a very complex phenomenon and the source of competitive advantage is not yet clear in the theory, hence the existence of numerous competing theories. In order to control for all these different theories and biases, I believe that it is necessary to be

flexible in the data collecting process. Choosing a qualitative research method will grant me this flexibility. I also want to investigate the core capabilities (Teece, 2007) of the dynamic capabilities which constitutes the manager's ability to sense opportunities and threats in the market. In alignment with my phenomenological belief system, I value the manager's experience in regards to how they respond and even recognise such opportunities and threats. I also suspect that some of the terms used in the theory might be misunderstood by practitioners. 'Resources' for example is prone to be only understood as a financial resources or human resources, and practitioners might not consider it to also include brand liking, quality and so on. Such misunderstandings are difficult to identify in a quantitative research approach and have the potential to reduce the internal validity in for example a survey. Due to the arguments presented above, I have chosen a qualitative approach to my research project.

Yin (2013) describes the processes in a qualitative research project as shown in figure 2. I will in this chapter go through the steps plan, design, prepare, collect and analyse. The last step is share which is done with this written report of the master thesis. It is important to notice that the steps in a qualitative research project is not a linear but rather an iterative and repetitive process, indicated by the directions of the arrows.

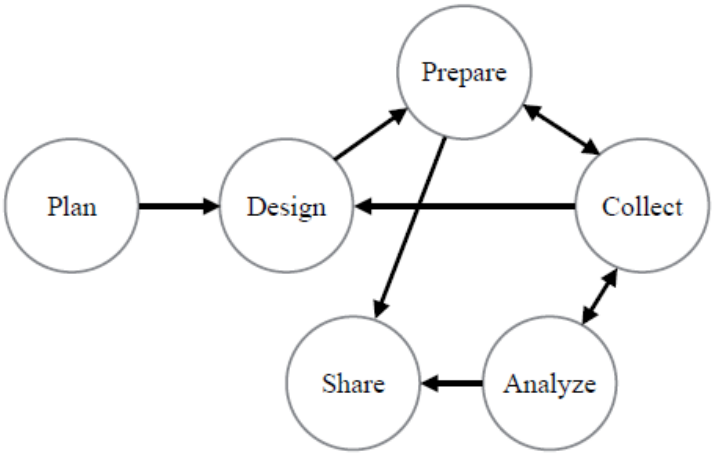


Figure 2: Processes in qualitative research (Yin, 2013)

4.3. Research design

The most eminent qualitative research method is the case study method. The research design should always reflect the research question (Thagaard, 2003) and the case study method

becomes more relevant the more the research question requires an in-depth description of a phenomenon (Yin, 2009). As argued earlier, the phenomenon competitive advantage in dynamic markets is highly complex and is subject to be explained by multiple different theories. Therefore, I believe that a case study is the most appropriate research strategy.

4.3.1. Case study

Case studies is a research strategy that consists of detailed investigations of entire organizations, specific groups within the organization, in order to provide the possibility for an analysis of both the context and the processes involved in the phenomenon the researcher studies (Meyer, 2001). Yin (2009) divides cases into four different types of case designs. These case designs are illustrated in a two-by-two matrix in figure 3.

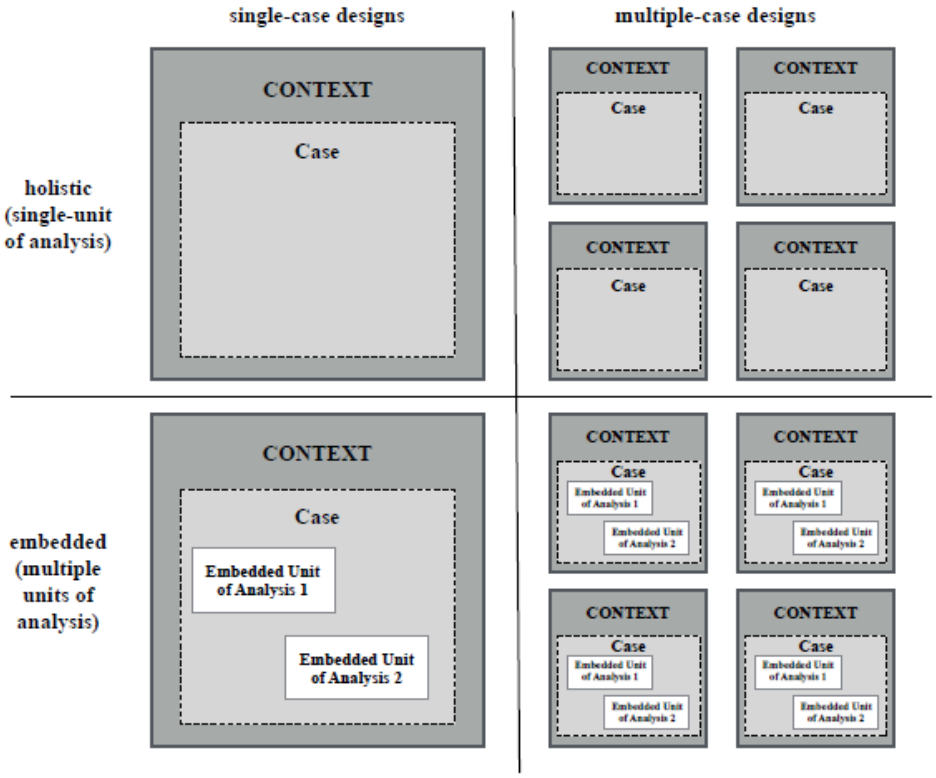


Figure 3: Case designs (Yin, 2009)

Firstly, Yin (2009) differentiates between a single-case design and a multiple-case design. Within these two variations, you can differentiate by whether they have single (holistic) or multiple (embedded) units of analysis.

For this research project, I chose a multiple-case design with a holistic unit of analysis. A multiple-case design has several advantages compared to single-case design. Multiple-case designs are considered more compelling and therefore more robust. Potential evidence can be crosschecked with other cases in order to create some form of external validity and generalizability (Meyer, 2001). Multiple-case design are therefore often described as a comparative-case design (Yin, 2009). Single-case designs are also more appropriate if the researcher has a unique case which he/she wants to investigate. Even though there is a general consensus that a multiple-case design is more robust and trustworthy (Eisenhardt, 1989; Meyer, 2001; Yin, 2009), some researchers argue that deploying a multiple-case design is against the argument of using a case study in the first place (Dubois & Gadde, 2002; Easton, 1995). The main argument for conducting a case study is the possibility to go more in-depth in a phenomenon. By choosing a multiple-case study, the researcher trades of some of this depth in order to gain some breadth. Dubois and Gadde (2002, p. 558) argues that *'[t]he advantages gained by increasing the number of cases are countered by certain disadvantages. This trade-off might result in negative effects'.* Even though I do not agree with these arguments, I do find them somewhat logical to a certain extent. If generalizability was the aim for the research, a quantitative research method would be more appropriate. Despite this, I agree with Eisenhardt, Meyer and Yin, and value the trustworthiness and robustness a multiple-case design offer.

The next step in designing the case study is to decide whether to have a holistic or embedded unit of analysis. In an embedded case design, the researcher investigates different units within the same case. In a business sense, the researcher can investigate multiple branches within the same company. An example of an embedded multiple-case design I found in Martin and Eisenhardt (2010) where they investigated different branches of multiple software companies. A holistic case on the other hand only has one unit of analysis within each case. Given my research question and desire to investigate competitive advantage on a company level, there would be no point in adopting an embedded design. The time dimension and the extent of the master thesis would make an embedded design difficult to conduct. I therefore believe that a holistic multiple-case design is clearly the most appropriate research design.

4.4. Selection of cases

In quantitative research it is logical to use statistical sampling where the goal is that the sample are representative for the entire population. In regards to sampling in qualitative research, such as case studies, it is more appropriate to conduct theoretical sampling. The aim here is to pick cases which either replicate or extend the current theory (Meyer, 2001). Theoretical sampling involves selecting samples purposely unlike statistical sampling which involves selecting samples randomly. In other words, researches in qualitative studies should seek information richness and should select cases that provides this information (Miller & Crabtree, 1992).

4.4.1. Case requirements

In compliance with the logic of theoretical sampling I want to investigate companies that performs systematically better than their competitors, and companies that performs systematically worse. Due to the time limitation of my master thesis I chose to include four companies in my study: two companies that has a competitive disadvantage and two companies that has a competitive advantage. The nature of their competitive situation was determined through the respective companies' public financial statement. These financial statements were collected digitally from 'Brønnøysundregisterene' and analysed. The companies' competitors was also analysed in order to confirm competitive advantage and disadvantage. In some instances, the main competitors were companies registered outside of Norway which made it more difficult to analyse their financial situation. When this occurred, the companies were contacted directly either by e-mail or telephone to verify their competitive situation. The competitive situation was also confirmed during the data collection process. The competitive advantage/disadvantage was measured in terms of profitability and market share. Even though competitive advantage is not explicitly defined in the theory, this way of evaluating the competitive nature is similar to the empirical article of Spanos and Lioukas (2001) and the theoretical work of Hill et al. (2014). I also set a requirement that the companies needed to be more than five years old in order to ensure that the companies are well established in the market and do not possess a short-term benefit from for example a disruptive innovation.

The last requirement for the cases involved that the companies has to compete in a dynamic market. It turned out to be quite difficult to identify companies that fulfilled this requirement, which caused problems for me when collecting cases. When evaluating the dynamism in the competitive landscape, I used the characteristics presented in the theory. As I wrote in the definitions section of this paper, market dynamism can be viewed as a composition of change in the production/service technology , changes in competitive intensity (Baker & Sinkula, 2005; Teece, 2007; Wernerfelt, 1984), unpredictable changes in customer needs (Teece, 2007; G. P. Wang et al., 2015), general rate of change in the competitive environment (Teece, 2007; Teece et al., 1997) and unclear market boundaries (Eisenhardt & Martin, 2000). Multiple industries were evaluated through discussions with fellow students, my supervisors and practitioners. Some specific industries are mentioned in the literature such as the biotech industry (Eisenhardt & Martin, 2000) and the software industry (Martin & Eisenhardt, 2010), and I strived to include these industries in my research.

During the process of collecting cases I found it quite difficult to find companies that met all of the requirements developed. Firstly, the market dynamism requirement turned out to be a requirement that would not be met by several potential companies. Many companies were suggested to me, however few of the companies could be characterized as competing in a dynamic market. Secondly, the companies that met all of the requirements did not necessarily have the time to participate in this study.

4.4.2. Collection of cases

After potential industries had been evaluated, financial statements were reviewed to determine the competitive situation of different companies. Multiple companies were contacted via either email or telephone. When contacted vie email, an information letter was attached which described the research projects. To lower the threshold for participation, I promised anonymity for both the company and the informants in the written report. However, I informed that the industry in which the respective companies competed would not be anonymised. This decision was made to maintain the transparency and reliability of this research project. All companies were also informed that the research project had been registered with the “Norwegian centre for research data” (NSD). See appendix A. Company representatives that were contacted via telephone did not get the information letter initially.

However, all the informants were offered this letter but everyone preferred an oral description of the project.

A total of six business clusters and nine separate companies were contacted before I identified four companies which met all the pre-defined requirements. I informed the participants that their company name would be replaced with their respective industry in the final report which everyone agreed to. The first company that appeared to hold a competitive disadvantage is competing in the biotechnology industry and will be referred to as *Biotech.* The second company that appeared to hold a competitive disadvantage competes in the high technology engineering industry and will hereby be referred to as *Engineering.* The first company that appeared to hold a competitive advantage competes in the media industry. This company will be referred to as *Mediahouse.* The second company that appeared to hold a competitive advantage competes in the IT-consulting industry. The company will be referred to as *Software.* I chose to include two informants from each case resulting in a total number of eight informants. The informants will be anonymised and named after the respective company they represent. Figure 4 summarises the cases and the informants. All the companies will be presented later in chapter 5 together with their competitive nature and market dynamism.

Company 1	**Company 2**
Industry: Biotechnology Name of company: *Biotech* Competitive situation: Disadvantage Number of informants: 2 Name of informants: • *Biotech1* • *Biotech2*	Industry: High technology engineering Name of company: *Engineering* Competitive situation: Disadvantage Number of informants: 2 Name of informants: • *Engineering1* • *Engineering2*
Company 3	**Company 4**
Industry: Media Name of company: *Mediahouse* Competitive situation: Advantage Number of informants: 2 Name of informants: • *Mediahouse1* • *Mediahouse2*	Industry: IT-consulting Name of company: *Software* Competitive situation: Advantage Number of informants: 2 Name of informants: • *Software1* • *Software2*

Figure 4: Cases and informants

4.5. Data collection

The research question should guide the choice of which data collection method to deploy together with the chosen research design (Meyer, 2001). According to Yin (2009) the most commonly used data collection methods are documentation, archival records, interviews, direct observation, participant-observation and physical artefacts. Of these methods, interviews are the mainstay of qualitative research and are usually the primary method for collecting data (Savin-Baden & Major, 2013; Yin, 2009). In my research, I found it the most fitting to use interview as my primary data collection method. As mentioned previously, I also used some archive records in the sampling process. I will explain in the following section why I chose this particular method and will give a description of the interview process.

4.5.1. Interview

Interviews in a research setting are a guided conversation and is a good method for obtaining much information is short period. It is a good method for exploring participant's opinions and interpretations on contemporary events (Savin-Baden & Major, 2013). This aligns with my philosophical paradigm and would give me flexibility in the data collection process. Even though the entire interview process is quite time consuming, it is necessary in order to develop insight in what creates competitive advantage in dynamic markets. The flexibility that the interview method gives me will allow me to investigate the multiple theories describing this phenomenon. I could also have included observation as a secondary data collection method in my research project. However, given my research question it is important to understand the internal business processes and the managerial skills. For the observation method to have any value it would have to be highly extensive and would not be possible given the time constraints. Interview is therefore the most appropriate data collection method and I believe I could obtain the same data as I would with the observation collection method. Interviews however does leave some question about biases in the data collection process. Especially since my research question concerns why some companies perform better than others. In order control for this bias, I have chosen to include two informants from each case, resulting in a total number of eight informants in this research project. This will also contribute to the internal validity in this project, which will be discussed later.

4.5.2. Sampling informants

When sampling informants, the main requirement is that the individual need to have knowledge about the phenomenon under study. When sampling cases I came in contact with members of the top management in all the cases. They served as gatekeepers and provided me with suggestions of potential informants. The informants had to fulfil the following requirements which I have developed beforehand:

- The informant needs to have knowledge about the company's market.
- The informant needs to have knowledge about the industry and competitors.
- The informant needs to be a part of the top management in the company.
- The informant needs to be a decision maker in the company.
- The informant needs to have knowledge about the company's strategy.

It was important that the informants met all these requirements in order to ensure that they could contribute to this study. I did not experience any problems regarding the informants accepting to be a part of this study. The primary problem I had was to get acceptance from the company as a whole, but as soon as the companies agreed to participate, so did all of the informants I approached. All of the informants received a description about the project either orally or in written from. They also agreed to that the interviews would be recorded and were informed that the audio files would be deleted (in compliance with the guidelines from the NSD) when the research project was finished.

4.5.3. Interview guide

To prepare for the interviews, an interview guide was made to ensure that I captured all relevant data. The interview guide became a template for the conversations and the idea was that the interview guide would make the interviews as similar as possible. Different questions and themes in the interview guide stems from the relevant theory reviewed in chapter 2. Right before the interview guide was constructed, the theories of competitive advantage were re-reviewed to ensure that I would include all theoretical aspects in my interview guide.

For this research project I chose to make use of highly structured interviews. In a structured interview, the researcher follows a pre-set script and asks the informants the same open- or

close-ended questions. Even though semi-structured interviews are the most common type of interviews used in qualitative research (Becker, Bryman, & Ferguson, 2012), I believed that a more structured interview guide was more suited in this situation. This form of interview guide is desirable when the researcher does not want to influence the informant with his/her own opinion. I have developed extensive theoretical knowledge about the phenomenon competitive advantage and the use of a structured interview will minimize the potential influence I as a researcher might have on the informant. A semi-structured or unstructured interview is harder to conduct and requires some level of experience and interviewing skills by the researcher. Due to my lack of such experience, it would be inappropriate to deploy these interview types. The use of a structured interview type is also preferable when it is important to capture the same type of information from all the informants. I wanted to compare the information between the different cases, hence my choice of a holistic multiple-case design, and it is therefore important to capture the same type of information from every informant. The use of a structured interview guide also makes it easier for others to replicate the study and increases the study's transparency and reliability (Savin-Baden & Major, 2013). According to Meyer (2001), it is important to establish trust between the interviewer and the interviewee. This was addressed by the promise of anonymity. In order to get the informant relaxed and comfortable, I asked some questions about their proudest professional accomplishments at the beginning of the interview. After having conducted all the interviews, I believe that this was a good way of 'getting the ball rolling' and worked perfectly as warm up questions.

All interviews were performed in Norwegian. I believe that it was important to conduct the interviews in the informant's first language to prevent any language barriers. Therefore, the interview guide was constructed in Norwegian but an English version can be found in appendix B.

The interview guide was pilot tested on one academic and one practitioner in order to identify any flaws or uncertainties. Some questions were re-structured and some questions were added. No questions were removed. I also learned from the practitioner that the term 'resources' offered some confusion which supported my suspicion described in section 4.2. During the interviews with the informants, I spent some time on defining this term and made sure that the informants had the right understanding of what I meant with 'resources'.

4.5.4. The interview process

As mentioned in section 4.4.2, most of the informants were contacted through either email or telephone. In two cases the first informant arranged the meeting with a second informant and functioned as a gatekeeper. All interviews were performed at the company site in closed rooms in order for us to not be disturbed. I prepared for each interview by re-checking the companies' financial statement and competitors. I also reviewed each company's website in order to gain some knowledge about the respective industries. All interviews were conducted in a two-and-a-half-week period. I believe that this helped in collecting the same information from each informant, and to make the interviews more eligible for comparison.

The interview guide was used in each interview, however I allowed myself to ask some extra question if I felt something was unclear or that the question was misunderstood. The interviews were recorded in order for me to transcribe them afterwards. None of the informants opposed this, which might be evidence of trust to a certain degree. One of the informants had only 40 minutes available for the interview and the early part of the interview was therefore somewhat rushed in order to make sure we covered everything. As a result, this interview lasted only 37 minutes. However, I do not feel that this time constraint limited the data in any way and the informant was allowed to answer thoroughly on the more important part of the interview. The other interviews averaged to 1 hour and 1 minute. Field notes were written to capture secondary information such as body language, facial expressions etc. I also used field notes to write down my initial thoughts and links to the theory. These thoughts were also timestamped in order to help me with my analysis later.

After each interview was finished and the recorder was turned off, it was natural with a short conversation with the informant. The information from these conversations was written down immediately afterwards, however most of them had little to no value and the informants often repeated points that were previously stated.

4.6. Data analysis process

In this section, I will describe the data analysis process and argue for the choices I made during the research project. The data analysis process is a continuous process that takes place throughout the entire research project. Marshall and Rossman (1989, p. 112) describes the

data analysis process as *'the process of bridging order, structure, and meaning to the mass of collected data (. . .) does not proceed in a linear fashion (. . .) is a search for general statements about relationship among categories of data'.* The analysis process includes breaking down and reducing data into meaningful parts with the intention of answering the research question (Savin-Baden & Major, 2013). The first step in this process is to transcribe the data in order to transfer the data from an audio form to a textual form.

4.6.1. Transcribing

I transcribed every interview in full. This was necessary in order to code the data later. The transcribing process was time consuming given that I had almost eight hours of audio. However, the transcribing process is a part of the analysis process (King & Horrocks, 2010) and memos were created in order to capture my thoughts when I transcribed the interviews.

When transcribing data the researcher must decide whether to deploy partial or full transcription. A full transcription includes every second of the interview word for word, including every pause and potential hesitation from the informant. While it might seem obvious that the use of full transcription is preferable, the researcher must consider how time consuming this is. A full verbatim transcription is therefore a major investment and needs to be carefully thought through (King & Horrocks, 2010). I therefore chose to deploy a partial transcription method. Simply due to the fact that a full verbatim transcription would be too time consuming for a single researcher. I transcribed word for word but excluded any 'in-between words' that did not, in my opinion, have any value to my research. I did not include pauses or voice intonation.

4.6.2. Coding

The next step in analysing qualitative data is coding. When the researcher is coding, he or she is assigning labels to the data which can either be descriptive labels, narrative label or more abstract labels. Coding is a way of reducing data and to organise it into concepts and themes. When the research project has an exploratory nature, it is useful to start with open coding. Open coding involves locating and establishing basic concepts and ideas, to gain an overall understanding of the phenomenon under study. This coding technique is often appropriate if

there is little theory on the phenomenon and the research project has an inductive nature (Priest, Roberts, & Woods, 2002).

Given that my research project has an extensive theory foundation, open coding will not be necessary. Yin (2009) describes four general analysing strategies and emphasize that the most preferred way of analysing case studies is when the analysis is relying on theoretical propositions. As discussed in my theoretical review, competitive advantage is extensively theorized with each theory providing multiple propositions. It is therefore more appropriate to follow the concepts and themes already established in the theory. The theory is guiding the case study and is therefore more of a deductive research approach rather than inductive. My goal of the research was not to establish new concepts and themes, but to establish the linkages between the existing concepts and themes.

Due to the established themes and concepts, I deployed axial coding rather than open coding. Axial coding can be defined as: *'[T]he way in which connections are made in new ways between categories and sub categories'* (Priest et al., 2002, p. 34). Axial coding is very helpful to identify specific features, for example the conditions for a specific phenomenon. The phenomenon is also analysed in its own context and conditions. Such a systematic way of analysing data is crucial in order to add precision in one's analysis (Strauss & Corbin, 1998). The coding list can be found in appendix C.

In compliance with Eisenhardt (1989) and Meyer (2001), I first analysed the different cases individually. I did this in order to consider the contextual factor within each case. After an extensive analysis of each separate case, I started to compare the cases and look for cross-case patterns.

4.7. Validity and reliability

In any research project, there is always a question about the quality of the research and is often measured in terms of validity and reliability. '*Without rigor, research is worthless, becomes fiction, and loses its utility. Hence, a great deal of attention is applied to reliability and validity in all research methods'* (Morse, Barrett, Mayan, Olson, & Spiers, 2002, p. 14). However, these terms are originally used to measure the quality of quantitative research and has to some extent been adopted by qualitative researchers (Savin-Baden & Major, 2013). There is a hot debate on whether these criteria are appropriate for qualitative research. The

literature can be divided into three different positions on this matter: Those who believe that qualitative research should be judged by the same criteria as quantitative research, those who believe that qualitative research needs a different set of criteria, and those who find it inappropriate to use any predetermined criteria to judge qualitative research (Rolfe, 2006). Due to these differences in opinion, there is no unified consensus on how the quality of qualitative research should be evaluated. This leads to authors developing several different criteria and approaches. For an extensive list, see Savin-Baden and Major (2013, p. 472).

I believe that it is not important which terminology you use in order to evaluate a qualitative research project. As long as the criteria used ensures rigor and transparency in the project. In order to not create any confusion in this jungle of different approaches, I will use the criteria developed by Johnson (1997). He presented five different types of validity: descriptive validity, interpretive validity, theoretical validity, internal validity and external validity. It's important to notice that Johnson (1997) acknowledge that internal and external validity are particularly typical for quantitative research, but he extends these terms to fit with qualitative research. I will now go through each of these five types of validity.

Descriptive validity

This type of validity refers to the accuracy of the information reported. Did the descriptive information actually happen? Examples of this are events, phenomenon, objects etc. This kind of validity is highly important because descriptive information is often the keystone in qualitative research. Johnson (1997) argues that this validity can be increased by using researcher triangulation. Researcher triangulation refers to the use of multiple researchers in order to ensure that the facts reported actually happened. Since I decided to conduct this research project alone and that I promised full anonymity, researcher triangulation was not possible. However, all the interviews were recorded and I will use direct quotations when descriptive information is reported later. I do acknowledge that a high level of descriptive validity may not be obtained, but the nature of this research project did not allow me to deploy an effective strategy towards this.

Interpretative validity

Interpretive validity refers to the degree of which the informants meaning, viewpoints, thoughts and experiences have been interpreted and reported correctly. One strategy that Johnson (1997) offers to address this is by the use of informant feedback. Meaning that the informant is offered to give additional input to the interpretations made by the researcher. Johnson (1997, p. 285) acknowledges that this strategy is not perfect since '*informants may attempt to put on a good face'.* This was addressed at the end of each interview were I described my findings and asked if I had interpreted the informants correctly. I was also focused on this issue during the interview and I frequently tried to clear up any potential misunderstandings during this process. Every informant was asked if I could contact him or her later if necessary. Johnson (1997) also describes the use of low interference descriptors to obtain interpretative validity. This includes using the informants own language, dialect and personal meanings. This was addressed by using a semi-full transcription as described earlier. Even though the final report is in English, all the analysis work was done in the informant's first language. The interviews were also transcribed in the participants own dialect. The quotes used in this report are directly translated in order to offer the possibility for the reader to conduct their own interpretation. This also creates transparency in the research project.

Theoretical validity

Theoretical validity refers to the degree of which theoretical explanations and assumptions fits the data and the findings. A theory usually describes why and how a phenomenon occurs and theoretical validity can be defined as how well the data explains these questions. One of the most eminent strategies to increase the theoretical validity is by using theoretical triangulation (Johnson, 1997). During the theoretical review of this project I have gained extensive knowledge about the different theories addressing the nature of competitive advantage. My knowledge about these theories will increase the theoretical validity since it offers different and sometimes competing explanations to the source of competitive advantage.

Johnson (1997) also argues that the theoretical validity can be increased by pattern matching. Pattern matching involves making multiple predictions at once. If all of the predictions occur as the researcher predicted and one has found a pattern, the evidence is supporting the

explanations given by the theories. This was done by the development of the conceptual model which will be discussed in chapter 6.2.

Internal validity

The internal validity refers to the degree of which the researcher can justify and explain the observed cause and effect relationships. Savin-Baden and Major (2013) measures internal validity as the degree of which the findings match reality. In compliance with the strategies presented by Johnson (1997) I have deployed methods triangulation by using both interviews as a data collecting process and by controlling some of the findings with archive records. I have also deployed data triangulation by collecting data from two informants from each case. None of these triangulations revealed any inconsistencies and I therefore consider this research project to have high degree of internal validity.

External validity

External validity refers to the degree of which the findings are generalizable to other settings, sets of people, times etc. In other words, can the findings be assumed to be true for other cases? However, generalization is not necessarily the purpose of qualitative research. Since I used theoretical sampling rather than statistical sampling, it would be inappropriate to claim a high level of external validity in this project. However, this is the case of most qualitative research. The findings of my research are not simply unique to a single case. Due to my choice of a multiple-case design, I have reduced the potential for unique findings if there is evidence of cross-case patterns. This does not imply that the findings from the sample are true for the entire population. Yin (2009) argues that the generalizability can be increased by replication. This means that if a research project is replicated in a different setting, with different people and in a different time, it has the potential to apply for more than just one specific sample. However, this is not in my hands but to in the hands of other researcher. As Johnson (1997) argues, the researcher can facilitate the replication by increasing the transparency of his/her research. I have tried to do so by writing an extensive and thorough methodology chapter and to include a direct translated copy of the interview guide. The use of a structured interview guide also facilitates replication. All this considered, I believe that this

research project yields a high level of external validity, but limited to the natural limitations of qualitative research.

Reliability

Yin (2009, p. 45) believes that a research project has reliability if *'a later investigator followed the same procedures as described by an earlier investigator and conducted the same case study all over again, the later investigator should arrive at the same findings and conclusions'.* It is important to emphasise that the findings should be the same if a new researcher is doing the *same* case study, and not a replication. One strategy to ensure reliability is to document the procedures in the project (Meyer, 2001; Yin, 2009). Without such documentation, it would be impossible for even yourself or others to repeat a research project. This master thesis and its methodology chapter can be considered to be this documentation. If the data collection method includes interviews, one method to increase the reliability is by the use of a recording device (Ryen, 2002). The researcher can then use the informants' own verbal versions instead of the researcher's recollection of the interview. All the interviews in this research project were recorded and direct quotations are used when the findings are presented. Another strategy to increase the reliability is by the use of researcher triangulation in the analysis work (Ryen, 2002). This criteria is not possible for me to fulfil since I am working alone, which is not uncommon in qualitative research (Meyer, 2001). One option that I considered in the early stages of this project was to include a fellow student in the analysis work. This option was no longer available when I decided to offer full anonymity to the informants.

Despite the natural limitations of working alone, I believe that I have done what I can to increase the reliability. I have tried to be as open as possible in regards to the chosen theory, research approach, research design, sampling, data collection process and analysis. Therefore, I argue that the findings in this study are as reliable as possible under the given limitations.

5.0. Data analysis and findings

In this chapter, I will present the data analysis together with the findings. The four cases will first be analysed individually. I will begin by briefly presenting the companies before I move on to reviewing their market dynamism. Each case will be concluded with an analysis of their competitive situation. After the individual analysis, I will conduct a cross-case pattern analysis in order to look for any similarities amongst the cases. I will begin by analysing *Biotech* and *Engineering* which has a competitive disadvantage. Then the two companies which has a competitive advantage, *Mediahouse* and *Software,* will be analysed.

5.1. Biotech

Biotech is a small company that develops, produce, promotes and sells diagnostic tests. Their main customers are hospitals, laboratories and general practitioners both nationally and internationally. *Biotech* has specialised in measuring a specific marker which can aid doctors in diagnosing and medicate patients who have a specific chronic disease. The product portfolio of *Biotech* consists of different tests that measure this specific marker and are sold mostly in Europa and the United States. *Biotech* was actually the first to identify this marker and has therefore drawn benefits from patents for several years. However, this patent expired a few years ago and *Biotech* has not since managed to maintain their profit level.

Market dynamism

Biotech has previously been protected by patents and thus had a monopoly in the market. After the patent's expiration, many new competitors has entered the marked and the competitive intensity has increased.

> "*As long as Biotech had patents, we had patents for many years, we had few competitors but we also had a very small market. Now we have a market but we have many more competitors."*
>
> *-Biotech1*

New competitors however, does not only increase the competitive intensity, but it also promotes technological changes and innovation amongst the competitors. The technology

possessed by *Biotech* can therefore be considered as old fashion according to *Biotech1*. The tests produced by *Biotech* only measure one specific marker, but several competitors has integrated a similar test into machines that can do several other tests simultaneously. These products are undoubtedly more desirable for laboratories.

> *"There has been new technological advances where suppliers of big machines, analyser machines for the laboratories, have set up our test on their existing platform. And those platforms are seen as more modern and efficient than that technology we have on our product today."*
>
> *-Biotech1*

According to *Biotech2,* these machines will make it difficult to sell *Biotech's* products in the future.

> *"It is clear that the laboratory test we have, have originally been a manual test. And I believe that, at least in Scandinavia, it will not be possible to sell them anymore."*
>
> *-Biotech2*

Not only has the competitive landscape changed in the biotechnological industry, but the customer preferences has changed as well. *Biotech* is one of the leading firms when it comes to quality, but the customers have lately preferred user friendliness and automation, which comes with these new machines.

> *"I would say that quality has been more important before. There is a trend now that automation… That they are willing to compromise on quality to get more automated processes so that it becomes easier for them to use the product."*
>
> *-Biotech1*

As you would expect in any personal health industry, both national and international authorities are regulating the biotechnological industry. It can be argued that the regulations do not contribute to the market dynamism, but has the potential to make the industry more stable. However, *Biotech2* argues that new regulations are developed frequently and that creates a certain pressure and need for the company to change in order to comply with these regulations.

> *"But it is clear that there is for example always new regulatory requirements, that is, requirements from authorities on how the company shall ... Because this is an area*

which is regulated by authorities. EU has its own directive which govern how this industry shall operate, how we shall produce, how we shall develop, what kind of quality we shall have."

-Biotech2

After reviewing *Biotech,* I believe that their market can be characterized as highly dynamic. The number of competitors and competitive intensity has increased. The customers' preferences has changed and the industry has seen new technological advances. Authorities such as the European Union are also frequently changing the 'rules of play' and makes the market even more dynamic. The companies in this industry need to constantly adapt to shifts in the market and thus that the criteria for market dynamism has been fulfilled.

Biotech's **competitive situation**

Since the patents held by *Biotech* expired a few years ago, the market has grown substantially and it appears that *Biotech* did not manage to grow in line with the market. After the interview *Biotech1* told me that if it were not for the American market, *Biotech* would have been in danger of going bankrupt. In order to operate in the American market, the companies must go through extensive certification processes and *Biotech* is currently one of two companies competing in this market.

"We lose more companies (customers) *than we win I would say. (…) but our biggest market is Europe. You can say, we have stable sales but for me that means that it is not good enough because I think we should have been able to grow."*

-Biotech1

Biotech2 who also believe that the *Biotech* has not managed to grow in line with the rest of the market confirms this competitive situation described by *Biotech1*.

"I actually think that the growth of Biotech is lower than the rest of the market. It is medical laboratories which is our main area and there has been a big growth there. If you look at our sales outside of USA, then we have actually stayed still. We have won customer and we have lost customer but we have been constant overall for many years."

-Biotech2

It appears that the reason for their competitive disadvantage stems from their resources, or rather the corruptions of resources. When asked what was the most important resources to *Biotech, Biotech1* answered quality and their brand/image. I therefore investigated the characteristics of these resources in regards to the VRIN-attributes (valuable, rare, non-imitable and non-substitutable) of Barney (1991). Obviously, quality can be considered valuable since *Biotech1* mentions it as important. When asked about the degree of rarity, *Biotech1* describes their company as one of the best:

> *"(…) what we get in the rapports* (conducted by a third-party) *is that we are amongst the top two, but we are not the only one that has good quality, we have better quality that most of our competitors."*
>
> *-Biotech1*

Quality by itself is difficult to imitate or substitute. Therefore, the quality of *Biotech* should be a contributor to competitive advantage, but *Biotech is* still experiencing a competitive disadvantage. One of the reason for this is that the customer preferences has changed and automation is considered more preferable than quality by the customers. Thus, an external market force has corrupted on the most important resources of *Biotech* and made that particular resource less valuable. As Barney (1991) argues, it doesn't matter if a resource is rare, non-imitable and non-substitutable if it is not valuable.

The other important resource, brand/image, has also decreased in value. *Biotech2* says that *Biotech* experienced trouble with bacterial growth in their products and their image was consequently damaged.

> *"Many years ago, we had a problem with bacterial growth in our standards. That resulted in us having to withdraw several products from the market, withdraw an entire batch. We had to send letters to all of our customers and it was a customer who noticed it and not us, only that is bad enough! We actually lost multiple customers because of that and we are still struggling with that event. 'oh yes, that is the ones with the growth problems' some say. It is incredible how long that stays with you."*
>
> *-Biotech2*

It is interesting to see that neither of *Biotech's* resources possess the VRIN-attributes and thus according to Barney (1991), *Biotech* cannot have a competitive advantage. This argument is supported by the competitive situation of *Biotech.*

When asked explicitly on why *Biotech* performs worse compared to their competitors *Biotech1 answers:*

> *"That is because it has come new technology which we have not managed to defend against efficiently. That is the short, simple explanation."*
>
> *-Biotech1*

Biotech1 is referring to the big machines that offers a range of other tests and is more user friendly. Drawing lines to the work of Teece (2007), *Biotech* failed to sense this threat and did not manage to modify their resource configuration in order to maintain the previously held competitive advantage. The new technology that competitors offered was so superior that the technology possessed by *Biotech* was considered out-dated. *Biotech* do in fact have a product which make the process more user friendly, however the competitors experience first-mover advantage since they managed to sense and seize the opportunity of changes in the customer preference more quickly. *Biotech* failed to see the opportunity and thus failed to see the threats of other companies seizing this opportunity. *Biotech* did invent *product x* which supposedly should make the entire process more automated, but they have not been able to introduce this product effectively in the market.

> *"We could have defended us by introducing technology we already have* (product x), *but it doesn't help that we have it in the drawers if we are not able to get it out in the market."*
>
> *-Biotech1*

This is supported by *Biotech2.*

> *"We need to strengthen marketing and sales. It is only in recent years there has been a permanent position in this area. This was something that the general manager did on the side after everything else. Everyone does almost everything when you have so few employees."*
>
> *-Biotech2*

The quotes above shows evidence of lack of dynamic capabilities in *Biotech.* The company was aware of the need to strengthen marketing and sales in order to defend against the threat of new technology. However, they did not manage to obtain new resources, or modify their current resource configuration to create a better marketing and sales team. This case supports the argument of dynamic capabilities theory that market forces will corrupt the VRIN-resources in dynamic markets. When this occurred, *Biotech* did not have the dynamic capabilities to extend or modify their resource configurations in order to maintain their competitive advantage. This corruption could have been sensed and action could have been taken to maintain the value of their resources. Thus, I find support for the dynamic capabilities as the source of competitive advantage in dynamic markets.

However when investigating *Biotech*, I made another interesting finding. *Biotech* is currently in the process of introducing a new product in the market which they have developed based on sensed opportunities.

> *"The entire population of Europe becomes older and older, and health services becomes more in demand. Shall you keep the structure of the health services you have today so will everything fall within a short amount of time. Things must be pushed down in the system, it must be pushed down to the individual doctor's office and all the way to the patient's home. So you have to push the job onto them."*
>
> *-Biotech2*

Biotech1 also emphasises this opportunity.

> *"We have chosen to pursue the home market because we believe that e-health makes patients responsible and makes the patient capable of managing their own disease. We believe that is something which comes in the future."*
>
> *-Biotech1*

This is an example of *Biotech* sensing and seizing an opportunity which is one the core capabilities of the dynamic capabilities (Teece, 2007). This product will allow the patient to do the same test that is done in laboratories, in their own homes and digitally transfer the result to their general practitioner or hospital. *Biotech* thus shows evidence of dynamic capabilities in the form of new product development, one of the organizational activities emphasized by Eisenhardt and Martin (2000). However, even though *Biotech* has managed to create new resources in the form of a new product, the sales of this product is rather modest.

This suggests that *Biotech* does not have the dynamic capabilities to modify their human resources into an effective sales and marketing team.

> *"Yes there has been little sales so far. It has been in the market for a year and it has not been sold very many units. That really shows how hard it is to, how long time it takes to come with a brand new product. (…) Home testing of this kind have never been done before. So it appears that it takes extra-long time before you actually start getting customers. To obtain customer is rather time consuming."*
>
> *-Biotech2*

Even though *Biotech* has the potential to earn Schumpeterian rents in the future, the reason for their competitive disadvantage seems to be due their lack of dynamic capabilities. Or rather, that the deployment of their dynamic capabilities is slow and not continuous. If so, *Biotech* might expect to have a cyclic competitive situation with a lag between the competitive advantages earned. This is of course given that they manage to continue with successful product development in the future and that this current innovation is in fact successful. In order to obtain a sustained competitive advantage in dynamic markets, it is argued that the companies must create a series of temporary advantages (Eisenhardt & Martin, 2000). *Biotech* seems to be between two of these temporary advantages and is therefore currently experiencing a competitive disadvantage. The time between the temporary disadvantages could be reduced if *Biotech* was could sense the opportunities and threats presented above sooner. This would enable *Biotech* to deploy their dynamic capabilities before their previous resources lost their value and thus always be a step ahead of the competition. However, it should be emphasised that this logic only works if *Biotech* is successful with their product development now and in the future.

5.2. Engineering

Engineering is a B2B company and sells customised machines and equipment in addition to services in the form of reparations to their customers. They also take part in the development of the customer's processes and contribute to the entire value creation from the customer's idea to a finished product. The customers of *Engineering* come from multiple industries and are both national and international. *Engineering* creates new components and put together proven components in new ways in order to tailor their product to the customer's need.

Market dynamism

Engineering operates in many different markets and market segments and therefore faces different competitors in different markets. This creates an unclear industry boundary and makes it difficult to establish an overview of the competitive landscape. Due to the recession in the oil industry for the last years, Engineering has experienced that previous oil companies has moved into their markets in order to stay profitable.

> *"We have many competitors and we operate in many different industries. So, we have competitors both nationally and internationally. Depending whether its package machines or machines for welding components to the structure of a plane. So I do not even have a good track of all of our competitors."*
>
> *-Engineering1*

In addition to an increasingly intense competitive environment, the engineering industry is prone to rapid changes in technology. These changes, or inventions, can change the rules of play and *Engineering* is required to adapt to these new technologies in order to stay competitive. The local authorities can change regulations which imposes another dynamic dimension to *Engineering*. These risks are amplified by the fact that *Engineering* is operating in so many different markets.

> *"(…) because the market changes all the time. There are technological inventions. There are new pre-requisites for operating in a market. It can be environmental, it can be imposed by the government which forces you to adapt to the market you are currently inn."*
>
> *-Engineering2*

When asked about changes in customer preference, *Engineering1* responded that they have been the same as always. However, the factors referred to by *Enginering1* are price, time of delivery and quality, and are on a more macro-level. Since *Engineering* delivers tailored product, each customer's preference is highly unique. After the interview, *Engineering1* informed that they use an extensive amount of time just mapping out the customer preferences and needs. This process is crucial when producing products that are tailored to the customer.

"There are three things that recurs with the customer. It is price, delivery time and quality. So performance on the outside. That has been there from the beginning. And we consider that always, that have to be fundamental."

-Engineering1

Given the lack of rapid changes in the customer preferences, I acknowledge that not all the criteria for a dynamic market is fulfilled. However, I argue that *Engineering* still shows evidence of market dynamism in their competitive environment. This is mainly because of the unclear industry boundaries, changes in technology, increasing competitive rivalry and changes in government regulations. I am therefore confident that *Engineering* operates in a dynamic market even though the level of dynamism is not perfect.

Competitive situation

Both informants expressed that the competitive situation was more similar to a competitive parity rather than a competitive disadvantage. It is also interesting to notice that both informants quickly mentioned that *Engineering* had been historically superior in regards to market share and profitability which implies that the informants does not want to 'loose face'.

"We performed perhaps worse than our competitors three years ago. Because we lost money and money was flowing out of the company."

- Engineering2

"In regards to profits, we are about equal to our competitors. We have historically performed much better than our competitors."

-Engineering1

However, according to the public financial record from 'Brønnøysundregisterene', *Engineering* has experienced a financial loss for the past 6 years. In comparison with other similar engineering companies, this is below the industry average which shows signs of a systematic competitive disadvantage.

It appears that *Engineering* was a highly profitable company earlier, but that changed quickly according to their financial statements and the interviews. I interpret this as *Engineering* used to have a competitive advantage, then lost it and did not manage to re-obtain it. What is interesting then is why this occurred.

When examining the resources of *Engineering*, I was not able to find any resources that possessed all of the VRIN-attributes. When asked about why Engineering does it competitively similarly to their competitors, *Engineering1* answered:

> *"We do things in the same way and sell it to the customers. There is nothing unique that separates us from the competitors."*
>
> *-Engineering1*

This shows that *Engineering* does not possess any rare resources which is according to Barney (1991) necessary in order to obtain a temporary competitive advantage. However, this also tells us that *Engineering* is not able to obtain such resources, at least not for the time being. Thus showing a lack of dynamic capabilities. Both informants also listed up the workforce and technological competence as their most important resource. This however does not appear as being a rare resource. When confronted with this both informants answered very vaguely and one informant partly admitted that this particular resource was not very rare in the industry. It can be argued that the lack of clear evidence of competitive disadvantage in the form of informant confirmation is a weakness in this study. Even though I do acknowledge this possibility, I believe that this can be explained by the fact that the informants do not want to admit or realise the competitive disadvantage. This is in my opinion supported by the vague answers when confronted about the rarity of their most important resources.

The evidence shows that *Engineering* does not have any VRIN-resources and thus do not have any competitive advantage. However as mentioned by the informants, *Engineering* has historically performed better than their competitors and it is interesting to find out why this came to an end. *Engineering* was previously dependant on one giant customer which was responsible for almost 100% of *Engineering's* sales. The contract was terminated overnight and *Engineering* consequently lost their competitive advantage. The reason for the termination was that foreign companies entered the market which made *Engineering* redundant.

"Engineering went from having one big customer which took 100% of the market to Engineering. Then that was turned off overnight and then you have a measured period afterwards where you have to turn the tendency."

-Engineering2

It appears as *Engineering* was too dependent on one single customer and therefore quite vulnerable. This relationship with *Customer X* can be viewed as a resource which most certainly possessed the VRIN-attributes. External market forces in the form of foreign competitors corrupted this resource and thus their competitive advantage. When this happened, *Engineering* did not manage to successfully deploy dynamic capabilities and modify their existing resource base to obtain new VRIN-resources. It can be discussed how long this transformation should take but *Engineering* has not yet managed to re-obtained their competitive advantage for the past six years. Another important point is that *Engineering* also shows a lack of sensing threats in the market which could have given *Engineering* more time to deploy their dynamic capabilities and obtain new resources.

"The restructuring after [Customer X], we were not able to replace it with any products. So we used many years to restructure ourselves and have had negative results since 20xx."

-Engineering1

Interestingly enough, in another part of the interview *Engineering1* considers themselves to be quite good at replacing their resources to places where they are needed the most.

"I experience us as good at changing, either if it is to move resources to other places where they fit better because we must have a change or to get new ones (resources) *in. That is something I believe we are good at."*

-Engineering1

It is difficult to explain why this deviation in opinion and I as an interviewer should have caught up on that. Given my lack of experience, I was not able to do so. It might be possible that *Engineering* is in fact good at changing and moving their resources, but that this has not yet produced any value.

It seems that *Engineering* supports the argument that it is only possible to obtain temporary advantages in dynamic markets and that market forces will eventually corrupt these

advantages. Looking at their financial statement, it seems like the negative tendency is about to turn and *Engineering* is finally breaking even. In other words, *Engineering* is possibly between two temporary advantages if the trend continues and the profitability does not stagnate. However, their lack of dynamic capabilities and their lack of the core capabilities of the dynamic capabilities has made this period rather long. If the dynamic capabilities were in place, and if *Engineering* was able to seize and manage opportunities and threats, *Engineering* might have been able to obtain a new temporary advantage and thus not be in need of the current transition period.

5.3. Mediahouse

Mediahouse is a digital media company which delivers services to both private and business customers. Their market can be divided into users and customers and even though they do not necessarily generate direct revenue from the users, they increase the business customers in the form of demand for advertising on the digital platform. *Mediahouse* is a strictly digital company which is one of the main trends in the media industry. The unique aspect of *Mediahouse* is that there exists high levels of increasing returns of adoption. *Mediahouse* was also one of the first companies that adopted a digital strategy making their current presence in the market rather eminent.

Market dynamism

The industry in which *Mediahouse* operates is as any other industry, prone to the digital revolution. The fact that *Mediahouse* started as a digital company does not make this threat/opportunity any more or less serious. The digitalisation of the world has increased the requirements of the customer. Even though the basic requirements and needs are the same, the requirements to functionality and ease of use are increasing dramatically.

"I think that the underlying needs are quite static, but the need for functionality and how things actually work in the market, that is something I believe are changing quite a lot. Because there are constantly new digital services presented in the market within all kinds of areas which affect peoples' expectations about both user friendliness and efficiency in a digital service."

-Mediahouse2

These technological changes in the form of digital opportunities and advances forces *Mediahouse* to always change in order to stay competitive. There is always a threat that new competitors will enter the market and offer better products which deploys these changes in technology. The technological changes creates a snowball effect where the customer demands also changes rapidly. The fundamental pre-requisites for operating in the market are increasing due to the high expectations from both the customers and the users.

"Yes so, it is perfectly clear that we must evolve and we do so. And if we do not do that, then I think other alternatives will come which meet the customer and the users' needs in a better way."

-Mediahouse1

In addition to changes in technology and customer preferences, *Mediahouse* are also facing an increasingly global competitive environment. The biggest threat for *Mediahouse* is not domestic companies but rather giant global actors with an extensive amount of resources. These companies have the possibility to exploit the digital changes in a serious manner in order to create new and more effective products.

"What you still can be certain of is that we are not competing towards Norwegian companies, they are not the market challengers. It is the foreign companies, and it is the big giants. (...) So what we have seen for several years now is that if we are to look at the competitive environment, then we must look more globally."

-Mediahouse1

Another aspect that increases the market dynamism is the unclear market boundaries. *Meidahouse1* expressed that these boundaries are not so clear and therefore difficult to single out one particular kind of competitor. I was advised after the interview to spend some time defining the market and the competitive environment. Even though this is not within the scope of the research project, it shows the complexity of the market structure.

> *"So it depends on how you define the market. My whole point is that they* (competitors) *tap into the same media budgets. In that sense you can say that Mediahouse competes with the big global actors, we are competing with other media houses, we are also competing with [Television company X] and [Television company Y] Because you decide yourself which type of media to use. So you can chose where to spend your money."*
>
> *-Mediahouse1*

It is clear that there exists a high level of market dynamism in the competitive environment of *Mediahouse*. They are rapidly experiencing changes in technology in the terms of digitalisation, customer preferences and increased competition by global actors. In addition, the market boundaries are unclear resulting in potentially a countless number of competitors which can impose serious threats to *Mediahouse*. Both informants are also expecting that this competitive intensity will increase due to the fact that even more actors will enter the market and a higher level of aggressive actions by the global competitors. I argue therefore, that the market dynamism is strongly present in this case.

Mediahouse's **competitive situation**

The profitability of *Mediahouse* is according to their financial statement highly satisfying and has been rather constant for at least a decade. When it comes to market share, *Mediahouse* is more in a defensive state since it would be difficult and almost impossible to obtain a higher percentage than they already have.

> *"Market share is of course super important, but we are more in defence there. We do not have any ambitions of growth in Mediahouse because that is almost impossible. There is no doubt that the market share is going to go down because there are competitors which will gain some market share in parts of the market."*
>
> *-Mediahouse2*

There is no doubt *Mediahouse* has a sustained competitive advantage and has experienced that for several years. The existence of their competitive advantage, and perhaps also the sustained competitive advantage is due to the increased returns of adoption. The effect of path dependencies and being the first mover is amplified when such characteristics are present in the market. *Mediahouse* was one of the first media houses that went digital and pursued a

digital strategy. Thus, being the first mover in such a market resulted in a significant competitive position which is not easy for competitors to imitate.

> *"So Mediahouse in itself was an innovation. It was a disruptive innovation where the owners of Mediahouse challenged themselves, their cash cow and then dared to go digitally. This happened in the middle of when the dot com- bubble burst."*
>
> *-Mediahouse2*

The decision of going digital is evidence of a strong ability to sense and seize opportunities. It shows that this specific managerial ability is key to gain competitive advantage in a market where increased returns of adoption is present. To put it in another way, the company that would have sensed and seized this opportunity first would draw the most benefits from the increased returns of adoption. The reason for their initial competitive advantage has now been identified, but according to the dynamic capabilities theory this advantage would eventually be corrupted by the market dynamics. The fourth industrial revolution, the digital revolution, is an example of market dynamics that would impose a threat to *Mediahouse*.

If we start with the resources of *Mediahouse*, one of the most important resources is the knowledge and experience of the Norwegian market. As mentioned, the competitors who impose the biggest threats are the international competitors. When asked about the importance of their knowledge of the Norwegian cultures and values, *Mediahouse2* answers:

> *"We know more about the Norwegian market and particularly more about the Norwegian marked than [Global Competior1] and [Global Competitor2]. (...) Their organizations in Norway is for now quite small. In [Global competitor1] is it probably less than 15 people. They have not invested in recruiting Norwegian labour in the same way as us. We have a different geographical starting point, but we definitely have some challenges when it comes to collecting the best resources* (labour)*"*
>
> *-Mediahouse2*

This implies that this resource, knowledge about the Norwegian culture and values, do not contain the VRIN-attributes. The resource is valuable and rare but is not difficult for especially global competitors to imitate in the form of purchasing Norwegian labour themselves. According to Barney (1991), this resource can only contribute to a temporary competitive advantage.

Another resource which is mentioned is the company culture and the new product development department. Note that I am referring to the company culture and not the Norwegian culture. The culture of a company is obviously very difficult for others to imitate and copy. The knowledge and competence can (almost) always be bought by a company with financial resources, but the culture on the other hand is not something that can easily be acquired by others. The social complexity of a company culture is difficult to imitate or substitute by competitors (Barney, 1991) However, the culture of a company can only contribute to a competitive advantage if it inherits any value. There is always the possibility of causal ambiguity when it comes to abstract things such as culture, but again according to Teece et al. (1997) the causal ambiguity can contribute to the competitive advantage.

> *"We have incredibly skilled employees and we have an incredibly healthy culture. We have some values that everybody in the company knows. (…) and that creates a culture where people dares to make decisions, and dares to make mistakes, that is something I believe is extremely important. So we consequently score well on employee surveys and is one of Norway's best places to work. So people and culture would I say is very important. An important part of [Mediahouse's] success."*
>
> *-Mediahouse1*

The culture can definitely be a VRIN-resource but I argue that it can also show evidence of dynamic capabilities. Since the culture of *Mediahouse* allows for people to make decisions, they can change rapidly and modify their resource base when needed. Teece (2007) refers to this as 'high-flex firms" where there is low degree of centralization and companies thus become more flexible to respond to market dynamics.

If we go back to discussion of path dependencies, *Mediahouse2* shows evidence of the benefits a company can gain from being a first mover.

"Yes a lot is because of the history. That we have a position and what we have of competitors needs to start from scratch. And it is obvious that brand knowledge and brand liking is of course incredibly important factor when it comes to Mediahouse. But I believe also internally, in addition to being well liked as a brand by the users, Mediahouse scores very good on this 'best place to work' surveys and that is probably a very important thing in order to conduct valuable product development and continuous innovation. Because Mediahouse has a giant advantage in regards to attracting the best people. The best programmers and developers are lining up by the door to come work for us because Mediahouse is a fun and nice place to work. I think that is super important in order to succeed."

-Mediahouse2

The interesting thing about this quote is that *Mediahouse2* mentions 'continuous innovation' which is similar to series-innovations and is argued in the dynamic capabilities theory as being the key for sustained competitive advantage (Eisenhardt & Martin, 2000; Teece, 2007; Teece et al., 1997). *Mediahouse* is a company that focuses and invests heavily in their new product development department. Examples of their seizing of opportunities and product innovation is their development of numerous subsidiaries that offers different services to the customers. *Mediahouse* saw an opportunity in the form of changes in customer needs which then created demand for these services. Product innovation is according to Eisenhardt and Martin (2000) one of the most important dynamic capabilities and is a way to modify your resource base (the people) in order to create new resources (new products).

The reason for *Mediahouse's* focus on product innovation is due to their ability to sense external threats that might corrupt the degree of value of their current products. Recall this quote from the market dynamism section:

"Yes so, it is perfectly clear that we must evolve and we do so. And if we don't do that, then I think other alternatives will come which meet the customers' and the users' needs in a better way."

-Mediahouse1

Mediahouse are always deploying their dynamic capabilities in the form of new product development and a flexible organisational culture in order to always stay in front of the competition. They are constantly modifying their own resources which is prone to being

corrupted by market dynamics and therefore creates a series of temporary advantages. The situation of *Mediahouse* therefore offers strong evidence to the dynamic capabilities theory. By reviewing this case, I argue that the competitive advantage was created by first mover advantages, but sustained by their dynamic capabilities. Due to their constant renewal of company resources, *Mediahouse* does never fall in between a pair of temporary advantages since the managing of threats and seizing of opportunities are happening continuously.

5.4. Software

Software is a medium sized IT-consultant company that sells services strictly to business customers in both the public and private sector. They have specialised in selling products that are tailored to the customer's needs and do not sell standard generic products. *Software* is therefore building systems from scratch where there are no standard systems to begin with. Their core competence is system development, but they also provide services within project management, process counselling, business counselling and pure programming. *Software* focuses on selling teams rather than individual heads and tries to accept projects that are over a certain size.

Market dynamism

> *"Because we are in a world where digitalization is … I think it is quite obvious that a lot more will be digitalized."*
>
> *-Software2*

The IT industry has been experiencing significance growth ever since the 'dot.com'-bubble burst in the 90s. Companies are investing more and more in IT and digital solutions which make the IT industry and attractive industry to operate in. Along with the attractive profitability on an industry level, the digital revolution has resulted in changes in customer preferences and rapid advancement in technology. Companies are starting to not simply use IT as a support tool, but as an integrated part of the company's strategy.

> *"We have seen that some of our customers have grown to become very big, from being a little bit smaller customers. That is linked to the fact that you are using IT and our types of services to a much greater extent than they did before. So things have changed*

in that way. What we see is that the customers are changing from using IT as a support tool, to use IT and digitalization and to create solutions and base the business… in a way relying on the use of IT for organizational development and for business development."

-Software1

The digital revolution creates a snowball effect in the sense that the demand for IT services increase, which again increases the industry profitability, which again increases the number of actors and which again promote technological advancement and innovation. These rapid changes in market forces creates a high degree of dynamism where everything is in motion. The companies in the industry must continuously adapt to these changes in order to stay competitive.

"We are in a technological market so technologically, what you want professionally, what you should know technologically, what you should know methodically, how you work. That is in motion constantly. Technically, you are falling behind if you go on parent leave for six months. (…) IT, does it evolve? Yes, and it happens terribly fast all the time. The tools we work with change. The solution we work with change. The methodology we work with change. So we are in way in motion all the time."

-Software2

Software1 supports *Software2* in that there is rapid changes in the business environment.

"We are in an industry that is evolving fast and everyone who is serious and has ambitions and are skilled, are ahead in exactly that. That means that we are pulling each other forward. There is sort of a fight in showing that you are in front, and that is a way to be attractive for employees. Have good systems for competence development. I will definitely say that we are in an industry that is in rapid evolvement. (…) We must show that we can deliver on the new thing that are coming all the time. And if we can not do that in this industry, then others will emerge and show that they can, and we will not succeed."

-Software1

As mentioned, the industry profitability attract many actors. There are also low entry barriers in the industry which results in an overflow of IT companies. This creates another form of dynamism in the sense that it is so easy to start up your own IT company. According to

Software2: all it takes is a smart solution or innovation, a computer and a desk then you are good to go. However, these companies seldom gain a significant market share and usually stays rather small in terms of sales and employees. Even though these companies are quite small, they do impose threats to existing and more established companies.

> *"How many are there? There is an ocean of competitors. The startup costs for a consultant company, in their simplest form, is relatively low."*
>
> *-Software2*

Due to the evidence above, I argue that there is strong evidence that the market dynamism is present in this case. The global trends toward digitalization creates frequent changes in customer preferences and needs, technology and the overall competitive landscape.

Software's **competitive situation**

The IT industry is filled with numerous competitors ranging from small companies to companies with over 1000 employees. The big companies takes the majority of the market share and makes it difficult for anyone to grab a substantial part of the market. *Software* however has for the last decade performed above industry average in the terms of profitability and growth, and no other company has managed to copy their performance.

> *"In terms of profitability in Norway today, then we are at number 1-2. We have been there for the last 10 years. We have had for 10 years, on average over 20% EBITDA and that is very good. That is good in any market you are operating in, and in addition to that have we had 20% growth. However, there are some who has grown faster than we have, but they have not had the same profitability. They are starting to catch up on profitability but they are also slowing down on their growth rate."*
>
> *-Software1*

The competitive situation described by *Software1* is confirmed by the description from *Software2.*

"The part where we have differentiated us the most here in Norway is that we have a much better bottom line than almost all of our competitors. We have not had that for one or two years, we have had that continuously for the past ten or eleven years. (...) On profitability, I believe we are at the top. I think maybe that we are best in class in Norway. That does not mean we have the best profitability every single year, but if you look at this over a span of several years, then I think we are almost alone."

-Software2

The competitive advantage in this case is quite eminent, making this case very fitting for this research project. We also have a case which appears to have a sustained competitive advantage for at least a decade. Even though *Mediahouse* possesses a sustained competitive advantage as well, that was created mainly through path dependencies and an increased return of adoption. However, this does not seem to be a key aspect in the competitive advantage of *Software*.

When investigating the reason for their competitive advantage, I was not able to identify any clear VRIN-resources. When asked about which resource is the most important for the company's success, both informants said the workforce. In an IT-consultant company, there is no surprise that the workforce and their knowledge is of substantial value. However, this resource do not seem to be that difficult for competitors to copy or imitate and you would think that this resource was common throughout the industry.

"The most important [resource] are the employees. They are both number one and two actually."

-Software1

The skill level of *Software's* workforce has to be higher than the rest of the competition in order for that to contribute to the competitive advantage. This is supported by the fact that *Software* uses low switching cost to obtain customers. Normally a company would like to increase the switching costs so they create a lock-in effect with the customer. *Software* on the other hand emphasises that there are low switching costs associated with them and by that increase the number of sales. The skill level of the employees is so high that the customer are not going to want to switch supplier even if the associated costs are low. This contradicts the argument of Teece et al. (1997) that high switching costs benefits firms in dynamic markets with rapid technological advances.

"What is important her is to make the switching costs as small as possible so when you deliver, everything well documented and it is easy to work with, you follow given standards on this and you have a consensus on how this should be done so that it is easy for others to take over. We say to the customer that if they want to switch [supplier], then they are allowed to do so and it will be easy for them to switch. In regards to working with a customer, we do not want to make a customer dependant on us. We think that if we are able to deliver and show openness, show initiative and challenge them in a positive way, then the customer want to use us more because we take ownership in what we are a part of. Then it is easy for them to continue with us."

-Software1

It seems like the workforce and the competence of *Software* is a resource which may have the VRIN-attributes after all. One of the reason for the rarity of this resource is that *Software* emphasises recruiting in their daily operations. As *Software2* informed, there is almost a job interview here every week. When asked about why other companies did not emphasise recruiting in the same degree, *Software2* expressed that it is a tendency in the industry to have a short-term mindset. Most of the competitors simply see the costs of these processes and not the long-term benefits.

"(…) we are also working in the recruitment market. That is a separate market for us. We are recruiting continuously. There is a job interview here almost every week. (…) Some try to do that (focus on recruiting) *but I do not think they are very successful. This is an industry which I experience as extremely short-term. People think very short and it is money now, short term. I mean that is one of the reasons for why we have performed so well, we have a long-term mindset on almost everything we do."*

-Software2

The recruitment strategy is a strategy that seems to be more emphasised by *Software* than other competitors, or simply done more efficiently. As *Software2* mentioned, some of the competitors do not succeed with their recruitment processes and this imply that *Software* possesses tacit knowledge. The other companies that neglects the importance of recruitment might lack a good management that see the long-term benefits of such investments. If the reason for their success in recruitment lies in the tacit knowledge then this resource can possess the VRIN-attributes, thus contributing to the competitive advantage. If the success of their recruitment processes lies in the managerial knowledge and focus, companies could buy

this knowledge in the factor market, thus not contributing to the competitive advantage. One other explanation could be that there is some casual ambiguity in regards to the effect recruitment process has on competitive advantage. This ability to see through this causal ambiguity can be defined as a resource in itself.

We have now discussed that the workforce and the competence they possess is an important resource for *Software*. In a dynamic market you would expect that the level of value of this resource will eventually be corrupted. As reviewed in the market dynamism section of this case, new technologies frequently enter the market which will render old knowledge and competence obsolete. *Software* acknowledges this threat and views their knowledge as highly perishable. Firstly, *Software* senses this threat and secondly, manages it by deploying their dynamic capabilities. They have created a business model which emphasises learning in order to keep the knowledge flow rapid. As informed several times during the interview, there is nothing static in *Software*, everything is in motion including the market forces and the company itself.

> *"Let me put it this way, it* (business model) *is always in motion of course, but it is clear that this is a business model of how you function. Everything from salary systems to career models. Career models is also an important part. That is also a reason for why we attract people. We have a good career model, we have a development program, we have a professional development section. Are you going to attract the best professional people, then you must offer a good professional environment. And a good professional environment, if you do not fertilize and develop it further, then it will not last that long. It needs to be in development constantly."*
>
> *-Software2*

Software1 confirms the importance of having a well-structured development program for the employees.

"Also, it is clearly a strategy to have the best personal development program. The knowledge we provide is fresh and we are almost exclusively hiring graduates. So to have a personal development program and a career developments program in regards to both the professional aspect, but career paths in regards to the ability to develop yourself as a leader or technical specialist and so on. To have a good system on this becomes more and more important because that is something we can differentiate ourselves from our competitors. Show that we have the best systems which grants you the best development and that you do not need another company. You want to be with us because you think okay, there is no point for me to go anywhere else because then I lose momentum."

-Software1

The evidence suggest that *Software* safeguards themselves by always being in motion. They manage the threats by constantly modifying and renewing their resource configuration so that the market forces cannot corrupt their competitive advantage. *Software* as a case strongly supports the dynamic capabilities theory by possessing a high level of dynamic capabilities and to sustain their competitive advantage in the dynamic market. Since the resources are always changing and thereby the source of their competitive advantage is always changing, I argue that *Software* is experiencing a sustained competitive advantage through a series of temporary competitive advantages. Another way to look at it is that the market forces does not have time to corrupt the VRIN-attributes of a resource because the resource has already been changed or modified.

5.5. Comparative analysis

I will in this section conduct a comparative analysis of the four cases. This will allow me to look for patterns and similarities among the cases and to investigate if there are any coherence in the findings related to describing the phenomenon competitive advantage in dynamic markets. A discussion about the findings will follow in the next chapter. The main comparative findings are illustrated in figure 5.

	Biotech	Engineering	Mediahouse	Software
Common resources	Yes	Yes	Yes	Yes
VRIN-resources	No	No	Yes	Partly
Corruption of resources	Yes	Yes	No	No
Continuous deployment of dynamic capabilities	No	No	Yes	Yes
Seize opportunities	Partly	No	Yes	Yes
Successfully manage threats	No	No	Yes	Yes

Figure 5: Comparative findings

Common resources, VRIN-resources and corruption of resources

The analysis of the cases shows that every case possesses common resources, meaning resources that are valuable but not rare in the industry. This find was expected since the existence of common resources are necessary to operate at all by achieving at least a competitive parity. The more interesting find is that none of the firms with a competitive disadvantage had any clear VRIN-resources at the time of this research project. *Biotech* had patents and their superior quality, and *Engineering* had their relationship with a big customer. All of these resources were corrupted and seems to explain the competitive disadvantage they are now experiencing. In regards to the companies with a competitive advantage, *Mediahouse* has significant evidence of VRIN-resources in the form of a superior market share protected by the increased returns of adoption, brand name and liking, and their organizational culture. *Software* on the other side partly shows evidence of VRIN-resources. It appears that one of the most important resource of *Software* is their ability to recruit competent people, or rather people who are able to obtain new knowledge quickly. As discussed in the analysis section of *Software*, this ability (resource) does not seem to be very difficult to imitate by the competitors. The only reason for the potential non-imitability of this resource is if the recruitment process contains a lot of tacit knowledge. However, I did not manage to establish this link and this dimension is thus marked as *partly* in figure 5.

There seems to be a pattern in the corruption of resources amongst the cases. Both the cases with a competitive disadvantage experienced that their most important resources were corrupted due to external market forces. The companies with a competitive advantage on the other hand said that they have not experienced this at all. This suggests that the companies

that manages to sustain their competitive advantage relies on resources that are not prone to corruption by market dynamics. Either due to these companies always modifying their resources, or that the nature of the resources makes it impossible to corrupt.

Dynamic capabilities

There are traces of dynamic capabilities in all four cases. Every company shows signs of changing their existing resource base or by creating new resources in the form of new product development. The interesting pattern that seems to differentiate the companies is that the dynamic capabilities are always in motion in *Mediahouse* and *Software*. Their resource configuration is never static and they do not rely on simply one particular resource in order to be competitive. *Biotech* and *Engineering* both seem slower in the sense that their resource configuration is not modified continuously, but rather modified when their existing resources no longer possess any value. As illustrated in the analysis section, *Biotech* started to develop a new product after the patents expired and after the changes of customer preference made their superior quality obsolete. *Engineering* did not start to deploy their resources (workforces) to other customers before their big contract with *Customer X* was terminated. *Mediahouse* on the other hand is making new products continuously to not let the global competitors enter the market with a better solution and thus gaining market shares. *Software* is continuously modify their resource base by encouraging their employees to spend time on obtaining new knowledge and to adapt to the new technological advances.

Seizing opportunities

The ability to sense an opportunity was very common in every case. No informant had any difficulties talking about potential opportunities for their companies. The ability to seize these opportunities on the other hand is something that appears to differ slightly among the cases. *Biotech* is indeed in the process of seizing an opportunity in the form of a new product. Their success with this product is yet to be determined and therefore is this dimension marked as *partly*. Both of the informants of *Engineering* talked about multiple opportunities for the companies such as 3D printing and new machines for the food industry. However, *Engineering* has not managed to seize these opportunities and convert them into something valuable, which makes their ability to sense them unimportant. For example, *Engineering* had

for the last years pursued 3D printing as a potential for a new business idea but they did not manage to convert this opportunity into action so the project was discarded. *Engineering* have not managed to seize any significant opportunities that can help them re-gain there competitive advantage. Both companies with a competitive advantage are able to continuously seize the opportunities presented in the market. These opportunities might not be giant game changer but small opportunities that reinforce their position in the market. *Mediahouse* is seizing opportunities related to customer preferences and *Software* seizes the opportunity for a professional edge by emphasising learning among their employees.

Sense and manage threats

One of the most interesting findings of this research is that both *Biotech* and *Engineering* lost their previously held competitive advantage to a single threat that occurred. I argue that this shows how little it takes for a competitive advantage to be competed away in a dynamic market. As discussed in the analysis section, neither of the two companies predicted the threats that corrupted their resources which again implies that this managerial ability is of high importance. *Mediahouse* recognised the potential threats in their market and managed them by continuously improving their existing products and to develop new services for the users and customers. What is interesting is that *Software* was not able to point out many specific threats that the company could face. *Software2* said that one threat he could think of was headhunters trying to recruit their employees. The headhunters were seldom successful due to the career model and development program of *Software* which made it more desirable for the employees to stay with them. *Software1* believed that they were sort of managing or safeguarding themselves from threats by always changing themselves and being in motion. In that way, no market forces could have any significant impact on the company.

6.0. Discussion

In this chapter I will discuss the findings from chapter 6 in regards to the relevant theory. The discussion will first focus on answering the research question:

"*What are the sources of competitive advantage in a business environment characterized by high dynamism, and how is the competitive advantage sustained in such markets?"*

Later, I will discuss the findings in regards to the conceptual model proposed in chapter 2.

6.1. Competitive advantage and sustained competitive advantage

One of the main findings of this study is that the key for competitive advantage differs whether the advantage is sustained or simply temporary. In this study, I was able to investigate why the firms which had a disadvantage lost their previously held advantage. In both cases, it appears as they were dependant on single resources in order to achieve above average performance. Although this strategy might work in a static or moderate market, the market dynamism will eventually corrupt these resources making them obsolete. It seems like both *Biotech* and *Engineering* operated as they were competing in a more static market, thus failing to identify the threats that a dynamic market presents. This finding supports the existing argument of the dynamic capabilities theory that the resource-based view is not applicable or appropriate to explain the sources of competitive advantage in dynamic markets.

This finding also suggests that VRIN-resources is the source to competitive advantages, at least temporarily. This also applies in dynamic markets but the level of dynamism will reduce the time of this temporary advantage. In order to achieve a sustained competitive advantage I found evidence for the importance of modifying the company's resource base, thus supporting the dynamic capabilities theory. However, it is important to notice that the source of competitive advantage in any case relies in fact in the resources, but the resources must be modified and/or created by the dynamic capabilities.

Both cases that had a competitive advantage appears to have been able to sustain that advantage for a long period of time. There seems to be similarities between the two companies that highlights the same reason for their competitive situation. One thing that is consistent amongst the two cases is that neither company allow themselves to be static. The

internal routines and processes are always in motion and ready to respond to the market dynamics. Even though *Mediahous*e benefits from first mover advantage they have managed to sustain this resource by firstly, constantly changing their product offering in order to become more user friendly, and secondly, seizing the opportunities in the market by developing new products that meet the changes in customer preferences. *Biotech* is also developing new products at the moment which would suggest that their competitive situation would be more similar to *Mediahouse*. The difference is that these processes happen continuously in *Mediahouse,* whereas as in *Biotech* this did not happen until after the corruption of their previously VRIN-resource. This suggests that there is a time aspect to consider when analysing competitive advantage in dynamic markets. Eisenhardt and Martin (2000) argues that the market 'winners' are the ones who deploy their dynamic capabilities sooner and more fortuitously than their competitors. The argument seems to find support in this study at least in regards to 'sooner' since there is not possible to evaluate the fortuitousness of the product innovation of *Biotech* yet.

Another interesting find is that both *Biotech* and *Engineering* fins themselves in a competitive disadvantage due to one single threat. This suggests that the competitive situation is quite fragile in dynamic markets and one single threat can result in a long-term disadvantage. The fact that one threat can destroy the competitive advantage strengthens the argument that companies need to extend and modify their resource configuration in order not to rely on one single VRIN-resource. I find evidence of differences between the two groups of cases in the way that unlike the group experiencing a disadvantage, the group with an advantage does not rely on one single VRIN-resource. Even though *Mediahouse* has the possibility to milk their first mover advantage resource, they recognise that the market dynamism will corrupt that resource eventually. In a sense, the managers have a more long-term mindset and does not simply consider the short-term benefits. This ability, which can also be defined as a resource, can be found in *Software* where the informants repeatedly mentioned that they had a long-term mindset rather than a short-term mindset which most of their competitors had. I was not able to characterize the mindset of the cases with a disadvantage but their lack of defensive actions towards the corruption of their resources suggests that the mindset is in fact short-term. Alternatively, that they failed to recognise the seriousness of the market dynamics.

It is important to notice that it is not simply the group with the competitive advantage that possesses dynamic capabilities. *Biotech* is deploying their dynamic capabilities in the form of new product development and *Engineering* is slowly modifying their workforce in order to

become profitable again. Dynamic capabilities in its raw essence, modifying and extending their resource configuration, is an ability you would expect all companies to have. Again, it is not impossible to assume that every company is able change in one way or another. However, this change might not be successful in the sense that it is not creating any new value. The definition of dynamic capabilities should perhaps include 'successfully' as a criteria in order to be recognised as a dynamic capabilities. Even so, companies might deploy dynamic capabilities successfully and still be facing a competitive disadvantage. This is supported by *Engineering* which is slowly modifying their resource configuration and is finally achieving competitive parity. This deployment can indeed be characterized as successful, which would disrupt the argument that dynamic capabilities are the source of competitive advantage in dynamic markets. However, this suggest that dynamic capabilities are not only necessary to achieve competitive advantage, but necessary to simply survive in the dynamic market. The rapidness of which the dynamic capabilities are deployed is a better factor in determining the respective company's competitive performance. As mentioned, *Biotech* is also deploying dynamic capabilities but the successfulness of this deployment cannot yet be evaluated. The factor which seems to differentiate the two groups are not the general deployment of dynamic capabilities, but rather the time dimension of when the dynamic capabilities are deployed. Whereas there is evidence of dynamic capabilities in all four cases, it is only in the group with a competitive advantage that deploys these dynamic capabilities continuously. The deployment of the dynamic capabilities in the group with a disadvantage did not happen until after the previous advantage was lost. This study therefore suggest that the source of competitive advantage in dynamic markets lies in the VRIN-attributes. The source of sustained competitive advantage lies not in the deployment of dynamic capabilities itself, but in the ***continuous*** deployment of the dynamic capabilities.

6.2. Conceptual model

I argue that this study partly supports the conceptual model developed in chapter 2. The relations described in the model seems to fit the relations that actually exists in a dynamic market. The model appears to be fitting in describing the series of events that companies are exposed to, but perhaps more illustratively for companies with a competitive disadvantage. The two cases, *Biotech* and *Engineering* seems to support these relations even though the attributes of their new resources cannot yet be measured. The model is in line with the theory

that a company achieve a sustained competitive advantage through series of temporary advantage. I believe that the model illustrate the relations that are in place in a dynamic market and explains the series of events companies in such markets face. A weakness of the model is that it does not properly explain the series of events that companies with a competitive advantage face. In other words, it neglects or fails to emphasise the time aspect of these relations and events. As it appears now, these events happen sequentially. This appears to be the case with companies facing a disadvantage, or companies that experience an extensive time period between temporary advantages, but the events happen more simultaneously among the companies with a sustained advantage. The model is in fact not wrong in describing sustained competitive advantage because all of the relations and events does in fact take place. However, since it does not emphasise the 'continuous aspect' of which these advantageous companies operates, the model does not have full illustrative power. I therefore believe that the model needs to be reworked in order to emphasise this aspect.

7.0. Conclusion and implications

In this chapter I will provide a conclusion of my research project. Later, I will describe the implications and contributions both theoretically and practically. I will then continue with the limitations of this study before I end with a suggestion for further research.

7.1. Conclusion

I have in this research project investigated the phenomenon competitive advantage in dynamic markets. I have used a qualitative research approach with a holistic multiple-case design. There was a total of four cases participating, each providing two informants resulting in eight informants in total. Two cases experienced a competitive disadvantage while two experienced a competitive advantage. The main theories used were the resource-based view and an extension of this theory, the dynamic capabilities theory.

The findings suggest that a temporary competitive advantage in dynamic markets is achieved through the company's VRIN-resources. As opposed to static markets, the market dynamism will eventually corrupt the VRIN-attributes of a resource and the competitive advantage will be lost. This finding supports the argument that the resource-based view have limited explanatory power in dynamic markets. The sustainability of the competitive advantage is achieved through the continuous deployments of dynamic capabilities. That is, to continuously modify or extend the resource configuration of which the competitive advantage relies on. This study also supports the argument that first mover advantage is amplified in markets with increasing returns of adoption. It is therefore necessary to notice the important managerial skill to sense seize opportunities in the markets before the competitors. I can also conclude that the competitive advantage in a dynamic market is very fragile and a single threat can result in losing this advantage. The companies should not rely on the same VRIN-attributes for an extended period of time in order to reduce the potential impact threats has on their competitive situation.

7.2. Theoretical implication

This study contributes in establishing a clear link between the resource-based view and the dynamic capabilities theory, and helps academics and practitioners to understand this relationship. The research project also confirms the existent theory that dynamic capabilities appears to be of vitally importance in achieving sustained competitive advantage in dynamic markets. The literature on dynamic capabilities have not clearly differentiated between competitive advantage and sustained competitive advantage. This research project suggest that it is appropriate to differentiate between the two and that the resource-based view is applicable to explain temporary advantages, and the dynamic capabilities theory explains sustained competitive advantage. This study also presents the time as an important factor to consider when examining dynamic markets. It also suggests that there is a cycle of advantages and disadvantages and that the time period between the advantages can be reduced by the rapid deployment of dynamic capabilities. This study also contributes in the sense that it highlights that every company most likely possesses some form of dynamic capabilities, but it is the degree of rapidness of which the dynamic capabilities are deployed that explains the competitive situation. The conceptual model finds partly support in this study. It works well in describing the relations in dynamic markets but does not illustrate the time factor in a satisfactory manner. I argue that the conceptual model works as a starting point for developing a more realistic model that includes the important time aspect identified in this study.

7.3. Practical implications

I argue that this study offers a contribution to the practitioners in understanding the relations and which important factors to consider when competing in a dynamic market. Firstly, practitioners should define the market in regards to the level of dynamism. The level of market dynamism indicates how rapidly companies must deploy their dynamic capabilities and change their resource configuration. The employees must therefore be continuously willing to change and adapt to market forces. This task is not simple for practitioners but managers should try to integrate this willingness into the company culture. Managers should not rely solely on one resource if competing in a dynamic market since the dynamism will eventually corrupt this resource. It would be wiser to spread the risk by expanding their resource configuration. The importance of market opportunities and threats are shown in this

study and managers should continuously scan the market if they want to maintain or claim the competitive advantage. Continuously changing the company and resource configurations is not an easy task, but if it was, then there would be a competitive parity amongst all competitors. The ability to always be in motion is what differentiates the best from the rest and managers should try to increase this ability in their company.

7.4. Limitations

This study contains the traditional limitations of a qualitative research approach. The findings cannot be generalized to a group of companies or to be appropriate in every industry. The choice of doing a multiple-case design rather than a single-case design decreases the likelihood for the findings to be unique to one company. My lack of experience in being a researcher opens up for criticism in regards to the validity of the research, particularly internal validity, and I do acknowledge that this can be a limitation. I have however, tried to make methodological choices which benefits unexperienced researchers, such as the use of a structured interview guide, and increasing transparency by describing the research processes and choices thoroughly.

This research project was conducted in Norway and constitutes of only Norwegian companies. Therefore, the findings cannot be expected to apply to companies from other countries without further investigation.

Mediahouse was a highly unique case with uncommon characteristic in the sense of increased returns of adoption and therefore not a perfect representative case in regards to generalizing to other companies. However, their increased returns of adoption did show the importance of seizing opportunities and achieving first mover advantage. Even so, this type of market is not very common. In regards to dynamic capabilities, I believe that this factor did not impose any limitation.

The aim of the sampling selection was to pick companies that were systematically worse than their competitors in order to increase the potential for significant findings. It can be argued that the two companies, *Biotech* and *Engineering*, are not in fact systematically worse but rather in between two temporary advantages. This argument relies on these companies continuing their trend and eventually gain a competitive advantage in the future. That factor is not possible for me to measure due to the natural time limitations of a master thesis.

7.5. Suggestion for further research

In order to increase the generalizability of the findings a replication of this study would be interesting. The replication could contain the same industries or different dynamic industries. From a theoretical point of view, it would also be interesting to control for market dynamism. That is, to investigate the differences in a static and dynamic market.

I would also suggest doing a longitudinal case study in order to investigate the factors which was not possible due to the time limits of the maser thesis. The cycle of temporary advantages and disadvantages found here should be investigated further in order to develop and contribute to the existing theory.

A quantitative research approach in the form of survey can help contributing to generalizability of these findings. However, the researcher must be aware of certain pitfalls and drawbacks a survey might have when researching this particular phenomenon. As mentioned, I personally experienced some misunderstanding with the different terms used in the interviews. For example the term resource was commonly misinterpreted as simply ‘money’ or ‘employees’, whereas in the theory, resource is defined as any tangible and intangible asset which has value. This definition needs to carefully explained in the survey.

References

Bain, J. S. (1956). *Barriers to new competition, their character and consequences in manufacturing industries*. Retrieved from

Baker, W. E., & Sinkula, J. M. (2005). Environmental marketing strategy and firm performance: Effects on new product performance and market share. *Journal of the Academy of Marketing Science, 33*(4), 461-475. doi:10.1177/0092070305276119

Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management, 17*(1), 99-120. doi:Doi 10.1177/014920639101700108

Barney, J. B. (2011). *Gaining and sustaining competitive advantage* (4th ed. ed.). Boston: Pearson.

Becker, S., Bryman, A., & Ferguson, H. (2012). *Understanding research for social policy and social work: themes, methods and approaches*: Policy Press.

Davidsen, B.-I. (2004). Kritisk realisme og økonomisk-vitenskapelig arbeid. *Norsk økonomisk tidsskrift, 118*, 62-76.

Drnevich, P. L., & Kriauciunas, A. P. (2011). Clarifying the Conditions and Limits of the Contributions of Ordinary and Dynamic Capabilities to Relative Firm Performance. *Strategic Management Journal, 32*(3), 254-279. doi:10.1002/smj.882

Dubois, A., & Gadde, L.-E. (2002). Systematic combining: an abductive approach to case research. *Journal of Business Research, 55*(7), 553-560.

Dyer, J. H., & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of management review, 23*(4), 660-679.

Easton, G. (1995). *Case research as a methodology for industrial networks: a realist apologia.* Paper presented at the IMP Conference (11th).

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review, 14*(4), 532-550.

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal, 21*(10-11), 1105-1121. doi:Doi 10.1002/1097-0266(200010/11)21:10/11<1105::Aid-Smj133>3.0.Co;2-E

Fang, E., & Zou, S. M. (2009). Antecedents and consequences of marketing dynamic capabilities in international joint ventures. *Journal of International Business Studies, 40*(5), 742-761. doi:10.1057/jibs.2008.96

Gallagher, S. (1992). *Hermeneutics and education*: SUNY press.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research, 2*(163-194), 105.

Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D., & Winter, S. G. (2009). *Dynamic capabilities: Understanding strategic change in organizations*: John Wiley & Sons.

Hill, C., Jones, G., & Schilling, M. (2014). *Strategic management: theory: an integrated approach*: Cengage Learning.

Hofer, B. K., & Pintrich, P. R. (2004). *Personal epistemology: The psychology of beliefs about knowledge and knowing*: Psychology Press.

Honderich, T. (1995). The Oxford Dictionary of Philosophy: Oxford, United Kingdom: Oxford University Press.

Johnson, R. B. (1997). Examining the validity structure of qualitative research. *Education, 118*(2), 282-293.

King, N., & Horrocks, C. (2010). *Interviews in qualitative research*: Sage.

Mackay, N. (1997). Constructivism and the logic of explanation. *Journal of Constructivist Psychology, 10*(4), 339-361.

Marshall, C., & Rossman, G. B. (1989). Designing qualitative research . Newberry Park. *Cal: Sage Publications*.

Martin, J. A., & Eisenhardt, K. M. (2010). Rewiring: Cross-business-unit collaborations in multibusiness organizations. *Academy of Management Journal, 53*(2), 265-301.

Mason, E. S. (1939). Price and production policies of large-scale enterprise. *The American Economic Review, 29*(1), 61-74.

Meyer, C. B. (2001). A case in case study methodology. *Field methods, 13*(4), 329-352.

Miller, W. L., & Crabtree, B. F. (1992). Primary care research: A multimethod typology and qualitative road map.

Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International journal of qualitative methods, 1*(2), 13-22.

Penrose, E. T. (1959). *The theory of the growth of the firm*. New York,: Wiley.

Peteraf, M. A. (1993). The Cornerstones of Competitive Advantage - a Resource-Based View. *Strategic Management Journal, 14*(3), 179-191. doi:DOI 10.1002/smj.4250140303

Porter, M. E. (1980). *Competitive strategy : techniques for analyzing industries and competitors*. New York: Free Press.

Porter, M. E. (1990). *The competitive advantage of nations*. New York: Free Press.

Priem, R. L., & Butler, J. E. (2001). Is the resource-based "view" a useful perspective for strategic management research? *Academy of management review, 26*(1), 22-40.

Priest, H., Roberts, P., & Woods, L. (2002). An overview of three different approaches to the interpretation of qualitative data. Part 1: Theoretical issues. *Nurse researcher, 10*(1), 30-42.

Rolfe, G. (2006). Validity, trustworthiness and rigour: quality and the idea of qualitative research. *Journal of advanced nursing, 53*(3), 304-310.

Ryen, A. (2002). *Det kvalitative intervjuet: fra vitenskapsteori til feltarbeid*: Fagbokforlaget.

Savin-Baden, M., & Major, C. H. (2013). *Qualitative research: The essential guide to theory and practice*: Routledge.

Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry. *Handbook of qualitative research, 2*(2), 189-213.

Spanos, Y. E., & Lioukas, S. (2001). An examination into the causal logic of rent generation: Contrasting Porter's competitive strategy framework and the resource-based perspective. *Strategic Management Journal, 22*(10), 907-934. doi:DOI 10.1002/smj.174

Strauss, A., & Corbin, J. (1998). Basics of qualitative research: Grounded theory procedures and techniques. *Newberry Park: Sage*.

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319-1350. doi:10.1002/smj.640

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509-533. doi:Doi 10.1002/(Sici)1097-0266(199708)18:7<509::Aid-Smj882>3.0.Co;2-Z

Thagaard, T. (2003). *Systematikk og innlevelse: en innføring i kvalitativ metode* (Vol. 2): Fagbokforlaget Bergen.

Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International journal of management reviews, 9*(1), 31-51.

Wang, G. P., Dou, W. Y., Zhu, W. C., & Zhou, N. (2015). The effects of firm capabilities on external collaboration and performance: The moderating role of market turbulence. *Journal of Business Research, 68*(9), 1928-1936. doi:10.1016/j.jbusres.2015.01.002

Wernerfelt, B. (1984). A Resource-Based View of the Firm. *Strategic Management Journal, 5*(2), 171-180. doi:DOI 10.1002/smj.4250050207

Yin, R. K. (2009). Case study research design and methods (Fourth.): London: SAGE Publications Ltd.

Yin, R. K. (2013). *Case study research: Design and methods*: Sage publications.

Appendices

Appendix A: Receipt from NSD

Eskil Le Bruyn Goldeng
Institutt for industriell økonomi, strategi og statsvitenskap Handelshøgskolen Høgskolen i Sørøst-Norge

3511 HØNEFOSS

Vår dato: 20.02.2017 Vår ref: 52248 / 3 / ASF Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 17.01.2017. Meldingen gjelder prosjektet:

52248	*Competitive Advantage in dynamic markets*
Behandlingsansvarlig	*Høgskolen i Sørøst-Norge, ved institusjonens øverste leder*
Daglig ansvarlig	*Eskil Le Bruyn Goldeng*
Student	*Knut Philip Thjømøe*

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/meldeplikt/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://pvo.nsd.no/prosjekt.

Personvernombudet vil ved prosjektets avslutning, 30.06.2017, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Kjersti Haugstvedt

Amalie Statland Fantoft

Kontaktperson: Amalie Statland Fantoft tlf: 55 58 36 41

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

NSD – Norsk senter for forskningsdata AS Harald Hårfagres gate 29 Tel: +47-55 58 21 17 nsd@nsd.no Org.nr. 985 321 884
NSD – Norwegian Centre for Research Data NO-5007 Bergen, NORWAY Faks: +47-55 58 96 50 www.nsd.no

Appendix B: Interview guide

1. Introduction

Begin by introducing myself and the purpose of this research project. Inform that the interview will be tape recorded and that this will be deleted after the research project has ended. Make sure the informant gives his/her consent about this. Inform that the data will be anonymised in the final report.

2. Preliminary questions

2.1. What achievement professionally are you the most proud of?

2.1.1. Why does exactly this achievement that make you the most proud?

2.1.2. What was the reason for this achievement.

3. General description of the company

3.1. How would you describe the company?

3.1.2. Which products do you sell?

3.2.2. Who are your most important customers?

4. Describe the market

4.1. Could you describe the market you are operating in?

4.2. Is the market growing, stable or decreasing?

4.3. How is your growth compared to the rest of the market?

4.4. What is your ambitions in regards to growth?

4.4.1. How are you going to manage that?

4.5. What characterizes your customers?

4.5.1. What are your customers' preferences?

4.5.2. How do your customers behave?

4.5.3. Do your customer's needs and preferences change?

If yes → How often do they change?

→ In what way do they change?

→ What kind of requirements does this make for you as a company?

If no → Why do you think the preferences doesn't change?

4.5.4. How often do the customer buy products?

4.5.5. How loyal is the customer?

4.5.6. Are there any switching costs for the customer?

4.5.7. How do you manage difficult customers?

5. Describe the industry

5.1. Can you describe the industry you are operating in?

5.1.1. How many competitors are there? Which?

5.1.2. Is it easy for new competitors to establish themselves in the industry?

5.1.3. How will you describe the competitive intensity? In what way?

5.1.4. Is the industry characterized by a high degree of innovation and/or technological advances?

5.1.5. Does the industry require the company to constantly change in order to be competitive?

If yes → How do you have to change? In what way?

If no → Why do you not need to change?

5.2. How do you think the competitive environment will change over the next five years?

6. Describe the company's competitive situation and strategy.

6.1. Can you describe the company's strategy and vision?

6.2. What is the main focus of the company at this time? Profitability? Growth? Market share?

6.3. How do you perform compared to your competitors?

6.3.1. How big is your market share compared to your competitors?

6.3.2. How do you perform in regards to profitability compared to your competitors?

If the company perform better than their competitors:

6.3. Why do you perform better than your competitors?

6.4. What do your company have that your competitors do not have?

6.5. What resources are the most important for your company?

Try to characterize them after the VRIN-attributes.

6.5.1. Why haven't your competitors obtained the same resources as you have or other resources that offers the same utility?

If the company performs worse than their competitors:

6.6. Why do you perform worse than your competitors?

6.7. What do your competitors have that you do not have?

6.7.1. Why have you not obtained the same resources that your competitors have or other resources which offers the same utility?

6.8. Which resources are the most important for your company?

Try to characterize them after the VRIN-attributes.

7. The company's ability to change

7.1. Are you concerned with monitoring the market or be looking for potential opportunities and/or threats that may arise? How is this done?

7.1.1. Can you give some examples on opportunities that has arisen in the market?

7.2. How good are you at seizing this opportunities that occur?

7.2.1. How do you seize these opportunities? Has this resulted in your company needing to change in any way?

7.3. Can you give some examples of threats that has arisen in the market?

7.3.1. How have you as a company responded to these threats?

7.3.2. What would happen if you didn't respond in the way you did??

7.4. Have you experienced that external changes have made your resource less or not valuable at all?

7.4.1 How did you respond too this?

7.5. Is it necessary to change your resource configuration in order to be competitive?

7.5.1. How do you change your resource configuration?

7.5.3. Do you change existing resources?

7.5.3. Do you obtain new resources? Could you give some examples? Do you perform better or worse than your competitors at this?

If innovation haven't been discussed.

7.6. Do you focus at innovation?

7.7. In what way do you innovate?

7.8. Is it a high level of innovation in your industry in general?

7.8.1. Do you perform better or worse than your competitors in innovation? Could you come with some examples?

8. Summary and closure

Summarize the interview quickly. Ask the informant if there are anything he/she feels that I have forgot to ask about or if there are any additional information he/she feels I might have use for. Ask the informant if he/she has any questions. Thank for and end the interview.

Appendix C: Coding list