Effects of Industrial Organization Perspective and Resource-Based View on Firm Performance: The Moderating Role of Industry Characteristics

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Preface

This master thesis is conducted as a part of the curriculum in a master's degree in Business Administration at Buskerud and Vestfold University College. Our interest in the theories of Industrial Organization and Resource-Based View originated from a Strategy course we participated in during the fall of 2012. The purpose of this thesis is to increase understanding of factors and resources that contribute to firm performance, and how firms within an industry can gain a competitive advantage. Our first thought was to address this issue in several industries and compare the results, but due to limitations, we had to settle for a single industry. However, we have focused on making our study generalizable so that our findings can be applied to other industries with similar traits.

We want to thank Associate Professor Boge Gulbrandsen and Professor Kåre Sandvik for excellent guidance throughout the project. We appreciate the good discussions, the constructive feedback, and their enthusiasm and interest in our master thesis. We would also like to thank Gulbrandsen for the strategy course that inspired us to select this specific topic. Further, we would like to thank Sandvik, Reisepol and Co-owner of Mi Pro; Pål Sesseng for distribution of our survey. Additionally, we want to thank hotel owner Tord Moe Laeskogen at Sundvolden Hotel and Assistant Director Birgit Kjuus at Thon Hotel Opera for helping us with pretesting and adjusting our survey, making it relevant for the hotel industry.

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Abstract

The field of strategic management is dominated by two theories that are based on different fundamental assumptions. These are Porter's (1980) theory of Industrial Organization (PIO) and Barney's (1991) Resource-Based View (RBV). While industry factors determine competitive advantage in the PIO perspective, a firm's resources determine competitive advantage according to RBV. Theoretical and empirical evidence suggest that both industry and firm factors are important to explain firm performance. However, the relative importance of industry versus firm factors is not clarified in the literature. In this master thesis we review literature addressing the competitive and complementary views of PIO and RBV. Further, we introduce a gap in the theoretical and empirical literature concerning resource characteristics. Based on this we develop hypotheses and a research model that combine the PIO and the RBV view, and suggest that resource heterogeneity and resource immobility may act as moderating variables. By testing these hypotheses, we will address the following research question:

To what degree do PIO and RBV predictions explain firm performance, and how do an industry's resource characteristics moderate this relationship?

To examine this research question, we developed a survey that was distributed to the Norwegian hotel industry. Our data collection and analysis revealed that both PIO and RBV predictions explain firm performance. Additionally, we found that resource heterogeneity, defined as a firm's critical success factors, has a positive moderating effect on the relationship between RBV and firm performance and PIO and firm performance. This finding is in accordance with RBV theory but in conflict with the fundamental assumption in PIO. Implications based on this interesting finding will be addressed.

The main contribution of this thesis is to reveal how firm performance is affected by both internal and external factors. Our study reveals that it is important to focus on both aspects to gain a superior firm performance within an industry. Especially in industries characterized by resource heterogeneity, this study contributes to the understanding of a phenomenon lacking sufficient empirical testing.

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1. Introduction

Competitive advantage relative to competitors is considered to be preferable for firms striving for an economical profit. Barney (1991:102) suggests that a firm holds competitive advantage when "*[...] a firm is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors*". Further, a firm has a sustained competitive advantage if other firms find it difficult to duplicate the strategy leading to a competitive advantage (Barney 1991). These definitions of competitive advantage and sustained competitive advantage indicate that strategy is an important variable, influencing both competitive advantage and firm performance. According to Rumelt (1991), strategy is about differentiating a firm from its competitors. To maintain a competitive advantage within an industry the firm has to focus on renewing resources so that the products hold value even if changes outside the firm may occur (Rumelt 1991).

Porter's Industrial organization (PIO) and the Resource-Based View (RBV) have been the dominating perspectives in the field of strategic management the last decades. These perspectives have traditionally been viewed as competitive regarding the source of sustained competitive advantage (Spanos & Lioukas 2001). Porter (1980) focuses on competitive advantage through environmental conditions and industrial attributes. According to the PIO perspective, resources are considered homogeneous and mobile. Homogeneous capabilities can be defined as "*[...] common to the industry, nonidiosyncratic/not specific to the firm, and relatively undifferentiated from those of a firm's competitors*" (Drnevich & Kriauciunas, 2011:255). The RBV perspective, on the other hand, focuses on firm attributes and considers resources as heterogeneous and immobile (Barney 1991). Based on Amit & Schoemaker (1993) and Teece, Picano & Schuen (1997), Drnevich & Kriaciunas (2011:255) define heterogeneous capabilities as "*[...] unique, customized, idiosyncratic, and/or specific to a firm*". According to Barney (1997), firms can gain a competitive advantage through resources that are valuable, rare, inimitable, and well organized (VRIO-criteria). This differs from the PIO perspective, where resources are not considered to be a competitive factor. Because homogeneity and heterogeneity, as well as mobility and immobility are contradictory, the perspectives are often considered competitive.

Even though the fundamental ideas of PIO and RBV seem to be competitive, researchers have also discussed whether the theories should be considered complementary. Spanos &

Lioukas (2001) examine the relative impact of industry versus firm-specific factors on performance, and conclude that both perspectives are important for firm performance, but explain different dimensions. According to Spanos & Lioukas (2001) the perspectives have to be complementary if they are to contribute to firm success. They suggest that one way to combine the perspectives is by analyzing a firm's strengths, weaknesses, opportunities and threats (SWOT). Strengths and weaknesses are elements from RBV, while opportunities and threats are important factors in PIO. Other recent studies examine the complementarities of PIO and RBV also conclude that the perspectives indeed are complementary (Nham & Hoang 2011, Rivard, Raymond & Verrault 2006, Tuan & Mai 2012). According to Spanos & Lioukas (2001), the sources of sustained above average firm performance are equivocal, and the relative importance of industry factors versus firm resources is therefore not clarified in the literature. This issue encourages further research on the subject. In the following sections we present our research question in Section 1.1, and our literature review in Section 1.2. We end the introduction by presenting the scope of our thesis in Section 1.3.

1.1. Research Question

PIO explains how external factors affect firm performance, while RBV focuses on the effects of internal factors. Therefore, in industries with strong industry forces it is likely that PIO will explain a larger proportion of firm performance than RBV. Although an industry is characterized by a competitive environment, the Resource-Based View cannot be totally excluded as firms in all types of industries consist of resources to a certain degree. The opposite applies to industries characterized by unique resources. The external factors cannot totally be excluded as it is the interaction between the resources and industry that determines firm performance. The purpose of this discussion is to clarify that all types of industries have a form of competition and all firms rely on resources to a certain degree. A comprehensive overview of both external and internal factors is essential when explaining firm performance.

According to the fundamental assumptions in PIO, resources are considered homogeneous and mobile, which implies that all of the firms within an industry can develop or acquire the resources they need to neutralize competitive advantage. Thus, in such industries it is difficult to compete based on internal resources as these can only make a short-term impact, and the industry forces therefore determine firm performance. PIO predictions are therefore highly relevant in industries characterized by resource homogeneity and mobility.

RBV theory, on the other hand, argues that resources are heterogeneous and immobile, and therefore the source of competitive advantage. This aspect implies that resources vary across firms because they are unique and/or difficult to acquire, and therefore differentiate firms. If an industry's resources are characterized as both heterogeneous and immobile, these resources may lead to a competitive advantage and superior firm performance (Barney 1991). RBV predictions are therefore more relevant in industries characterized by resource heterogeneity and immobility, as internal factors determine firm performance.

Different types of industries are characterized by different types of traits, and few industries are likely to be determined by only external or internal factors. It is more likely that in most industries both external and internal factors affect firm performance, making both PIO and RBV predictions applicable to explain firm performance. As the assumptions in terms of resource characteristics are what distinguish the theories from one another, the effect of each prediction may depend on the degree of resource heterogeneity and immobility in the industry. In this master thesis we will explore how each perspective affects firm performance.

Additionally, we will examine if firm performance increases or decreased if resource heterogeneity or resource immobility moderates the relationship between PIO/RBV and firm performance. Thus, we will address the following research question:

To what degree do PIO and RBV predictions explain firm performance, and how do an industry's resource characteristics moderate this relationship?

1.2. Literature Search

To address the research question above, we conducted a thorough literature search concerning PIO and RBV, as well as literature relevant for how these theories can be interpreted in interaction with each other. The subject for this master thesis was inspired by Spanos & Lioukas' (2001) article *"An examination into the causal logic of rent generation: Contrasting Porter's competitive strategy framework and the resource-based perspective".* In this article, Spanos & Lioukas (2001) discuss the two most dominant theories within the field of strategic management, and the theories are argued to be complementary to explain firm performance. In our literature search we tried to find articles studying the same topic, and articles referring to Spanos & Liokuas' (2001) study were therefore of importance. Web of Science and Google Scholar were helpful tools in our search for key words and articles. Terms used for our research were: *IO, RBV, industrial organization, resource based view, industry, environment, resources, firm assets, strategy, heterogeneity, critical success factors, immobility, mobility, firm performance, competitive advantage* and more. Most of these terms were used in combination to avoid mismatched samples. We also searched in acknowledged journals like *Strategic Management Journal*, *Academy of Management Journal*, *Journal of Organizational Behavior* and *Harvard Business Review*.

Relevant empirical literature is presented in a matrix (Appendix A). This matrix consists of the most important articles in our literature search and provides an overview of definitions, constructs and the relationships between constructs. The main article that we base our master thesis on is Spanos & Lioukas (2001). This is an acknowledged and well sited article that discusses our field of interest and is therefore of high importance in our study. Additionally, Drnevich & Kriauciunas (2011), Powell (1996), Rivard et. al. (2006), Rumelt (1991) and Schmalansee (1985) present important empirical findings related to our field of study. Drnevich & Kriauciunas (2011) study the relationship between capabilities/resources and firm performance using heterogeneity and environmental dynamism as moderators. Powell (1996), Rumelt (1991) and Schmalansee (1985) examine how much of the variance in firm performance is explained by industry factors. Rivard et. al. (2006) developed a model based on Spanos & Liokuas (2001), with adjustments targeting the IT industry. Their variables are specific for the IT industry, indicating that the model can be adapted towards specific industries. When developing measurement for our variables, scales were adopted from Galbreath & Galvin (2008), O'Cass & Ngo (2007), and Spanos & Lioukas (2001).

1.3. The scope of this Thesis

The scope of this thesis is to address the PIO and RBV perspectives, in order to increase the understanding of how firms can achieve a competitive advantage and a superior firm performance relative to competitors. In our theoretical framework in Chapter 2, we review literature addressing competitive and complementary views on PIO and RBV to generate insight to the importance of industry factors and firm resources. In addition to focusing on whether the perspectives should be considered competitive or complementary, we discuss why and how resource heterogeneity and resource immobility may moderate the relationships between PIO/RBV and firm performance. This is in accordance with Galbreath & Galvin's (2001) who encourage future strategic management scholars to focus their attention on moderating variables in the business environment, rather than just firm resources versus industry structure. Chapter 3 presents a research model and hypotheses based on our research question and theoretical framework. In the following chapters, we introduce our research methods in Chapter 4 and an analysis of our data collection in Chapter 5. In Chapter 6 we discuss findings and implications.

2. Theoretical Framework

We present the fundamental ideas of Porter's Industrial Organization (PIO) in Section 2.1 and the Resource-Based View (RBV) in Section 2.2. Further, we discuss competitive and complementary views of the theories in Section 2.3. We end our theoretical framework with concluding discussions in Section 2.4.

2.1. Porter's Industrial Organization Perspective

The traditional Industrial Organization (Bain/Mason Paradigm) perspective consists of a structure, conduct and performance (SCP) model that was developed by Bain and Mason in the 1960's (Porter 1981). This paradigm originally intended to stimulate social welfare by describing conditions where perfect competition exists, and initiate competition enhancing activities where there is an absence of such competition (Porter 1981). Scholars within the IO tradition support this view and are primarily concerned with industry performance rather than firm performance (Spanos & Lioukas 2001). However, Porter (1980, 1981) modified the traditional Bain/Mason paradigm by focusing on factors that can provide a competitive advantage, rather than factors leading to perfect competition. Instead of focusing on how to create perfect competition, Porter turns the SCP-model upside down and focuses on how a single firm can create and sustain competitive advantage. According to Porter (1981), firms should seek an industry with few competitors, and strive to achieve monopoly profit in that industry. In our study, we want to evaluate firm performance rather than industry performance and we therefore choose to base our IO perspective on Porter's theory (PIO), and not the traditional Bain/Mason paradigm. This is in accordance with Spanos & Lioukas (2001).

2.1.1. Porter's Five Forces

In the Five Forces framework, Porter (1980) identifies specific attributes of industry structure that can threaten a company's competitive advantage. These five forces consist of threats from: 1) New entrants, 2) rivals, 3) substitutes, 4) powerful suppliers, and 5) powerful buyers (Porter 1980).

The threat of new entrants in an industry depends on present barriers to entry and expectations of existing competitors reactions to new entries (Porter 1980). If the barriers are considered low, a potential new entrant in an industry is likely to occur. Rivalry among existing competitors in an industry is recognized through tactics like price competition, advertising battles, product introductions and increased customer service or warranties (Porter 1980). Intense rivalry can be caused by many factors such as numerous or equally balanced competitors, slow industry growth, high fixed costs, lack of differentiation or high exit barriers (Porter 1980).

The threat of substitute products or services depends on how attractive alternative products are (Porter 1980). If a firm is offering products with similar functions as another firm to a similar or lower price, the firm with the substitute product will be considered a competitor. Buyers bargaining power depends on whether the buyers are able to compete, force prices down or bargain for higher quality or service (Porter 1980). The threat of suppliers is high if the supplier group is dominated by few companies and is more concentrated than the industry it sells to (Porter 1980). Further, if the products are essential for the customer's business, the switching costs are high, or the supplier poses a threat of forward integration, the supplier can be considered powerful (Porter 1980).

Industry structures change relatively slowly, but may change over time (McGahan & Porter 1997). A common reason for changes in industry factors is growth as a result of industry maturity (Porter 1980). Whether a firm is able to achieve monopoly profits depends on the mentioned industry factors that are outside the firm's control (Porter 1980). Therefore, Porter (1980) suggests that industrial factors are vital for a firm's position within an industry.

Porter (1980) assumes that firms within an industry have nearly identical strategic relevant resources and are able to acquire resources they lack. Thus, resources are viewed as homogeneous and immobile. Any attempt to develop resource heterogeneity will therefore have no long-term benefit due to high degree of mobility of strategic resources. Questions related to PIO are how firms protect themselves from industry factors, and how a firm acquires a competitive advantage in an industry where resources are homogeneous and mobile. The key to protect a firm's position within an industry is implementing a strategy that can be used as a defense against industry forces (Porter 1980). To acquire and maintain a competitive advantage, a firm needs to *"[…] perform similar activities better than rivals perform them"* (Porter 1996:62). The term Porter uses for this strategic action is operational effectiveness. Operational effectiveness will lead a firm to outperform rivals, even if the rivals have access to the same resources (Porter 1996). Porter (1980) claims that above-average performance can only be achieved by either a differentiation strategy or a low cost strategy. On the basis of Porter's predictions, firms can differentiate themselves from competitors and acquire or maintain a sustained competitive advantage through a good strategy.

2.1.2. Empirical Studies on PIO

There are several empirical studies regarding the effects industry factors have on firm performance. Spanos & Lioukas (2001) found that profitability is affected only by elements of industry structure. According to their study, competitive rivalry and bargaining power of suppliers had a direct effect on profitability, although the effect was minimal. Spanos & Lioukas (2001) found a significant indirect effect concerning the relationship between strategy, power of suppliers and profitability. Spanos & Lioukas (2001) conclude that market performance is the key to profitability and other industry effects have an indirect effect on profitability through market performance.

According to Rumelt (1991) industry factors explain somewhere between 17-20% of variance in financial performance. Schmalansee (1985) and Wernerfelt & Montgomery (1988) have comparable results as they find support for the classical focus on industry-level analysis, and conclude that industry effects explain approximately 20% of observed variance in business unit returns. Schmalansee (1985) did not explore non-industry variables in his research and has been criticized by Rumelt (1991) for not clarifying how much of the 20% is caused by stable industry effects. Rumelt (1991) finds that industry effects explain 17% of business unit returns, but only 8% of a firm's profitability is due to stable industry effects. He further explores how useful industry effects are as a unit of analysis for firm performance, and finds that strategies of individual businesses are more important than industry effects (Rumelt 1991). Powell (1996) finds that industry factors explain 20% of overall performance variance and argues that the remaining 80% is explained through firm-specific factors. According to McGahan & Porter (1997), nearly 19% of variance in profitability is determined by stable industry effects. Based on these empirical findings, we conclude that PIO explain approximately 20% of overall performance variance, indicating that a big proportion can be explained through firm-specific factors such as firm resources.

2.2. Resource-Based View

The Resource-Based View is considered as the other dominant perspective beside the Industrial Organization perspective in the field of strategic management. While a firm is defined as a *"[...] bundle of activities"* in the PIO perspective, a firm is considered as a *"[...] bundle of resources"* according to RBV (Spanos & Lioukas 2001:909). Edith Penrose was among the first scholars to introduce the importance of a resource based view in 1959, while Wernerfelt (1984) pursued this issue further and discussed how resources explain firm performance. He argues that as the product is decisive for a firm's performance, the production is reliant on the actual resources of the firm. Therefore, his theory acknowledges resources and products as *"[...] two sides of the same coin"* (Wernerfelt 1984:171). His work is based on the assumption that resources provide a competitive advantage through their importance in product market strategies.

The Resource-Based theory made its breakthrough with Barney (1991). Barney (1991) discusses Porter's (1980) five forces model and how it describes firm performance through environmental conditions and industrial attributes. He also recognizes that although the SWOT (strengths, weaknesses, opportunities and threats) framework analyzes both internal and external factors, the focus of most firms was related to opportunities and threats. According to Barney (1991) firm attributes are more important than the industrial aspect and he builds his theory on resources as decisive for a competing position. The Resource-Based View is based on the fundamental assumptions that resources that can lead to a competitive advantage are heterogeneous and immobile (Barney 1991). These assumptions are contradictory to the PIO perspective. Contradictions between PIO and RBV will be further addressed in Section 2.3.

2.2.1. The VRIO-Framework

Barney (1991) developed a framework that is essential to the Resource-Based View. According to the framework, firms have a sustained competitive advantage when their resources are valuable, rare, inimitable and non-substitutable. Further, Barney (1991) suggests that firms with a sustained competitive advantage can improve their performance.

Barney (1991) defines value through resources that enable the firm to implement strategies that improve efficiency and effectiveness. Valuable resources usually exploit opportunities and neutralize threats (Barney 1991). The question of rarity is related to possession. If a large

number of competitors possess the same resources, these resources are not considered rare and can therefore not be a source of competitive advantage (Barney 1991). To satisfy the criteria of rareness in the VRIN framework, a firm's resources have to be unique compared to competitors resources (Barney 1991). A resource can also be considered rare when the number of firms possessing the valuable resource is less than the number of firms needed to create perfect competition (Barney 1991). For a resource to provide a *sustained* competitive advantage it is important that competitors cannot copy or imitate that particular resource. Dierickx & Cool (1989) refer to three factors leading to inimitability, either separately or in combination: 1) unique history, 2) causal ambiguity, and/or 3) socially complexity. This indicates that although competing firms are in the possession of the same resources, it is not granted that they have the capabilities to exploit them in a similar manner. The last criterion in the VRIN-framework is that there is no substitute for the unique resource (Barney 1991). If other firms possess resources that are similar or provide an equivalent strategically position, there will be no sustained competitive advantage to gain (Barney 1991).

Barney's (1991) approach to RBV was criticized due to its static nature. Mahoney & Pandian (1992) argued that resources that were valuable, rare, inimitable and non-substitutable did not guarantee superior firm performance. Their understanding is that improved performance relied on a firm's capability and competence to exploit the resources in such a way that productivity was optimized (Mahoney & Pandian 1992). This was an issue that also concerned Peteraf (1993) and Henderson & Cockburn (1994). Barney (1997) recognized that his framework was lacking an exploitative factor and therefore introduced the criterion of resources being *well organized* (The "O" in VRIO). Similar to the theories of Henderson & Cockburn (1994), Mahoney & Pandian (1992), and Peteraf (1993) this criterion concerns the issue of taking full advantage of resources through organizational components (Barney 1997).

2.2.2. Empirical Studies on RBV

A study by Galbreath & Galvin (2008) concluded that firm resources are a more important determinant of performance variation than industry structure. Comparing manufacturing firms and service firms, Galbreath & Galvin (2008) further conclude that resources are 4,17 times more important than industry structure in explaining performance variation in service firms.

Spanos & Lioukas (2001) argue that firm factors can have both a direct and an indirect effect on performance. According to their hypotheses a firm can utilize its resources for better

performance through the firm strategy. Their results indicate that firm assets affect market performance directly, while they do not find support for its effect on profitability. Thus, Spanos & Lioukas (2001) suggest that the firm can achieve higher profitability through market performance implying that firm assets have an indirect effect on profitability.

Drnevich & Kriauciunas (2011) study the effect firm attributes have on performance, focusing on firm capabilities. This paper examines how ordinary and dynamic capabilities contribute to higher relative performance. Their study indicates that ordinary capabilities affect firm performance in stable environments, while dynamic capabilities are important in a changing environment. Further, Drnevich & Kriauciunas (2011) suggest that dynamic capabilities that are heterogeneous can be a source of competitive advantage and superior performance; as such resources are difficult to copy or imitate.

Bharadwaj (2000) examined the relationship between IT capabilities and firm performance. This paper is among the first in the field of testing IT capabilities as a resource leading to improved performance. Bharadwaj (2000) argues that IT competences can be complex and therefore difficult to copy. Further, his results show that these kinds of resources can be used to outperform competitors and provide superior firm performance, indicating that RBV is important when explaining variance in firm performance. However, there seems to be a lack of empirical evidence regarding how much of the variance in firm performance is explained through firm resources. This indicates that there is a need for more empirical research in this field, encouraging us to do further studies.

2.3. Competitive and Complementary Views

In this chapter we review literature that examines whether Porter's Industrial Organization perspective and the Resource-Based View should be considered competitive or complementary. In Section 2.3.1 we review competitive aspects between the perspectives, while in section 2.3.2 we discuss literature suggesting complementarity.

2.3.1 Competitive

Porter's Industrial Organization perspective is considered to have an "outside-in" perspective (Porter 1980, 1981). The purpose for a firm is to achieve monopoly profit in their industry, and whether a firm is able to do so depends on industry factors that are outside the firm's control (Porter 1980). The Resource-Based View on the other hand, has an "inside-out" perspective, in which a firm's resources can provide a competitive advantage (Barney 1991). According to Barney (1997), a firm can acquire and maintain a sustained competitive advantage if the firm's resources are considered valuable, rare, inimitable, and well organized.

The perspectives also deviate from each other in terms of strategy development. Porter's IO perspective considers a firm as a bundle of *activities* aiming to create a competitive advantage (Porter 1980). Strategies that can be used to acquire or maintain a competitive advantage are differentiation or low cost (Porter 1980). According to RBV, a firm is considered a bundle of unique *resources*, and a firm's strategy is contingent on its resources (Barney 1991).

Additionally, PIO claims that resources are considered homogeneous and mobile, suggesting that firms have the possibility to acquire the resources they need to gain or maintain a competitive advantage. Assumptions in RBV are that resources may be heterogeneous and may not be perfectly mobile across firms (Barney 1991). Firms with resources fulfilling the VRIO-criteria can gain and maintain competitive advantage (Barney 1997). According to the fundamental assumptions of PIO and RBV, resources are either homogeneous or heterogeneous. Additionally, homogeneous resources are considered mobile, while heterogeneous resources are considered immobile. Immobility as a characteristic excludes mobility and conversely, making these assumptions competitive. In the next section we will review theories that discuss complementarities between the perspectives despite these competitive characteristics.

2.3.2 Complementary

Although Resource-Based View and Porter's Industrial Organization are perspectives based on completely different assumptions, they can be considered complementary to explain firm performance (Nham & Hoang 2011, Rivard et. al. 2006, Spanos & Lioukas 2001, Tuan & Mai 2012). According to Spanos & Lioukas (2001) the RBV provides insights to the strengths and weaknesses within a firm, while Porter's five forces framework identifies opportunities and threats within an industry. Therefore, a SWOT-analysis (strengths, weaknesses, opportunities, threats) can give firms valuable information that potentially provides competitive advantage relative to competitors (Spanos & Lioukas 2001).

According to Spanos & Lioukas' (2001) findings, firm assets, strategy and industry forces affect profitability either directly, or indirectly through market performance. Firm assets includes firm resources and is a construct related to RBV, while industry forces is related to PIO. The importance of strategy is related to both perspectives and how the constructs are linked together is well illustrated in their conceptual model (Spanos & Lioukas 2001:913). Spanos & Lioukas (2001) find that profitability is only affected by specific elements from Porter's five forces. The significant findings concerning industry forces are that competitive rivalry and power of suppliers have a marginal effect on market performance and profitability. According to Spanos & Lioukas (2001), an attractive market position depends on unique firm assets. Their results indicate that firm assets and strategy have a positive effect on market performance, but none of the constructs have a direct effect on profitability. Based on these findings Spanos & Lioukas (2001) have developed a research model where PIO and RBV are viewed as complementary even though the perspectives influence different performance measures. Inspired by Spanos & Lioukas (2001), Rivard et. al. (2006) studied the contribution of information technology to business performance, and found that IT support influences strategy and that both variables influence firm performance. The purpose of their study is to improve the understanding of RBV and PIO as complementary, rather than competitive.

Drnevich & Kriauciunas (2011) conducted a study to examine how ordinary and dynamic capabilities contribute to relative firm performance. Ordinary capabilities are considered as the activities needed for a firm to *"make its living"* in the short term (Winter 2003:991), while dynamic capabilities are defined as *"[…] those capabilities used to extend, modify, change, and/or create ordinary capabilities"* (Drnevich & Kriauciunas 2011:34). Drnevich &

Kriauciunas (2011) conclude that both ordinary and dynamic capabilities influence firm performance, although benefits from these capabilities are not necessarily observable on every level in the firm. The effect of ordinary and dynamic capabilities varies according to the uniqueness of the capability and the environment. When the environment is stable, ordinary capabilities have a greater impact on firm performance, while in a dynamic environment; dynamic capabilities have a greater impact. Comparing this study to Spanos & Lioukas (2001), we observe that Drnevich & Kriauciunas (2011) in addition to consider RBV and PIO as complementary, find that resource heterogeneity has a positive moderating effect on the relationship between capabilities and firm performance.

Nham & Hoang (2011) suggest that firm performance in an industry can be explained through three strategic management perspectives: Resource Based View, Porter's Industrial Organization and Organizational Economics. Their paper suggests that these perspectives are complementary for explaining firm performance. Based on their theory, they propose a theoretical framework that can be used for further research. Elements from Porter's five forces and the VRIO-framework are included in Nham & Hoang's (2011) framework, which makes it similar to Spanos and Lioukas' (2001) model explaining variance in market performance and profitability. Tuan & Mai (2012) tested the relationship between organizational capabilities, industry effects, competitive advantage and performance. In their study, industry effects are considered a moderator on the relationship between organizational capabilities and competitive advantage. Even though industry effects are not considered an independent variable in this study, their study still implies that both PIO and RBV are important to explain competitive advantage and firm performance. Based on the findings elaborated in this chapter, a complementary view of PIO and RBV seems to have both theoretical and empirical support in recent studies.

2.4. Discussions

By reviewing literature in the field of strategic management focusing on PIO and RBV, we identified that several empirical studies argue for a complementary view on the perspectives. The main issue from our point of view is the different approach concerning the fundamental assumptions of resource heterogeneity and immobility. According to PIO, resources are considered homogeneous and mobile, implying that firms can get access to all the resources they need to acquire a competitive advantage within an industry. The RBV on the other hand, considers resources as heterogeneous and immobile, making a firm's unique resources the source of competitive advantage. Although, these assumptions are contradictions, empirical evidence supports both perspectives, indicating that both perspectives to a certain degree explain firm performance. Thus our research model will be based on a complementary view of PIO and RBV, as we find this aspect interesting.

The empirical literature also reveals that strategy as a single construct is important to explain firm performance (Rivard et. al. 2006, Spanos & Lioukas 2001). According to (Mauri & Michaels 1998:217) strategy is about *"[...] differentiating a firm from its competitors, and the task of the general management is to adjust and renew firm resources as time, competition, and change erodes their value."* In both PIO and RBV, strategy is considered necessary in firms striving for above-average performance (Barney 1991, Porter 1996, Spanos & Lioukas 2001). Thus, we will include strategy as a construct in our research model.

Drnevich & Kriauciunas (2011) conclude that heterogeneity strengthens the relationship between dynamic resources and firm performance. Besides Drnevich & Kriauciunas (2011) we did not find empirical literature concerning the moderating effect of resource heterogeneity or resource immobility. Their study only considers the moderating effect resource heterogeneity has on the relationship between capabilities and firm performance. This implies a potential gap in the empirical literature regarding the moderating effect of both resource heterogeneity and resource immobility. As stated in our discussions in Section 1.1 we would like to explore the moderating effect of both resource heterogeneity and resource immobility. In addition, we want to examine how these resource characteristics affect both firm resources and industry forces. These are aspects lacking empirical studies and our results may therefore fill a gap in the field of strategic management. We will also address the possibility of whether the assumptions are incorrect in explaining the relationship between heterogeneity/homogeneity and immobility/mobility.

2.5. Summary of Theory

Based on our literature review, we conclude that industry factors explain approximately 20% of overall performance variance, indicating that a big proportion can be explained through firm-specific factors such as firm resources. In addition, many scholars find PIO and RBV as complementary in explaining firm performance, despite the differences in the fundamental assumptions. However, the relative importance of industry factors versus firm resources is not clarified in the literature, and there is a need for further research to increase understanding regarding sources of sustained above average firm performance. We elaborated the possibility of industry factors having a greater impact in some industries, while firm resources may have greater impact in other industries, and that the effect of industry and firm factors on firm performance will vary according to industry context and firm strategy. Although, we conclude that both external industry factors and internal firm resources are likely to impact firm performance to some degree in any type of industry.

We presented a research question regarding the relative importance of PIO and RBV on firm performance, and how resource characteristics moderate this relationship in Section 1.1. By addressing this research question we want to obtain a better understanding of factors providing a sustained above average firm performance. A gap in the literature concerning the importance of resource heterogeneity and resource immobility was discovered during our literature review. There are no empirical studies concerning how resource heterogeneity and resource immobility affect the relationship between PIO/RBV and firm performance. Our thesis may therefore be a contribution that fills a gap in the field of strategic management. In the next chapter we will develop a model and corresponding hypotheses in accordance with our research question. We will also elaborate the rationale behind our hypotheses.

3. Research Model and Hypotheses

In this chapter we present our research model and the corresponding hypotheses to be tested in an empirical study. The model and hypotheses are based on our theoretical framework. According to our literature review, theoretical and empirical studies suggest that both industry and firm factors are important to explain firm performance despite differences in the fundamental assumptions. The conflicting dilemma between the assumptions is whether resources may be heterogeneous and mobile, or homogeneous and immobile. Even though the fundamental ideas of PIO and RBV are considered competitive, our review indicates a complementary view between the perspectives. A complementary view will therefore be the basis of our research model. We would like to examine to what degree PIO and RBV predictions explain variance in firm performance. We will also examine the moderating effect of resource heterogeneity and resource immobility. By addressing these research questions, we are testing two important theories in the field of strategic management and their fundamental assumptions. Through questioning these acknowledged theories, we want to identify a potential perspective that differs from the traditional assumptions in PIO and RBV.

3.1. Research Model

Based on our theoretical framework in Chapter 2, we propose the following research model that acknowledges that PIO and RBV affect firm performance in a complementary way. Please see Figure 1.
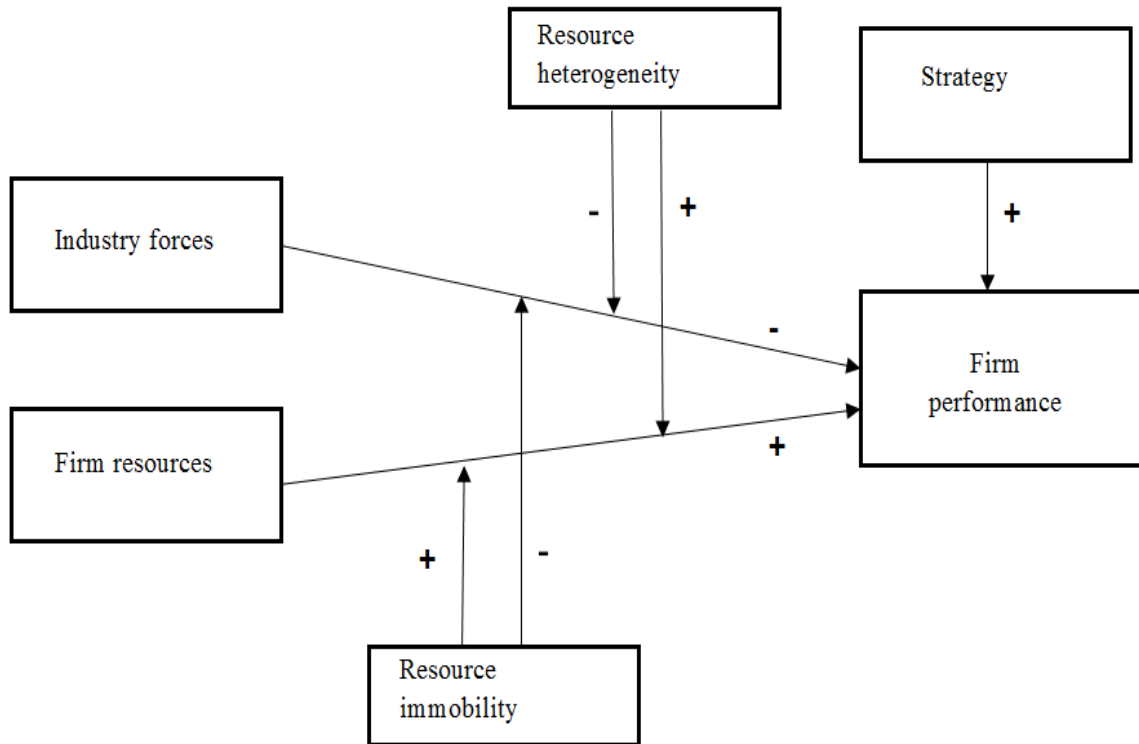
Figure 1: Research Model

Two of the independent variables in the model are industry forces in accordance with Porter's Industrial Organization perspective (1980) and firm resources in accordance with Barney's Resource-Based View (1991, 1997). In our research model, we consider an industry's resource characteristics to have a moderating effect on the relationship between PIO/RBV and firm performance. Our model indicates that resource heterogeneity and resource immobility have a negative moderating effect on the relationship between industry forces and firm performance, and a positive effect on the relationship between firm resources and firm performance. Additionally, we consider strategy as an independent variable affecting firm performance in accordance with Barney (1991, 1997), Porter (1996), and Spanos & Lioukas (2001). Based on Spanos & Lioukas (2001) we consider firm performance a two dimensional phenomenon consisting of market performance and profitability.

3.2. Hypotheses

We propose the following hypotheses:

H1	Industry forces have a negative effect on firm performance.
H2	Firm resources have a positive effect on firm performance.
H3a	As resource heterogeneity increases, the effect of industry forces on firm performance decreases.
H3b	As resource heterogeneity increases, the effect of firm resources on firm performance increases.
H4a	As resource immobility increases, the effect of industry forces on firm performance decreases.
H4b	As resource immobility increases, the effect of firm resources on firm performance increases.
H5	Strategy has a positive effect on firm performance.

Our literature review reveals that certain aspects of our research model have been empirically tested, but none of the studies examine all of the constructs with corresponding relationships. Testing all of our hypotheses and our research model in its entity enables a contribution to the field of strategic management. Our method of research will be a quantitative study of firms in the hotel industry.

3.2.1. Industry Forces

In accordance with Porter's theory (1980), firms can achieve a competitive advantage if the threats from new entrants, customers, suppliers, substitutes, and competitors are low, and entry barriers are high. A competitive advantage in turn leads to better results and performance (Porter 1980). If the threats from customers, suppliers, substitutes, and competitors are high and it is easy to enter the industry, these industry forces have a negative effect on firm performance. This is due to the firm's weak strategic position in a competitive environment. As these threats increase, their negative effect on firm performance increases accordingly. The result of high threats may be related to many competitors within the same industry offering similar products, buyers demanding better quality to a lower price, or suppliers demanding higher prices. These negative consequences prevent firms from achieving a competitive advantage, and therefore have a negative effect on firm performance. Spanos & Lioukas (2001) support Porter's theory, and argue that industry forces have a negative effect on profitability. Powell (1996), Rumelt (1991), Schmalansee (1985), and Wernerfelt & Montgomery (1988) have also asserted that industry forces explain overall performance variance to a certain extent, indicating that industry forces have a direct effect

on firm performance. As we find empirical support for the correlation between industry forces and firm performance, we suggest the following hypothesis:

H1: Industry forces have a negative effect on firm performance

3.2.2. Firm Resources

Barney (1997) argues that firm resources lead to a competitive advantage when the firm's resources are valuable, rare, non-imitable and well organized. Further, resources that lead to a competitive advantage have a positive effect on firm performance (Barney 1997). Powell (1996), Schmalansee (1985) and Wernerfelt & Montgomery (1988) found that industry forces explain approximately 20% of variance in firm performance, indicating that firm factors like resources explain a significant proportion of the remaining 80%.

Spanos & Lioukas (2001) found that firm assets indirectly explain 28% of a firm's profitability through market performance. Nham & Hoang (2011) found that tangible, intangible or human resources have a positive effect on organizational capabilities that in turn affect performance through competitive advantage. Drnevich & Kriauciunas (2011) argue that ordinary and dynamic capabilities have a positive effect on relative firm performance either directly or indirectly through environmental dynamism. These theoretical and empirical findings imply that firm resources have a positive effect on firm performance, either directly or indirectly. In accordance with Barney's theory (1997) and empirical findings related to RBV, we propose the following hypothesis:

H2: Firm resources have a positive effect on firm performance.

3.2.3. Resource Heterogeneity

Drnevich & Kriauciunas (2011) distinguish between homogeneous and heterogeneous capabilities. Homogeneous capabilities can be observed in an industry, and resources providing "best practice" will easily spread among different firms within an industry (Drnevich & Kriauciunas 2011). Resource heterogeneity, on the other hand, can be defined as a capability that is *"[…] unique, customized, idiosyncratic, and specific to a firm"* (Drnevich & Kriauciunas 2011:255). Drnevich & Kriauciunas' (2011) definition of heterogeneity is in accordance with Barney's fundamental ideas of resources as unique and firm specific (Barney 1991). In addition to being unique, Peteraf (1993) defines resource heterogeneity as firms possessing a collection of resources and capabilities that differ from competitors. If firms

within an industry possess unique resources or capabilities that are different from competitors, it can be argued that the industry's resources are heterogeneous.

The value of resource heterogeneity is not addressed in the PIO perspective, as the assumption is based on homogeneous resources. According to Porter (1980) resources are considered homogeneous, making them common for all firms within an industry. This implies that firms achieve above normal profit within their industry by acquiring the resources they need to gain a competitive advantage. As resources are considered similar across firms within an industry, it is implied that internal factors do not explain variance in firm performance, making resources a poor measure for relative firm performance. Therefore industry forces are a better measure for variance in firm performance according to PIO. If an industry on the other hand is characterized by resource heterogeneity, it conflicts with the assumption in PIO, and the industry forces do not explain as much of the variance in firm performance as they would have done if the resources were homogenous. High degree of resource heterogeneity therefore makes firms less comparable and less sensitive to industry forces. Thus, firms are less responsive to changes in the industry that would otherwise affect its performance. Based on this we therefore propose that the higher the degree of resource heterogeneity, the lower the contribution of industry forces to firm performance. Thus, resource heterogeneity is considered to have a debilitating effect on the relationship between industry forces and firm performance.

H3a: As resource heterogeneity increases, the effect of industry forces on firm performance decreases.

If the predictions are that resources explain firm performance in accordance with RBV, resource heterogeneity will increase the effect of that relationship. According to RBV, resources are the source of competitive advantage when they are valuable, rare, inimitable and well-organized (Barney 1997). If the industry is characterized by homogenous resources, the firms within that industry cannot be differentiated based on resources. Therefore resources will not provide a significant variance in relative firm performance. Resource heterogeneity, on the other hand, implies that resources are unique across firms, which differentiates them from one another. As these resources differ across firms, the relative firm performance will be affected by internal factors. Thus, if an industry is characterized by resource heterogeneity it is implied that resources explain firm performance in a greater

extent. Based on this, we propose that the higher the degree of resource heterogeneity, the higher the contribution of firm resources on firm performance.

H3b: As resource heterogeneity increases, the effect of firm resources on firm performance increases.

3.2.4. Resource Immobility

According to Peteraf (1993:183), *"Resources are perfectly immobile if they cannot be traded".* This description of resource immobility indicates similarities between resource heterogeneity and resource immobility. However, the difference between these resource characteristics can be explained through differentiation and availability. While heterogeneity implies that resources are differently divided between firms, immobility implies that resources are not available for anyone to acquire.

According to the PIO perspective, resources are considered to be homogeneous and perfectly mobile, making it easy for firms to acquire the resources they depend on to gain a competitive advantage. Thus, all of the firms within an industry have access to the same resources, making the firms' internal factors similar. Therefore, firm performance can only be significantly differentiated based on external industry factors. Resource immobility, on the other hand, conflicts with this assumption, as it implies that resources may be difficult to acquire and firms are therefore differentiated due to their internal factors. Similar to resource heterogeneity, increased resource immobility within an industry will make the firms less sensitive to industry changes and hence less comparable. This will in turn affect the relative firm performance. Due to resource immobility, industry factors do not explain as much of the variance in firm performance, as they would have done if the resources within an industry were mobile. Thus, the higher the degree of resource immobility, the lower the contribution of industry forces on firm performance.

H4a: As resource immobility increases, the effect of industry forces on firm performance decreases.

The fundamental idea of RBV implies that in addition to being heterogeneous, resources have to be immobile for firms to achieve a competitive advantage and in turn superior performance (Barney 1991). Mobile resources, on the other hand, make it easy for competitors to gain access to valuable and rare resources that may lead to competitive parity, which in turn

prevents superior performance. Resource immobility can be considered a barrier that prevents competitors from acquiring the resources they need. This can be due to a unique history, causal ambiguity and/or social complexity (Dierickx & Cool 1989). Thus, in industries with high resource immobility, firms will differentiate themselves from each other due to internal factors, which in turn will affect the variance in firm performance. Therefore, we argue that in an industry characterized by resource immobility, resources will explain a greater extent of variance in firm performance. Based on this, we propose the following hypothesis:

> *H4b: As resource immobility increases, the effect of firm resources on firm performance increases.*

3.2.5. Strategy

Strategy is an important variable with an effect on firm performance whether it is industrial factors or firm resources that explain most of the variance in firm performance. Porter (1996) argues that the way firms can outperform its rivals, is by establishing a difference that the firm can preserve. According to Porter (1996:62), a firm must *"[…] deliver great value to customers or create comparable value at a lower cost, or do both"*. Firms can therefore achieve a sustained competitive advantage through a differentiation or a low cost strategy (Porter 1980). Strategy is according to Porter (1980) what distinguishes firms from competitors, and it is therefore a highly important variable to consider when measuring firm performance.

Both IO and RBV acknowledge the importance of an attractive strategic position. When exploring how useful industry effects are as a unit of analysis for firm performance, Rumelt (1991) found that strategies of individual businesses are more important than industry effects. Further, Rumelt (1991) claims that to maintain a competitive advantage within an industry the firm has to focus on renewing resources so that the products hold value even if changes outside the firm may occur. Rumelt's (1991) view on strategy indicates that it should be considered an independent variable that influences firm performance regardless of industry forces. According to Barney (1991), Porter (1996), and Spanos & Lioukas (2001), strategy is considered necessary for firms wanting to achieve above-average performance. Whether a firm has a differentiation or a low cost strategy is likely to affect firm performance, and does not necessarily depend on industry forces and firm assets. Firms that do not have a strategy for how they are operating their business are not likely to achieve and maintain a competitive

advantage or a superior firm performance (Porter 1980). The effect of a firm strategy is therefore important to evaluate as an independent variable. Based on this we propose the following hypothesis:

H5: Strategy has a positive effect on firm performance.

4. Research Methods

In this chapter the research methods that are applied to test our hypotheses and research model are described. In Section 4.1 we discuss our choice of research design, while in Section 4.2 and 4.3 the empirical setting and sample frame are elaborated. Section 4.4 describes the measurement process, including a presentation of the scales applied and developed in our study. This chapter ends with a description of the data collection procedure in Section 4.5.

4.1. Research Design

A study's research design is guided by the purpose of the study and the research model, and describes how the research is conducted (Mitchell & Jolley 2013). The purpose of our study is to examine the relationship between multiple independent variables and a dependent variable and a causal design is therefore the most suitable research design. A causal design can be conducted through an experimental design, a cross-sectional design, or a longitudinal design (Ringdal 2007). An experimental design is preferable when the researcher wants to make cause-effect statements through manipulating a treatment to prove that the treatment leads to certain behaviour (Mitchell & Jolley 2013). Our constructs and relationships are complex and difficult to measure through experiments. A cross-sectional design is based on one observation, while a longitudinal design is based on repeated measures over time (Ringdal 2007). The purpose of a longitudinal design is to observe changes over time, which requires substantial resources and time. It would be preferable to test our hypotheses through a longitudinal study to secure improved validity, but due to time- and resource limitations, we will conduct a cross-sectional study. A cross-sectional design gives insights into variations and correlations between variables. A cross-sectional study with a survey design is the form of design that is most frequently used when conducting quantitative studies (Ringdal 2007).

According to Bollen (1989a) there are three necessary conditions that have to be satisfied to ensure causality. The first is *isolation*, which refers to whether the independent variable X explains the independent variable Y, and is not affected by a third variable (Bollen 1989a). By testing hypotheses within a homogeneous setting, this requirement can be satisfied (Bollen 1989a). Our research model will be tested in a single industry and the survey will be distributed to similar hotels that are part of the major chains in the hotel industry. The empirical setting will be introduced in Section 4.2.

The second requirement to ensure causality is *covariation*, which refers to whether variation in the dependent variable (Y) is related to variation in the independent variable (X) (Bollen 1989a). This requirement ensures that there is an empirical correlation between the variables. Due to the argument of resources being heterogeneously distributed within the industry, internal variance will occur. And as the survey is distributed to hotels all over Norway, the firms' external factors are also likely to have variance.

Directionality is the third condition that should be satisfied to ensure causality according to Bollen (1989a). To ensure that this condition is satisfied the cause (independent variable) has to occur before the effect (the dependent variable). This condition will not be satisfied in our study, as we are only able to conduct one survey and the independent and dependent variables will be measured at the same time. However, according to Bollen (1989a), this is the least important causality condition, while isolation is considered the most important.

To summarize, our research design is cross-sectional and to ensure causality we will conduct our survey within a homogeneous setting. Due to resource heterogeneity and firm differences there will be variance in our independent variable, thus fulfilling the requirement of covariation. Even though we are not able to ensure the condition of directionality, we argue that our hypotheses are based on literature indicating a distinct cause and effect relation between our variables.

4.2. Empirical Setting

This empirical study can be classified as a theory test as we are testing the importance of Porter's Industrial Organization perspective and Barney's Resource-Based View. When testing a theory, it is important that the empirical setting ensures internal and statistical conclusion validity (Mitchell & Jolley 2013). This means that the survey shows a clear correlation between the variables we study, and that the empirical data provides a statistically valid conclusion (Mitchell & Jolley 2013). To strengthen the validity and reliability of the study, the empirical setting should be homogeneous, and it should be defined and described briefly (Mitchell & Jolley 2013). The empirical setting can be considered homogeneous if the setting for instance consists of one particular industry, rather than many different industries. This is in accordance with Bollen's (1989a) isolation condition.

In our study we examine the relationship between industry forces, firm resources, strategy and firm performance, and it is therefore important that our empirical setting consists of firms that are striving for a competitive advantage within the industry. Further, firms within the industry have to be heterogeneous so that it is possible to explore variation in performance, making it possible to differentiate firms that succeed from those who do not. This will give an insight to specific factors that may provide a competitive advantage within the industry.

The empirical setting selected for our study is the Norwegian Hotel industry. The hotel industry consists of three typical segments which describe the customer need. These segments are 1) Conference, 2) Business travellers and 3) Tourists. Hotels usually have a primary segment, but additionally offer a combination of the three segments, making them a competitor in all the markets. As the hotel industry consists of different types of hotels competing for the same customers, the industry can be characterized by high competitive industry forces, making the industry relevant for our study. Additionally, it is likely that each hotel's resources have an effect on performance, and that some hotels may have unique resources that other hotels do not possess. Hotels with unique resources, such as a unique concept or location, will probably attract a higher number of customers than hotels lacking such attributes. As hotels have different resource characteristics, this industry is considered highly relevant for measuring the independent effect of firm resources, as well as the moderating effect of resource heterogeneity and resource immobility.

4.3. Sample Frame

The population of this study is hotels operating in Norway, and our sample therefore has to consist of representatives from this population. According to Horwath Consulting, there were 1102 hotels in Norway in 2012 (Horwath 2013). This is a relatively large population, and it is difficult to study all of the firms within this population. Thus, it is normal to select a sample frame based on certain criteria that represents the population. Our selection of sample is based on the following criteria:

- The firm is operative

- The firm had a sales turnover of at least one million in 2012

- The firm has more than one employee

- The firm is part of a hotel chain and part of Reisepol's database

Through this sample frame we strengthen the study's explanatory power, and reduce the effects of other variables. When considering the size of the sample frame, Mitchell and Jolley (2013) argue that the larger the sample size, the more accurate it reflects the population. However, the sample size is dictated by the time and resources available. Tabachnich & Fidell (2007) developed a formula to estimate the sample size in a study. According to their theory, the sample size should be $50 + 8m$, where "m" is the number of variables in the research model. As our model consists of 6 variables, our sample size should at least be 98. Our survey will be distributed through Reisepol's database, and through this database 273 hotels will receive the survey. This sample size is therefore in accordance with Tabachnich & Fidell (2007).

The use of key informants as data source is common when analyzing organizations (John & Reve 1982). According to Campell (1955), a key informant is a person who has particularly knowledge about an event, a theme or a field, and can speak on behalf of others. Additionally, the key informant has to be motivated to share knowledge that is relevant for the researcher (John & Reve 1982). It is therefore preferable with more than one key informant from each firm to increase data collection and to strengthen the study's reliability and validity. However, it is likely that the key informants within a firm wish to allocate their time in a better way than answering a survey, making it difficult to require more than one key informant in each firm. Therefore it is more likely that the response rate will be higher if only one key informant is required for this survey.

According to Ketokivi & Schroeder (2004), subjective measures can be good indicators of a variable if what is being measured is observable, several items are being used to increase reliability, and researchers use method triangulation. The phenomenon we are studying is not easily observable for every employee in a firm. However, hotel owners or other employees who have a key manager position should be able to relate to our questions. During our pre-test our main focus was to adapt our survey to the hotel industry, so that the key informants find the questions relevant for their firm and industry. Although it would be preferable to use several methods to collect data, our time and resource limitations do not give us the opportunity to take advantage of method triangulation.

4.4. Measurement

In this section we will describe the procedure for measuring our constructs. Initially we will explain the criteria that form the basis of our study. Then, we review each of our constructs and develop items to measure these constructs based on our theoretical review.

4.4.1. The Measurement Process

According to Bollen (1989b) the following four steps is important to consider in the measurement process:

1) Develop a theoretical definition to give meaning to the concept
2) Identify dimensions of a concept and the corresponding latent variables
3) Form measures
4) Specify the relationship between the measures and the latent variables

In our theoretical framework in Chapter 2 we discussed theoretical definitions of our constructs. In this chapter we will identify dimensions and latent variables to represent those constructs and form measures for each of our variables and specify the relationship between the measures and the latent variables.

In accordance with Churchill (1979), we form most of our measures by adapting scales that have been applied and validated in other studies. When searching for empirical measurements we had the following criteria to ensure substantive and empirical relevance: 1) Search only in published journal articles, 2) the article has to include more than one key word. For instance, when measuring industry forces, the article has to include industrial organization, Porter and performance as key words. 3) The article has to include one of the following methodological key words: Data, empirical, test, statistical, finding, result, evidence. 4) The article has to be published in 2001 or later to ensure that the studies measuring these constructs are recent. Articles that fulfilled these criteria were examined closely. Additionally, when we found articles that measured our constructs we checked if the measurement scales were validated. We were not able to find measurement scales for all of our constructs, and we have therefore developed scales to measure resource heterogeneity and resource immobility.

4.4.2. Industry Forces

In the Five Forces Framework, Porter (1980) identifies the following attributes of industry structure that can threaten a company's competitive advantage: 1) Rivals, 2) powerful suppliers, 3) powerful buyers, 4) substitutes, and 5) new entrants.

Adapting a suitable measurement for these constructs requires an evaluation of whether the measurements should be objective or subjective. An objective measuring process provides the advantage of avoiding any kind of biases from the informants own point of view or opinion. A subjective measurement on the other hand, gives a variation between the responding firms. In accordance with several studies a manager's perception of the industry forces is of paramount importance in impacting firm performance (O'Cass & Ngo 2007 and Pecotich, Hattie & Low 1999). Additionally, a subjective evaluation of how the forces affect various firms within an industry may be very different across key informants. This may be a potential bias when applying a subjective measurement. Despite this issue, many scholars have operationalized this variable through subjective measures (e.g. Galbreath & Galvin 2008, Powell 1996, Rivard et. al. 2006, and Spanos & Lioukas 2001). These scales are well validated and we therefore apply subjective measures for industry forces, as they fulfil the purpose.

When measuring industry forces we have to consider industry limits that may be vague. The competition between firms can be explained by analyzing the market structure within an industry (Elrod et. al. 2002). Elrod et. al. (2002:222) define market structure analysis as an explanation of *"the extent to which the market offerings under consideration are substitutes or complements"*. Product complements and substitutes are other elements that give an additional value to another product, or a product that serves the same customer need. Day, Shocker & Srivastava (1979) conclude that market boundaries are arbitrary and seldom clear cut. Therefore, it may be difficult to decide where the limits between industries are. By defining a product market, it may be easier to set a limit. Day et. al. (1979:10) define product market as: *"the set of products judged to be substitutes within those usage situations in which similar patterns of benefits are sought, and the consumers for whom such usages are relevant."* Products that do not fall under this definition are therefore not part of the industry. Due to the dynamic nature of the market environment, we will specify that informants consider their part of the industry, rather than the industry as a whole.

Measuring threat of entries, threat of substitutes, buyer power and supplier power, scholars have used single-item measurement (Galbreath & Galvin 2008, Powell 1996, Rivard, et. al. 2006, and Spanos & Lioukas 2001). The advantage of single-item measurements is that these are simple and easy to apply in surveys. However, they may not capture all relevant dimensions of a latent variable. To capture multiple aspects of the different dimensions, we will adapt a scale with multiple measurements for all of the dimensions. O'Cass & Ngo (2007) and Pecotich et. al. (1999) have developed scales that consist of several items that measure each of the dimensions.

In our study we will adopt O'Cass & Ngo (2007)'s scale as it is the more recent of the two, as well as a modification of the 54-item scale developed by Pecotich et. al. (1999). This measurement scale consists of 20 items capturing the five dimensions in the industry forces variable. O'Cass & Ngo (2007) asked their key informants to relate the questionnaire to a market brand as they studied how to achieve better brand performance. As our study focuses on industry forces within an industry, our key informants will be instructed to evaluate the questions towards their market segment and closest competitors. O'Cass & Ngo (2007) use a seven point scale to measure industry forces. To fit our survey structure we use a five point scale ranging from 1= Disagree strongly to 5= Agree strongly. In order to suit the Norwegian hotel industry when formulating our questionnaire, we made some minor adjustments to the original scale.

4.4.2.1. Competitive Rivalry

Porter (1980) defines competitive rivalry as the intensity of competition among a firm's direct competitors. O'Cass & Ngo's (2007) measurement scale consists of four items that measure competition in regards to market share, prices, retaliation and intensity. These four items measure whether the competition among firms is intense. In addition to the original scale, we added a question related to market growth. The purpose of this item is to measure whether there is growth in the industry, as low or no growth indicates a highly competitive industry due to limitations in the market. Further, we excluded an item containing terms used to describe competitors as we found it rather hostile, and our pretesting revealed that terms like "intense" and "fierce" are not considered appropriate for describing the competition within the hotel industry. The key informants will be asked to evaluate the statements relative to their most important competitors on a scale ranging from 1 to 5 where 1= Disagree strongly and 5= Agree strongly. A low number indicate low rivalry among competitors, while

a high number indicate high rivalry among competitors. However, the opposite applies to item number 1. Please see Table 4.1.

Table 4.1.
Industry Forces - Competitive Rivalry

1.	The industry is emerging.
2.	Firms in the industry compete intensely to hold and/or increase market share.
3.	Competitive moves incite retaliation and counter moves.
4.	Price competition is highly intense.

4.4.2.2. Bargaining Power of Suppliers

The bargaining power of suppliers relates to "the extent to which suppliers are able to exert influence and affect the firm's profitability and general well-being" (Pecotich et. al. 1999:410). To measure this dimension key informants will be asked to consider the supplier's contribution, and whether the suppliers demand and gain concessions. Additionally, to get an insight to whether the key informants believe the suppliers are powerful, they will be asked about this directly. The original scale measured whether suppliers had the power to raise prices or reduce quality, but our pre-test revealed that this question was quite difficult to answer. It was suggested that the suppliers' bargaining power is more accurately measured by asking the informants whether some suppliers give their hotel growth in demand. We therefore, changed the original item in favour of the suggested item. By measuring the items in Table 4.2, the bargaining power of suppliers will be clarified. A low score on the 5-point Likert scale indicates low bargaining power, while a high number indicates the opposite.

Table 4.2.
Industry Forces - Power of Suppliers

5.	The supplier's contribution is an important input into the industry.
6.	Some suppliers give firms within our industry growth in demand.
7.	Suppliers or supplier groups are powerful.
8.	The suppliers of raw and other materials do demand, and gain concessions.

4.4.2.3. Bargaining Power of Buyers

The bargaining power of buyers relates to *"the extent to which buyers are able to exert influence and affect the firm's profitability and general well-being"* (Pecotich et. al. 1999:410). Buyers according to this definition can be both companies (Business-to-business) and customers (Business-to-customers).

To measure this dimension the key informants will be asked about various buyer characteristics within their respective industry. These characteristics are related to whether the buyers are more concerned about price than quality, and whether a small number of buyers form a large proportion of the industry's revenue. In O'Cass & Ngo's (2007) original scale they asked whether buyers and buyer groups are in a position to demand concessions, and whether the buyers are highly concentrated. To adapt these items to our empirical setting the informants are asked whether the buyers are more concerned about price or quality. These questions are easier to answer and give a good indication of whether the buyers have product knowledge. Further, the original item measuring whether buyers are highly concentrated is similar to the item measuring whether there is small number of buyers who form a large proportion of the sale in the industry, and was therefore considered redundant in our pre-test. To get an insight to whether the key informants believe that buyers are powerful, they will be asked about this directly. Low scores on the 5-point Likert scale indicate low bargaining power for the buyers, while a high score indicates high bargaining power. This applies for all of the items presented in Table 4.3, except item 10. This item has been reversed, as customers that are quality- and detail oriented are more concerned with quality than price. This gives hotels the opportunity to differentiate themselves from competitors and offer customers a quality product that customers are willing to pay for, shifting the power on to the hotel, rather than customers.

Table 4.3.
Industry Forces - Power of Buyers

9.	The buyers care more about price than quality.
10.	The buyers are quality- and detail-oriented.
11.	Buyers or buyer groups are powerful in the industry.
12.	There are a small number of buyers who form a large proportion of the sale in the industry.

4.4.2.4. Threat of Substitutes

Substitutes can be defined as alternative products or services that meet approximately the same customer needs (Porter 1980). We want to identify to what degree the industry is threatened by substitute products and/or services. The items in this dimension question awareness of competition from substitutes, and whether products in their industry may easily be replaced. The items also question profit limitation due to substitutes and whether the industry makes products for which there are a large number of substitutes. Item 13 in O'Cass & Ngo's original scale asks about key informants' awareness of the strong competition from

substitutes. We made a minor adjustment and removed "strong" from the item, as it might be competition from substitutes even though this competition is not strong. The purpose of this item is to measure whether there are substitute products and the firms' awareness of these products. A high score on this item indicates a strong threat from substitutes, and it may therefore be redundant to include the term "strong" in the formulation. Key informants that strongly disagree with the statements in Table 4.4 indicate that the threats from substitutes are low by submitting a low score, while key informants that strongly agree with these statements indicate a strong threat from substitutes by submitting a high score.

Table 4.4.
Industry Forces - Threat of Substitutes

13.	All firms in the industry are aware of the competition from substitutes.
14.	Substitute products limit the profitability.
15.	The industry's products serve functions which may be easily served by many other products.
16.	The industry makes products for which there are a large number of substitutes.

4.4.2.5. Threat of New Entrants

The threat of new entrants in an industry depends on present barriers to entry and existing competitors' reaction to new entries (Porter 1980). Porter (1980) defines entry barriers as attributes of an industry's structure that increase the cost of entry. If the costs of entering an industry are high, the threat of new entrants is likely to be low. Key informants will be asked to evaluate if the established firms in the industry use substantial resources to prevent new entrants, and if there are strong retaliations towards new entrants. Additionally, key informants will be asked whether the industry is characterized by brand names and loyalty. As a result of our pre-test we changed one of the original items concerning the costs of entering the industry. Rather than asking about costs of entry, the informants are asked in what degree new entrants occur in the industry. Entries in the hotel industry occur in several ways and among the alternatives are renting, buying or building a property that can be used as a hotel. These options provide several ways of entrants and a wide range of variety concerning costs of entry. We therefore argue that a general item measuring the degree of new entrants provides a more accurate measure in our empirical setting. The key informants will be asked to evaluate the statements in Table 4.5 on a Likert scale ranging from 1 to 5. A high score indicates that the threat of new entrants is low, while a low score indicates that the threat of new entrants is high. Since a high score indicates a low threat, the scale will be reversed when analysing the data. However, the opposite applies to item 17.

Table 4.5.
Industry Forces - Threat of New Entrants

17.	There is a lot of new entrants in the industry.
18.	Established firms have used substantial resources to prevent new entrants.
19.	Retaliation towards new entrants is and has been strong.
20.	New entrants spend heavily to build up brand names and to overcome brand loyalties.

4.4.3. Firm Resources

While a firm is defined as a *"[…] bundle of activities"* in the PIO perspective, a firm is considered as a *"[…] bundle of resources"* according to RBV (Spanos & Lioukas 2001:909). In Section 2.2 we discussed Barney`s (1991) theory and his VRIO-framework. Barney (1991) builds his theory on resources as decisive for a competitive advantage, resulting in superior performance. To identify these resources we need a scale that measures how a variety of resources affect firm performance, as in our study it is important to determine the value and importance of each resource and capability.

Spanos & Lioukas (2001) use a scale consisting of three dimensions to measure firm resources: Organizational capabilities, marketing capabilities and technical capabilities. The technical capabilities dimension includes items such as production and is not applicable for the hotel industry that has services as its primary activity. Galbreath & Galvin (2008) have adapted and modernized this scale, but refer to the dimensions as tangible assets, intangible assets and capabilities. According to Galbreath & Galvin (2008), recent approaches to studying resources tend to be more specific, focusing upon a wide range of material and immaterial factors. While Spanos & Lioukas (2001) left out the financial factors in their research, Galbreath & Galvin (2008) include factors from firms` balance sheets as tangible resources. Developing our measurements, we find Galbreath & Galvin's (2008) scale as the most relevant to our research as it is more recent and gives an insight to the firms' key resources and capabilities. Their scale is based on Hall (1992) and Fahy (2002). More recent studies such as Pribadi & Kanai (2011) have also used Hall (1992) and Fahy (2002) as the basis for their measurement scale, and all of the mentioned scales have a subjective approach. To achieve optimal results we find it necessary to adapt Galbreath & Galvin's (2008) scale to our empirical setting. The informants in our pre-test have made us aware of several key factors that are not included in the original scale, while some of the original items are not applicable for the hotel industry. Thus, we have adopted Galbreath & Galvin's (2008) scale

according to the feedback we received during our pre-test. The key informants will be asked about each factor's relative importance on their firm performance.

4.4.3.1. Tangible Assets

The first dimension includes some items that firms report on their financial statements. These items can be considered objective measures as they are documented in the firm's balance sheet and we expect the key informant to have access to this information. Nevertheless, the informant's evaluation of relative importance compared with for instance intangible assets makes these measures subjective. Land is one of the most important factors in the hotel industry and we therefore divide this item and measure two different aspects in our adaption of the scale. One item measures how location affects performance, while the other item measures the impact of a unique destination. In the original scale Galbreath & Galvin (2008) measure access to capital through three different items (cash, financial investments and raised financial capital). When pre-testing the scale, our informants acknowledged these items as redundant and suggested that they should be replaced by one item measuring access to capital. Additionally, they identified environmental investments and technological investments in efficiency and to improve customer experience as important measures of tangible assets in the hotel industry. All of the tangible assets are presented in Table 4.6, and measured in a five-point Likert scale ranging from: 1= Comparatively no impact to 5= Comparatively high impact. A high score indicates that the tangible assets have a huge impact on the firm's performance.

Table 4.6.

Firm resources - Tangible Assets

1. Buildings and other physical structures (e.g., factories, offices, warehouses, stores, showrooms).
2. Location.
3. Unique destination.
4. Access to capital.
5. Investments in environmental measures.
6. Technological investments in efficiency.
7. Technological investments to improve customer experience.

4.4.3.2. Intangible Assets

In the second dimension we measure assets that are intangible, such as firm culture, organisational policies and organizational structure. These items are not reported in the firm's balance sheets or financial statements, making them difficult to measure objectively.

Therefore, we have to ask the key informants about their subjective evaluation of the following items. Galbreath & Galvin (2008) obtained all of their items from Hall's (1992) framework of intagible resources. In our adapted scale we have removed some of these items that were considered not relevant in our pretest, and replaced these with resources that are highly important in the hotel industry. Copyrights, patents and trademarks were replaced with customer insight, and purchases from regular customers. Key informants will be asked to range the importance each of the intangible assets in Table 4.7 have on firm performance on a scale ranging from 1= Comparatively no impact to 5= Comparatively high impact.

Table 4.7.
Firm resources - Intangible Assets

8. Company reputation.
9. Customer service reputation.
10. Registered designs.
11. Regular customers.
12. Customer insight.
13. Organizational policies (e.g., recruitment, compensation, reward, training) designed to acquire, develop, and retain the human talent of the firm.
14. Organizational structure (i.e., the operating and reporting structure) of the firm.
15. Shared organizational values, beliefs, attitudes, and behaviors (i.e., firm culture).

4.4.3.3. Capabilities

The last dimension that measures firm resources is capabilities and is also adapted from Galbreath & Galvin's (2008) interpretation of Hall (1992). This dimension reflects the firms' know-how and relationships with external sources. In the original scale there was only one item measuring both the relations to customers and suppliers. We consider customers and suppliers as two different aspects in the hotel industry and believe that by combining those into one item may result in an inaccurate measure. This issue is solved by dividing it into two items, making it less confusing for the informant and therefore providing an accurate measure. A high score on the items presented in Table 4.8 indicates that capabilities are important contributors to firm performance.

Table 4.8.
Firm resources - Capabilities

16. The skills, expertise, and know-how of the managers of the firm.
17. The overall skills, creativity, and know-how of non-management employees of the firm.
18. Relationships with suppliers.
19. Relationships with customers.

This measurement scale gives a comprehensive overview of each firm's most important resources and their contribution to firm performance. It also provides an insight to how the

resources are rated against each other, and which resources can be considered as critical success factors. None of the items from Galbreath & Galvin's (2008) scale were reversed, although we did change and replace several of the items to adapt the scale to our empirical setting. We also changed the scale range from 0-4, to 1-5, as 3 seemed like a more applicable neutral point than 2.

4.4.4. Resource Heterogeneity

In our theoretical framework we defined resource heterogeneity as firms possessing a collection of resources and capabilities that differ from competitors (Peteraf 1993). In our search for studies measuring resource heterogeneity in accordance with our definition, we found no relevant measurement scales. Drnevich & Kriauciunas (2011) measure the moderating effect resource heterogeneity has on the relationship between capabilities and firm performance by measuring efficiency processes and comparing the output to industry average. As our resources consist of both tangible and intangible resources, in addition to capabilities, this measurement scale is difficult to adapt to our empirical setting. In addition, our research heterogeneity measure must comply with industry forces.

In the development of a suitable measurement scale for resource heterogeneity the pre-test played a vital role as it was suggested that Critical Success Factors (CSF) could be a good way to measure resource heterogeneity. According to key informants in the hotel industry CSF is a well-known term in the industry and is crucial to determine the relationship between industry forces/firm resources and firm performance. CSF can be defined as *"[…] those few things that must go well to ensure success for a manager or an organization, and, therefore, they represent those managerial or enterprise areas that must be given special and continual attention to bring about high performance. CSFs include issues vital to an organization's current operating activities and to its future success."* (Boynton & Zmud 1986:17). According to this definition CSF can be anything from tangible resources such as buildings to intangible resources such as knowledge, as long as these factors contribute to superior performance. If firms within an industry possess CFS that are different from competitors, it can be argued that the industry`s resources are heterogeneous.

Due to the differences in segments, location etc., CSF can be different from one hotel to another. If the CSF are different all across the industry it will indicate resource heterogeneity as different firms possess different resources. Our informants will be asked if CSF are

understood differently in the industry and whether their CSF differ from their competitors'. If CSF are understood differently and they differ between competitors, this may imply that firms have unique resources and are able to utilize these resources in different ways, making the industry heterogeneous. Resource heterogeneity within an industry can also be recognized by whether it is difficult to get access to or develop CSF. This provides us with items that measure four important aspects related to resource heterogeneity as an industry characteristic. Key informants will be asked to evaluate four statements in Table 4.9 on a five point Likert scale ranging from 1= Disagree strongly, 5=Agree strongly. Low score on these items indicates low degree of resource heterogeneity in the industry, while a high score indicates high resource heterogeneity.

Table 4.9.
Resource Heterogeneity - Critical Success Factors (CSF)

1.	In our industry CSF is understood differently.
2.	Our competitors' CSF are different from our CSF.
3.	In our industry it is difficult to get access to CSF.
4.	In our industry it is difficult to develop our own CSF.

4.4.5. Resource Immobility

Resource immobility is an assumption that according to the Resource-Based View is considered a source of competitive advantage, while it is non-existent in the Industrial Organization perspective. According to Peteraf (1993:183), *"Resources are perfectly immobile if they cannot be traded".* In our broad search in the strategic management literature, there was no relevant measurement scale for this particular construct and we have therefore developed our own measurement scale in collaboration with experts in the hotel industry. Grant (2001) argues that immobility is an important element in a firm's effort to sustain competitive advantage. Further, he states that finances and information are easily required in financial markets, while resources and capabilities are more difficult to acquire or transfer. Geographical immobility is related to the cost of relocating large items of capital equipment and highly specialized employees (Grant 2001). This puts firms that want to acquire these resources at a disadvantage compared to firms that already possess them.

4.4.5.1. Critical Success Factors

The first dimension in our measurement scale is related to mobility barriers of resources that are Critical Success Factors (CFS). Although some resources are immobile in the industry our model focuses on the CSF that may lead to a competitive advantage within an industry due to

their immobility. If the waitresses in a hotel are considered an immobile resource, we have very little interest in studying their immobility, unless they are a source of competitive advantage and superior firm performance. Although CSF can be considered mobile, there can be limitations creating mobility barriers such as location and access to capital. The first item in Table 4.10 measures whether CSF can be acquired without substantial investments, making access to capital a mobility barrier. The second item is related to geographical immobility due to location or availability. The last two items measure whether CSF are difficult to acquire due to supplier exclusivity or because the CSF are specific for the firm. Supplier exclusivity may be related to good rates due to economies of scale or that the supplier only delivers certain products to a particular hotel. Examples of firm specific CFS may be a unique destination or a unique organizational culture. The informants are asked to evaluate if the CSF are difficult to acquire due to the listed mobility barriers in Table 4.10 on a Likert scale ranging from 1= Disagree strongly, to 5= Agree strongly. A low score indicates a mobile industry, while a high score indicates an immobile industry.

Table 4.10.
Resource Immobilty - Critical Success Factors (CSF)

1.	In our industry it is difficult to acquire CSF without substantial investments.
2.	In our industry it is difficult to acquire CSF due to location / availability.
3.	In our industry it is difficult to acquire CSF due to exclusivity to suppliers.
4.	In our industry it is difficult to acquire CSF because they are firm specific.

4.4.5.2. Tacit Knowledge

Nonaka (1994) argues that some of the knowledge within a company is tacit, making it less visible and hard to express. This knowledge is defined as *"[…] deeply rooted in action, commitment, and involvement in a specific context."* (Nonaka 1994:35). Due to its root in an individual or a team's action and experience, this knowledge can be hard to acquire for competitors and we therefore argue that tacit knowledge is an important aspect in resource immobility. The second dimension in our immobility scale is based on Zander & Kogut (1995), who measure tacit knowledge through 20 items in the following dimensions: Codifiability, teachability, complexity, and system dependency. Each of these dimensions contained one item that could be adapted to measure resource immobility in our empirical setting. The selected items address immobility through factors such as if it is easy for competitors to learn about the firm's CSF, and if CSF of the firm are complex. We also measure how easy it is to educate and train new employees, and whether a single employee can know everything about the firm's CSF.

The informants are asked to evaluate the statements in Table 4.11 on a Likert scale ranging from 1= Disagree strongly, to 5= Agree strongly. As these items measure explicit knowledge a low number indicates an immobile industry, while a high number indicates a mobile industry, and we therefore have to reverse the scale.

Table 4.11.
Resource Immobilty - Tacit Knowledge

5.	Our competitors can easily learn about our CSF by visiting our hotel.
6.	Educating and training new employees is a quick and easy job.
7.	It is possible for anyone in our firm to know everything about our CSF (reversed).
8.	Our CSF are not complex and therefore easy for competitors to acquire (reversed).

4.4.6. Strategy

The importance of strategy is acknowledged by both the Industrial Organization perspective and the Resource Based View (Spanos & Lioukas 2001). A good firm strategy and an attractive strategic position within an industry can provide competitive advantage which in turn affects firm performance (Jose & Ortega 2010, Porter 1980, Spanos & Lioukas (2001). Spanos & Lioukas (2001) measure the strategy construct through three dimensions focusing on the following competitive strategies: Innovative differentiation, marketing differentiation and low cost. These strategies capture both the differentiation and low cost aspects of strategy. Spanos & Lioukas' (2001) study was conducted in the manufacturing industry, and as our empirical setting is a service industry, the original scale has been adjusted to fit our empirical setting. Key informants are asked to indicate the extent to which each competitive method is used relative to competitors. All of the following strategy items are measured in a 5-point Likert scale with the following rating: 1= Much less than competitors and 5= Much more than competitors.

4.4.6.1. Innovative Differentiation

The first dimension measures items related to innovation. Spanos & Lioukas' (2001) original scale focused on research and development expenditures and product development and innovation. As these are aspects that are highly relevant for manufacturing firms but not as crucial for service firms, we had to make some adjustments to the items in this dimension. The research and development aspect were excluded from these items in order to simplify the questions. Additionally, the item measuring process innovations was replaces by an item measuring "Structural developments and upgrades", as our pre-test revealed that this was a better measure for innovative differentiation in the hotel industry. To further adapt the scale

to our empirical setting, we replaced "Rate of product innovations" with "Organizational development". The informants are asked to indicate the extent to which their firm uses each of the competitive methods in Table 4.12, rating from 1= Much less than competitors to 5= Much more than competitors. A high score indicates a competitive industry, while a low score indicates the opposite.

Table 4.12.
Strategy - Innovative Differentiation

1. Organizational development.
2. Product/service development.
3. Structural developments and upgrades.
4. Emphasis on being ahead of competition.

4.4.6.2. Marketing Differentiation

The second dimension focuses on marketing strategies. In this dimension we measure the firms focus on marketing and marketing techniques. In the adapted scale we have replaced "Innovations in marketing techniques" with "Digital marketing", as our pre-test revealed that the hotel industry is not an industry that is defined by innovative marketing techniques. Although it was suggested that a firm's performance is affected by the extent they use digital marketing. The pre-test also identified that repurchase is a critical success factor, and hotels therefore have an emphasis on organizing their marketing towards current customers. Due to this we made an adjustment from the original scale as we measure "Emphasis on marketing towards current customers" rather than "Emphasis on marketing department organization". A high score on the items in Table 4.13 indicate a competitive industry where marketing strategies play a vital role.

Table 4.13.
Strategy - Marketing Differentiation

5. Digital marketing / social media.
6. Advertising expenditures.
7. Emphasis on repurchases by current customers.
8. Emphasis on a strong sales force.

4.4.6.2. Low Cost

The last dimension targets methods to decrease production costs. Lower productions costs relative to competitors are likely to provide superior firm performance and are measured through capacity utilization, economies of scale and modernization of production and service processes. A high score on these items in Table 4.14 implies that the firm focuses on a low cost strategy.

Table 4.14.
Strategy - Low Cost

9.	Capacity utilization.
10.	Efforts to achieve economies of scale.
11.	Modernization and automation of production/service processes.

4.4.7. Firm Performance

Firm performance can be defined as a firm's level of success (Galbreath & Galvin 2008). In the strategic management literature firm performance is measured through various dimensions and items. The firm performance measurement in this study is adapted to capture how the other variables in our model affect firm performance and to identify how firms evaluate their performance relative to competitors. Considering whether to use an objective or subjective measurement for performance, we decided on the subjective approach to avoid missing data due to privacy concerns. Subjective performance measures have been used in several studies, and are proven as a good substitute for objective measures of performance (Galbreath & Galvin 2008, Spanos & Lioukas 2001, Venkatraman & Ramanujam 1987). Although it is important to consider the risk of the response being affected by biases such as limited knowledge about competitors when adapting subjective performance measures.

When developing measurement for this construct we reviewed the strategic management literature and adapted dimensions and items that are valuable for our study. Spanos & Lioukas (2001) divide their performance measurement scale into two dimensions measuring market performance and profitability. Their research reveals that firm assets and strategy have direct effects on market performance, while industry forces have a direct effect on both market performance and profitability. Profitability is Spanos & Lioukas' (2001) main performance measure, but they conclude that firm assets and strategy have an effect on profitability through market performance. As we are measuring independent constructs similar to Spanos & Lioukas' (2001), we will adapt their performance measure in our study and measure the effect our constructs have on both dimensions.

Spanos & Lioukas (2001) ask their key informants to evaluate their market performance and profitability over the last three years, but our pre-test revealed that a specific number could force the informant to do research and thus abort the survey. As our performance measure has a subjective approach we ask key informants to evaluate relative firm performance over the recent years. By using the term "recent years" we avoid short-time fluctuations.

4.4.7.1. Market Performance

The market performance measurement scale consists of the following items: sales volume, market share, growth in sales volume, and growth in market share. Two items measure current state of a firm's sales volume and market share, while the other items measure growth in sales volume and growth in market share compared to competitors over the last three years. We believe it can be confusing to respond to two items that are quite similar, and to make it easier for our informants we will use a single item measuring sales volume and a single item measuring market share. After pretesting Spanos & Lioukas' (2001) original scale, we concluded that growth in market share and growth in sales volume are better performance measures than the current state of sales volume and market share. This is consistent with Galbreath & Galvin (2008) who measure firm performance through growth in sales turnover and growth in market share. Key informants are asked to evaluate the items relative to competitors on a five point Likert Scale ranging from 1 = Much lower than our competitors to 5 = Much higher than our competitors. The market performance items are presented in Table 4.15.

Table 4.15.
Firm Performance - Market Performance

1.   Growth in market share.
2.   Growth in sales volume.

4.4.7.2. Profitability

The second dimension measures whether the firm has been less profitable or more profitable than competitors over the last three years. Spanos & Lioukas (2001) measure profitability through three items: profit margin, return on own capital and net profits. After pretesting Spanos & Liukas' (2001) original scale, we made some adjustments to better fit our empirical setting.

A high average room price is related to profitability in the hotel industry, and firms within the industry use this item as a financial ratio when comparing firm performance. Additionally, operating profit and net profit are frequently used financial ratios to compare profitability within the hotel industry. The informants are asked to evaluate their firm's average room price, operating profit and net profit compared to competitors over the recent years. The profitability items are presented in Table 4.16, and measured on a scale ranging from 1= Much lower than our competitors, to 5= Much higher than our competitors.

Table 4.16.
Firm Performance - Profitability

3.	The average room price.
4.	Our firm's operating profit.
5.	Our firm's net profit.

When analysing the data in Chapter 5, we will test the effect of the independent constructs and moderators on both market performance and profitability. In addition, we will combine these dimensions into one index measuring both aspects of firm performance, and the latter composition will be the ultimate measure for firm performance when testing our research model.

4.5. Data Collection

The data for this research was collected through a websurvey developed in MI Pro Research Studio 5, and distributed by Reisepol. The survey was sent to the 273 hotels within our sample frame and directly to key informants. The survey was available online for two weeks and the informants received a reminder after one week.

Web survey with self-selection sampling is the most frequent used method for collecting data in quantitative studies (Johannessen, Tufte & Christoffersen 2010). It is a quick and easy method for data collection as it can be distributed to a large number of informants in a short time. In addition, it provides a great amount of data without jeopardizing the key informants' anonymity. However, this method of data collection also has its limitations, especially related to the validity aspect. The questions have to be well-articulated and simple, so that they do not allow own interpretation or require further elaboration. This is also important as the researchers are not able to ask additional questions or ask the informants to elaborate their answers. We would also like to point out that although the survey is distributed to key informants, there is a possibility that the survey is conducted by someone else. This is a weakness compared to surveys or interviews conducted face-to-face or by phone.

Two weeks after the distribution of our survey, we had received 111 complete responses, while 150 were commenced but not completed. The number of completed surveys satisfies the target sample of > 98 according to Tabachnick & Fidell (2007).

5. Analysis and Results

In this chapter we present the results from our analysis conducted in IBM SPSS Statistics 20. Section 5.1 contains descriptive statistics of the constructs in the model. Descriptive statistics for each item is added as Appendix C. In Section 5.2 the measurement scales will be validated, and in Section 5.3 we present the results from testing our research model and hypotheses.

5.1. Descriptive Statistics

One of the key preconditions in a multivariate regression analysis is that all of the X-values are residual normally distributed (Berry 1993). This precondition will be examined by evaluating the skewness and kurtosis of each variable in our research model. Skewness indicates whether there is symmetry in the data, and extreme high or low skewness indicates that the statistical curve is leaning to one of the sides. For the data to be symmetrical, the curve should be shaped like a bell with a single peak around the mean. Therefore the skewness should be at 0 and Kaplan (1990) argues that values over 1 should be treated with caution. However, Kline (2011) believes that values below 3 are not extreme, and that only values exceeding this number should be treated with caution. The kurtosis refers to the peak of the curve and it should not be too narrow or broad. A symmetrical curve indicates that data is perfectly normally distributed and that it is equally distributed on each side of the mean, indicated by a kurtosis value at 0. Kaplan (1990) suggests that values exceeding 1 should be considered with caution, while Kline (2011) considers values exceeding 8 as extreme. Extreme values in skewness and kurtosis can cause unreliable results in accordance with the research model, and should therefore be excluded if possible.

Skewness and kurtosis of each item in our research model is reported in Appendix C. All of the items are evaluated as normally distributed. Only one item exceeds the values suggested by Kaplan (1990) in both skewness and kurtosis. "Customer service reputation" has a skewness of -1,693 and kurtosis of 4,422 according to Appendix C. This is a tangible asset that is an important aspect in measuring firm performance, and we therefore decided to keep this item as these values are well below extreme in accordance with Kline (2011). A few other items marginally exceeded the value of 1 in either skewness or kurtosis, but were kept as these values do not substantially differ from normal distribution (Kline 2011). In addition, the sum of items measuring a dimension or a variable will have better normality than single

items. Any measurement errors will be identified in our further analysis. Table 5.1 shows satisfactory normality of the "summates" that are used to test our hypotheses and research model.

Table 5.1.
Descriptive Statistics

	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
Industry Forces	123	3,1879	,27936	-,058	2,185
Competitive Rivalry	123	3,7154	,55748	,064	-,109
Power of Suppliers	123	3,0163	,56061	-,229	,936
Power of Buyers	123	2,9228	,46068	,042	,669
Threat of Substitutes	123	3,1016	,71132	-,451	,294
Threat of New Entrants	121	3,1818	,72169	,322	,137
Firm Resources	128	3,7410	,39716	-,322	-,226
Tangible Assets	128	3,2478	,57994	-,286	-,163
Intangible Assets	126	4,0079	,47057	-,407	,006
Capabilities	126	3,9782	,47225	-,444	,200
Strategy	124	3,1868	,40278	-,041	,736
Innovative Differentiation	124	3,2661	,57004	,116	,849
Marketing Differentiation	124	3,1492	,54467	-,284	,621
Low Cost	124	3,1452	,48879	,263	,271
Resource Heterogeneity	118	3,0805	,50940	-,386	,156
Resource Immobility	117	2,8910	,32018	-,189	,608
Critical Success Factors	117	3,0662	,38055	-,504	,097
Tacit Knowledge	116	2,7134	,49151	,138	-,311
Firm Performance	112	3,3378	,46604	-,245	-,104
Market Position	112	3,3750	,51334	-,343	,026
Profitability	111	3,3033	,61060	-,127	-,405
Valid N (listwise)	111				

Of the total 150 key informants that participated in the survey, 111 completed and answered all the questions related to our research model. Processing of missing data in the analysis can be dealt with in two ways: Listwise deletion or pairwise deletion. By using listwise deletion, the cases of missing data will be excluded, resulting in a reduction of total sample size. Pairwise deletion, on the other hand, only excludes values with missing data. This allows the analysis to use all the available data, making it advantageous for studies with small selections

such as ours. The risk of using pairwise deletion is that informants who aborted the survey could have considered the study as irrelevant or uninteresting, and thus not be motivated to respond in a satisfactory manner. However, 87 % of the informants participating in our study completed the survey, and skewness and kurtosis indicate that none of the values differ substantially from normality. Thus, we have decided to use pairwise deletion as we find the data provided by the remaining 13 % as relevant for our study.

5.2. Measurement Validation

To evaluate whether our measures are valid we will test the measurement scales in either a principal-component analysis or a factor analysis. In the following four sections we validate the formative measurement scales of industry forces, firm resources, resource heterogeneity, and resource immobility. In Section 5.2.5 we validate the reflective strategy measurement scale, and in Section 5.2.6 we validate our firm performance measures. When validating the scales using principal-component analysis or factor analysis, we applied direct oblimin rotated solution, excluded cases pairwise and excluded coefficients below .30.

5.2.1. Validation of the Industry Forces Scale

The industry forces variable consists of five dimensions representing the five forces that can threaten a firm's competitive advantage. The industry forces construct is considered formative as each item within each dimension determines the dimension and forms the construct (Bollen & Lennox 1991). For instance, one of the items measuring competitive rivalry is "Price competition is highly intense" and if this item increases, the competitive rivalry dimension increases, even though none of the other items in the dimension change.

To validate the industry forces scale, a principal-component analysis is conducted for each of the five dimensions. A principal-component analysis helps us to identify whether a dimension has more than one facet. If a dimension has more than one component, the items loading on each component are considered different facets, and are therefore weighted equally. As each facet is weighted equally, each dimension is also weighted equally, and the number of items in each facet or each dimension is therefore not crucial for the result of the analysis. However, dimensions with more than one component have to be carefully explored as there may not be a logical explanation for why one item is in a different component than the rest.

5.2.1.1. Competitive Rivalry

Competitive rivalry measures the intensity of the competitive environment within an industry. The first item in Table 5.2 is reversed, as a high score indicates low competitive intensity. The principal-component analysis shows that this dimension has two facets, of which the item in the second component measures the industry growth, while the remaining three items may seem more suitable to measure the competitive intensity. However, an industry with low or no growth is likely to be highly competitive due to limitations in the market and is

therefore a good indicator of competitive rivalry within an industry. It is not surprising that the items load on different components as they measure two very different aspects of competitive rivalry. The factor loadings in each facet are relatively high and none of the items are significantly disturbed by the other component. Since we consider both facets as important in measuring competitive rivalry, both will be included in the industry forces variable. The two components will be equally weighted.

Table 5.2.
Principal-Component Analysis of *Competitive Rivalry*

	Component	
	1	2
The industry is emerging.		,991
Firms in the industry compete intensely to hold and/or increase market share.	,792	
Competitve move incite reetaliation and counter moves.	,754	
Price competition is highly intense.	,814	

5.2.1.2. Power of Suppliers

The items measuring power of suppliers seem to cluster into two groups, of which the items in the first component relate to actual input that suppliers provide the industry with, while the items in the second component relate to the power of suppliers in general. Please see Table 5.3. Each facet is considered important for evaluating the power of suppliers, and each component will therefore be included and weighted equally.

Table 5.3.
Principal-Component Analysis of *Power of Suppliers*

	Component	
	1	2
The supplier's contribution is an important input into the industry.	,882	
Some suppliers give firms within our industry growth in demand.	,847	
The suppliers of raw and other materials do demand, and gain concessions.		,741
Suppliers or supplier groups are powerful.		,940

5.2.1.3. Power of Buyers

The result from the principal-components analysis of power of buyers is presented in Table 5.4. The item "The buyers are quality- and detail-oriented" has been reversed since customers that are quality- and detail-oriented are more concerned with quality than price. This gives hotels the opportunity to differentiate themselves from competitors and offer customers a quality product that they are willing to pay for, shifting the power to the hotel rather than the customers. As a comparison, customers that are more concerned with price have more power, as these customers have the option to choose the cheapest hotel. Hotels that cannot compete with low-price-hotels therefore lose power to the customers. The principal-component

analysis reveals that the bargaining power of buyers is divided into two components where all of the loadings are relatively high on the respective component. The first component relates to whether the customers are more concerned with price or quality, while the second component relates to who the customers are and their power in general. Both components will be included in the industry forces construct and weighted equally.

Table 5.4.
Principal-Component Analysis of *Power of Buyers*

	Component	
	1	2
There are a small number of buyers who form a large proportion of the sale in the industry.		,696
The buyers care more about price than quality.	,775	
The buyers are quality- and detail-oriented.	,818	
Buyers or buyer groups are powerful in the industry.		,781

5.2.1.4. Threat of Substitutes

Threat of substitutes consists of only one component, and as these items are considered to be measuring the same facet, all of the items will be included in the industry forces variable. Please see Table 5.5.

Table 5.5.
Principal-Component Analysis of *Substitutes*

	Component
	1
The industry makes products for which there are a large number of substitutes.	,810
All firms in the industry are aware of the competition from substitutes.	,933
Substitutes products limit the profitability.	,884
The industry's products serve functions which may be easily served by many other products.	,509

5.2.1.5. Threat of New Entrants

The results from the principal-component analysis of threat of new entrants are shown in Table 5.6. The three last items in the table have been reversed as they measure barriers to entry rather than threat from new entrants. If the entry barriers are high, the threat from new entrants will be low as there will be few new entrants in the industry. All of the items measure the same facet and will be included in the industry forces variable.

Table 5.6.
Principal-Component Analysis of *Threat of new Entrants*

	Component
	1
There is a lot of new entrants in the industry.	,670
Established firms have used substential resources to prevent new entrants.	,791
Retaliation towards new entrants is and has been strong.	,815
New entrants spend heavily to build up brand names and to overcome brand loyalties.	,571

5.2.1.6. Industry Forces Index

Based on the principal-component analysis, we created one index for each dimension and tested all of the dimensions in a principal-component analysis. The analysis revealed that all of the dimensions load on the same component as seen in Table 5.7.

Table 5.7.
Principal-Component Analysis of *Industry Forces*

	Component
	1
Competitive Rivalry	,585
Power of Suppliers	,603
Power of Buyers	,480
Threat from Substitutes	,706
Threats from new Entrants	,633

The industry forces scale was tested in a regression analysis, to see whether industry forces have an effect on profitability and market performance. A regression analysis is used to capture whether changes in the dependent variable (profitability or market performance) can be explained by changes in the independent variable (industry forces). Our analysis, presented in Table 5.8 revealed that industry forces did not have any significant effect on market performance, but explains 7,5% of the variance in profitability (R^2 = .075, p <.005).

Table 5.8.
Linear Regression Analysis of *Industry Forces*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5,217	,644		8,099	,000
Industry Forces	-,600	,201	-,275	-2,982	,004

We also tested different combinations of the industry forces scale based on the findings in the principal-component analysis. For example, we conducted a regression analysis including only one of the components measuring competitive rivalry, supplier power and buyer power, as all of the items in these dimensions consisted of more than one component. However, excluding some of the components in these dimensions did not improve the effect on neither market performance nor profitability significantly and we therefore decided to keep all of the items when creating the industry forces index, as all of the items had acceptable component loadings.

5.2.2. Validation of the Firm Resources Scale

The firm resources variable was constructed with three types of resources: Tangible assets, intangible assets and capabilities. Each of these dimensions contains different types of resources that we consider important in the hotel industry. The firm resources scale is considered formative as changes in a single item in one of the dimensions can result in changes in the entire construct independently from any of the other items. The purpose of using formative measures is to capture all of the aspects that may explain the latent variable (Bollen & Lennox 1991). Using as many items as we have in these dimensions, we get a comprehensive list of causes to firm performance. Through our analysis we want to identify the resources that have the biggest impact on firm performance and differentiate firms from each other. In our pre-analysis we included all of the items in a composition of a firm resources construct, but the result of this composition was poor and not significant, on neither market performance nor profitability. This indicate that only some of the resources have a significant effect on firm performance and these are likely to be the resources that lead to a competitive advantage in the hotel industry. When validating this scale we will therefore apply a different approach compared to the evaluation of the industry forces scale. We will use the principal-component analysis to identify the resources that are most important for explaining firm performance in the hotel industry, and use these particular resources in our further analysis. Pre-analysis also revealed that any composition of firm resources is only significant on market performance, which is similar to Spanos & Lioukas' (2001) results. We will therefore use this performance measure as our dependent variable to examine which resources impact firm performance.

5.2.2.1 Tangible Assets

The tangible assets divide into two components, as seen in Table 5.9. Based on the principal-component analysis of tangible assets, we created two indexes, and we tested the effect each of these indexes had on market performance. The two items loading on both components were included in the component with the highest loading. The indexes were also tested without these two items, as these are ambiguous.

Table 5.9

Principal Component Analysis of *Tangible Assets*

	Component	
	1	2
Investments in environmental measures	,787	
Access to capital	,638	
Technological investments in efficiency	,592	,464
Unique destination	,520	
Location		,800
Building and other physical structures		,633
Technological investments to improve customer experience	,455	,500

A regression analysis shows that none of these indexes have a significant effect on market performance. Further, we tested whether any of the items had an effect on market performance, and found that "Building and other physical structures" is the only single item that does as seen in Table 5.10. This item will therefore be used in our composition of the firm resources variable. This composition will be presented in Section 5.2.2.4.

Table 5.10.

Linear Regression Analysis of *Tangible Assets Component 2*

	Standardized Coefficients		
	Beta	t	Sig.
(Constant)		8,999	,000
Building and other physical structures	,343	3,537	,001
Location	-,093	-,981	,329
Technological investments to improve customer experience	-,029	-,308	,759

5.2.2.2 Intangible Assets

The intangible assets also divide into two components, of which component 1 measures the organizational aspect and component 2 measures reputation. Please see Table 5.11.

Table 5.11.

Principal-Component Analysis of *Intangible Assets*

	Component	
	1	2
Organizational structure	,805	
Shared organizational values	,801	
Regular customers	,737	
Organizational policies	,669	
Customer insight	,567	
Company reputation		,880
Customer service reputation		,660
Registered design		,441

None of these indexes have a significant effect on firm performance, and neither does single items. We believe this is due to the fact that the hotel industry is a service industry, where all of the intangible assets play a vital role for firm performance. It is therefore likely that all of the informants have ticked off high values, making it difficult for SPSS to separate hotel performance based on these resources. As the variations between these items are low, we choose not to include any of the tangible assets in our composition of the firm resources scale.

5.2.2.3 Capabilities

All of the capabilities items load on the same component as seen in Table 5.12.

Table 5.12.

Principal-Component Analysis of *Capabilities*

	Component
	1
The overall skills, creativity, and know-how of non-management employees of the firm	,822
The skills, expertise, and know-how of the managers of the firm	,645
Relationships with suppliers	,572
Relationships with customers	,571

We created an index including all of these items, and it proved to be significant in a linear regression analysis. Thus, we decided to use all of the capability items in our composition of firm resources in our further analysis. This composition is presented in the next section.

5.2.2.4. A new Composition of Firm Resources

Due to the discussion above, a new composition of firm resources has been created. It contains the items in Table 5.13.

Table 5.13.
A New Composition of *Firm Resources*

1. Buildings and other physical structures
2. The overall skills, creativity, and know-how of non-management employees of the firm
3. The skills, expertise, and know-how of the managers of the firm
4. Relationships with suppliers
5. Relationships with customers

A regression analysis reveals that firm resources explain 13,4% of the variance in market performance ($R^2 = .134$, p<.001), as seen in Table 5.14.

Table 5.14.
Linear Regression Analysis of *Firm Resources*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2,091	,315		6,648	,000
Firm Resources	,345	,084	,366	4,125	,000

a. Dependent Variable: Market Performance

The regression analysis also reveals that firm resources do not have an effect on profitability with a significant p-value. This is in accordance with Spanos & Lioukas (2001), where resources only had a direct effect on market performance and not profitability. In our further analysis we will examine whether resource characteristics can strengthen the effect firm resources have on market performance and profitability.

5.2.3. Validation of the Resource Heterogeneity Scale

The resource heterogeneity scale is considered formative as all of the items determines resource heterogeneity and form the construct. The variable consists of items measuring critical success factors (CSF). A principal-component analysis reveals that the dimension is divided into two components. Please see Table 5.15. The first component consists of items measuring the understanding of CSF, while the second consists of items measuring availability of CSF. Even though the two components measure different facets of the dimension, all of the items have relatively high loadings and are considered important aspects

of the dimension. All of the items will therefore be included when measuring the moderating effect of resource heterogeneity and the two facets will be weighted equally.

Table 5.15.
Principal-Component Analysis of *Resource Heterogeneity*

	Component	
	1	2
In our industry CSF is understood differently.	,889	
Our competitors' CSF are different from our CSF.	,740	
In our industry it is difficult to get access to CSF.		,709
In our industry it is difficult to develop our own CSF.		,893

5.2.4. Validation of the Resource Immobility Scale

The Immobility scale is formative as different items are indicators of the latent variable. This variable was constructed with two dimensions, of which one measures CSF and the other tacit knowledge. We will develop indexes for each of the dimensions and one complete for the entire variable. This will allow us to test the moderating effect of each of the dimensions, as well as the latent variable.

5.2.4.1 Critical Success Factors

This dimension is divided in two components as seen in Table 5.16. Component 1 seems to include items measuring specificity/exclusivity, while component 2 seems to consist of investment and location items. Both of these components are important aspects of immobility, and as all of the items have high values, all of them will be included when forming an index for this dimension, and the two facets will be weighted equally.

Table 5.16.
Principal-Component Analysis of *Critical Success Factors (CSF)*

	Component	
	1	2
In our industry it is difficult to acquire CSF due to exclusivity to suppliers	,827	
In our industry it is difficult to acquire CSF because they are firm specific	,790	
In our industry it is difficult to acquire CSF without substantial investments		,882
In our industry it is difficult to acquire CSF due to location / availability		,515

5.2.4.2 Tacit Knowledge

All of the items in Table 5.17 have been reversed, so that they measure tacit knowledge, rather than explicit knowledge. The items in this dimension seem to cluster into two groups, of which the first component includes items related to the firm's CSF, while the second component consists of one single item measuring training of new employees. All of these

items have high loadings and are important indicators of resource immobility, and will therefore be included in the index. However, it should be stated that the three items loading on the first component will be weighted equally to the single item loading on the second component.

Table 5.17.
Principal-Component Analysis of *Tacit Knowledge*

	Component	
	1	2
Our competitors can easily learn about our CSF by visiting our hotel	,780	
Our CSF are not complex and therefore easy for competitors to acquire	,659	
It is possible for anyone in our firm to know everything about our CSF	,587	
Educating and training new employees is a quick and easy job		,900

5.2.5. Validation of Strategy – A Reflective Measurement Scale

Strategy is another independent variable that we expect to affect firm performance. This construct consists of three dimensions and the items within each dimension are outcome of the theoretical construct, and therefore reflective (Bollen & Lennox 1991). As the scale is reflective, convergent validity will be used to validate the items. Convergent validity refers to the extent to which all items developed to reflect a latent variable actually reflect it. Items that measure the same concept should have factor loadings that are correlated with each other and reflect the same attribute, as this indicate a high degree of convergent validity. Requirements for the factor loadings vary, but a minimum of .50 is recommended by several researchers (Bagozzi & Yi 1988, Hair, Anderson, Tatham & Black 1998). We will therefore use .50 as a minimum requirement in factor loading for items to be considered valid, which means that items with factor loadings lower than this will be rejected.

5.2.5.1. Innovative Differentiation

In the innovative differentiation dimension all of the items load on one factor but only two of the items meet the requirement of a valid factor loading as seen in Table 5.18. The removed items were Product/Service development" and "Organizational development". The hotel industry is a competitive service industry and this may be the reason for why the focus is on processes and being ahead of competitors rather than product development. We believe organizational development received a low score because CEO's of individual hotels within a chain responded to the survey, and their main focus may not be on organizational development. If this question was responded by the CEO's of the hotel chains, we assume the score would be much higher.

Table 5.18.

Factor analysis of *Innovative Differentiation*

	Factor
	1
Emphasis on being ahead of competition	,721
Structural development and upgrades	,536
Product/Service development	-
Organizational development	-

5.2.5.2. Marketing Differentiation

In the marketing differentiation dimension, three items were removed due to low factor loadings. Please see Table 5.19. In the hotel industry customer acquisition is mainly done by using digital marketing in search engines etc., and according to our analysis it seems that this aspect is what differentiates the hotels marketing strategies. The excluded items are methods less frequently used and therefore received a low score. Although we only used one item from this dimension we believe this is the most essential in our empirical setting, and this is also reflected by the high factor loading.

Table 5.19.

Factor analysis of *Marketing Differentiation*

	Factor
	1
Digital marketing / social media	,961
Advertising expenditures	-
Emphasis on strong sales force	-
Emphasis on repurchases by current customers	-

5.2.5.3. Low Cost

In the low cost dimension only one item meets the requirement of a factor loading >.50, as seen in Table 5.20. As mentioned in the innovative differentiation dimension, the hotel industry is focused on processes to gain a competitive advantage, and modernization and automation of production and services is considered the best low cost strategy to achieve such position. The reason this item received such high factor loading, and capacity utilization and efforts to achieve economies of scale did not meet the factor loading requirement, may be because the survey was responded by individual hotels within a chain and modernization and automation may be the only way a single firm within the industry is able to cut costs. It is likely that the other items would have received a higher factor loading if the survey was

responded by CEO's of the hotel chains, as capacity utilization and economies of scale are easier to obtain for an entire hotel chain, than a single hotel.

Table 5.20.

Factor analysis of *Low Cost*

	Factor
	1
Modernization and automation of production/service processes	,999
Efforts to achieve economies of scale	-
Capacity utilization	-

5.2.5.1. A new Composition of the Strategy Variable

To summarize the results of the factor analysis, the strategy variable consists of the 4 items in Table 5.21 and a new variable will be constructed and used in further analysis. A factor analysis of these items reveals that they are all loading on the same factor and have factor loadings that meet the requirement of >0.50.

Table 5.21.

Factor analysis of *Strategy*

	Factor
	1
Modernization and automation of production/service processes	,516
Structural development and upgrades	,510
Emphasis on being ahead of competition	,829
Digital marketing / social media	,592

A linear regression analysis of the new strategy composition reveals that strategy has the most significant effect on market performance. According to the analysis, strategy explains 12,2 % of the variance in market performance (R^2 = .122, p<.001) as seen in Table 5.22.

Table 5.22.

Linear Regression Analysis of *Strategy on Market Performance*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2,413	,250		9,647	,000
Strategy	,299	,076	,350	3,912	,000

a. Dependent Variable: Market Performance

Strategy also has a direct effect on profitability, however, the analysis reveals that it only explains 4,7% of profitability and the significance level is also less desirable (R^2 = .047, p<.05) as seen in Table 5.23.

Table 5.23.
Linear Regression Analysis of *Strategy on Profitability*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,592	,311		8,323	,000
	Strategy	,221	,095	,217	2,325	,022

a. Dependent Variable: Profitability

5.2.6. Validation of the Firm Performance Scale

In accordance with Spanos & Lioukas (2001) firm performance was divided into a market performance dimension and a profitability dimension. A principal-component analysis of each of these dimensions reveals that both dimensions only represent one facet, see Tables 5.24 and 5.25.

Table 5.24.
Principal-Component Analysis of *Market Performance*

	Component
	1
Growth in market share	,793
Growth in sales volume	,793

Table 5.25.
Principal-Component Analysis of *Profitability*

	Component
	1
The average room price	,481
Operating profit	,926
Net profit	,927

Pre-analysis revealed that industry forces have the most significant effect on profitability, while firm resources and strategy have the most significant effects on market performance. When testing our research model in Section 5.3, we will test the effect of these three constructs on both market performance and profitability. Additionally, we will test the research model in its entirety using firm performance, consisting of both market performance and profitability, as a dependent variable. A principal-component analysis of both dimensions reveals that the firm performance variable loads on the same component. Please see Table 5.26.

Table 5.26.

Principal-Component Analysis of *Firm Performance*

	Component
	1
Market Performance	,829
Profitability	,829

In accordance with Spanos & Lioukas (2001) we also tested whether market performance has a direct effect on profitability and found that it explains 14% of the variance in profitability with a standardized regression coefficient of .374, as seen in Table 5.27. This finding implies that as firm resources and strategy that have a direct effect on market performance, they also have an indirect effect on profitability. This finding is similar to Spanos & Lioukas (2001).

Table 5.27

The effect of Market Performance on Profitability

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,801	,361		4,994	,000
	Market Performance	,445	,106	,374	4,212	,000

a. Dependent Variable: Profitability

5.2.7. Discriminant Validity

Discriminant validity ensures that the constructs in the model are non-redundant. According to Berry (1993), the absence of multicollinearity is an important requirement when conducting regression analysis. Correlation between the constructs should be < 0.6 for small samples according to Hair et. al. (1998). By conducting a bivariate correlation analysis including all of the constructs in the model, we are testing whether this regression requirement is satisfied. The correlation matrix in Table 5.28 shows that all of the significant correlations are < 0.6, and thus, the discriminant validity of the constructs are satisfactory.

Table 5.28.

Discriminant Validity

	Firm Performance	Market Performance	Protitability	Industry Forces	Firm Resources	Strategy	Heterogeneity
Industry Forces	-.217**	-.076	-.275***				
Firm Resources	.252***	.366***	.072	.153*			
Strategy	.333***	.350***	.217**	-.019	.212**		
Heterogeneity	.096	.164*	.015	.107	.075	.219**	
Immobility	.030	.122	-.061	-.011	.036	.210**	.150

* denotes p < .10, ** denotes p < .05, *** denotes p < .01. (1-tailed)

5.2.8. Reliability

The reliability analysis shows the internal consistency of the sum of the items within a concept and whether the data contains errors (Mitchell & Jolley 2010). Reliability differs from validity as items can have consistency without being valid in the sense that they measure the latent variable. Various methods can be used to analyze the reliability, but Cronbach α is the most common method (Bollen 1989). Cronbach α is a result of the number of items and the average internal correlation between them. It should be higher than 0.7 to be considered reliable, but values below 0.6 are accepted (Nunnally 1978). Nevertheless, this common method does hold weaknesses. It does not take into account cross-loadings and overestimates the effect of the number of items. Still we find Cronbach α as an appropriate measure for testing reliability in our research model. The results are reported in Table 5.29.

Table 5.29.
Reliability Analysis

Construct	Indicators	Cronbach α
Industry Forces	20	0.68
Firm Resources	4	0.68
Strategy	4	0.67
Heterogeneity	4	0.72
Immobility	8	0.38

The analysis shows that all of the constructs in our research model, except one, are over the accepted requirement of 0.60. Resource immobility has a low score that indicates that this construct does not meet the requirements of a reliable measurement scale, and thus makes a test of moderating effects of this construct arbitrary and uncertain. By removing this construct we strengthen our analysis and avoid a non-reliable measure affecting the results. The resource immobility construct will therefore be excluded from further analysis.

5.3. Test of the Research Model and Results

To test our research model and hypotheses, multiple regression analysis was conducted. A regression analysis reveals whether changes in the dependent variable (Y) can be explained by changes in the independent variable (X). In Section 5.3.1 we test the effect the independent variables; industry forces, firm resources and strategy have on firm performance. This involves a test of Hypothesis 1, 2 and 5. In Section 5.3.2 we test our entire research model by including the moderating effect of resource heterogeneity (H3a and H3b). We end this chapter with a summary of our research analysis in Section 5.3.3.

5.3.1. Preliminary Analysis

A linear regression analysis reveals that industry forces have a significant effect on profitability, while firm resources and strategy have a significant effect on market performance. This is in accordance with Spanos & Lioukas (2001) who also found that elements from industry forces have the most significant effect on profitability, while firm resources and strategy have the most significant effect on market performance. After computing the performance dimensions into one index: firm performance, we tested our research model without the moderators. The regression analysis shows that all of the independent constructs have a significant effect on firm performance. Table 5.30 presents the impact the independent variables have on the various performance measures. The analysis also reveals that industry forces, firm resources and strategy explain 19,3% of the variance in firm performance (p <.01).

Table 5.30.
Linear Regression Analysis of the Independent Variables

	Market Performance		Profitability		Firm Performance	
	Standardized Estimate	% Explained Variance (R^2)	Standardized Estimate	% Explained Variance (R^2)	Standardized Estimate	% Explained Variance (R^2)
		.226***		.125***		.205***
Industry Forces	-.121		-.282***		-.247***	
Firm Resources	.326***		.074		.231**	
Strategy	.278***		.196**		.279***	

* denotes $p < .10$, ** denotes $p < .05$, *** denotes $p < .01$. (1-tailed)

These findings indicate that three of our hypotheses are supported. According to H1, industry forces have a negative effect on firm performance, and as the beta value is negative and the correlation is significant ($p < .01$), H1 is supported. H2 states that firm resources have a positive effect on firm performance, and as the beta value is positive and significant ($p < .05$);

we find support for H2. Similar to H2, we expected strategy to have a positive effect on firm performance, and thus H5 is supported (p < .01).

According to H3 resource heterogeneity has a negative moderating effect on the relationship between industry forces and firm performance, and a positive moderating effect on the relationship between firm resources and firm performance. In the following analysis, we examine different models including the independent variables and the moderating effect of resource heterogeneity in a regression analysis. In Table 5.31 we summarize the different models that were examined. In M1 we tested the direct effects of the independent variables on firm performance. This model is similar to the model presented in Table 5.30. In M2 we included the moderating effect of resource heterogeneity and examined its effect on firm performance. H1, H2 and H5 are also supported in this model, although the beta values differ as we have included resource heterogeneity in this model. As our pre-analysis in Section 5.2 revealed that our constructs affected different performance measures, we analysed the effect all of the constructs have on market performance in M3 and profitability in M4. Although M3 has the best R^2, the significance levels for all of the constructs are best in M2, and we therefore present this model in the next section.

Table 5.31.
Summary of Regression Analysis

Hypotheses	Model 1	Model 2	Model 3	Model 4
	Direct effects on Firm Performance	Direct + moderating effects on Firm Performance	Direct + moderating effects on Market Performance	Direct + moderating effects on Profitability
	Standardized Beta	Standardized Beta	Standardized Beta	Standardized Beta
H1: Industry Forces	-.247***	-.248***	-.135*	-.273***
H2: Firm Resources	.231***	.282***	.375***	.109
H3a: Heterogeneity (IO)		.221**	.169*	.194**
H3b: Heterogeneity (RBT)		.148*	.050	.179**
H5: Strategy	.279***	.273***	.258***	.203**
Explained Variance, R^2	.205***	.256**	.258***	.173***

* denotes p < .10, ** denotes p < .05, *** denotes p < .01. (2-tailed)

5.3.2. Testing the Research Model

In Figure 2 we present the results from testing the research model. This model includes all the significant correlations between independent variables, moderators and dependent variable that were identified in our analysis.
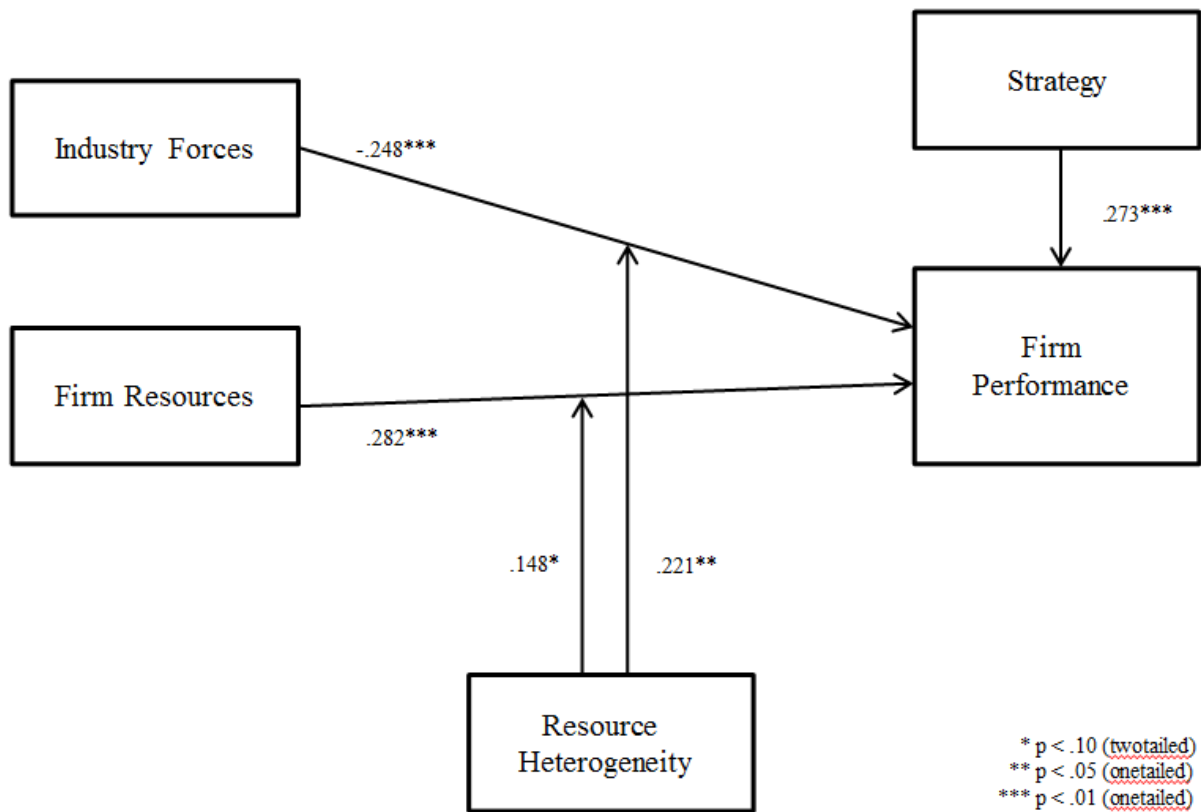
Figure 2: Results from testing the research model

H1 is supported as standardized regression coefficient of industry forces is -.248 (p<.01). This indicates that industry forces have a negative effect on firm performance as the hypothesis suggested. Firm resources have a positive effect on firm performance as with a standardized regression coefficient of .282 (p<.01), supporting H2.

H3a suggests that the higher the degree of resource heterogeneity, the lower the contribution of industry forces on firm performance. This hypothesis is not supported as the standardized regression coefficient is .221 (p<.05), suggesting a positive effect. This is an interesting result that we studied in a two-group correlation analysis as we wanted to see if the results were consistent. Please see table 5.32. In accordance with our theoretical framework, low degree of resource heterogeneity should indicate homogeneity, and therefore change the outcome. The correlations of the group with low heterogeneity and the group with high heterogeneity are quite similar. This indicates that the contribution of industry forces is unaffected by the degree of resource heterogeneity. Although when we examine the groups with extreme resource heterogeneity (> 3.5) and extreme low heterogeneity (< 2.6), the results show that the group with extreme resource heterogeneity has a considerably higher correlation between

industry forces and firm performance. Implications based on this will be discussed in Chapter 6.

Table 5.32.
Correlations between Industry Forces and Firm Performance

	N	Pearson correlation
High resource heterogeneity (> 3.1)	55	-.243**
Low resource heterogeneity (< 3.1)	57	-.214*
Extremely high resource heterogeneity (> 3.5)	17	-.351*
Extremely low resource heterogeneity (< 2.6)	22	-.274

*denotes < .10 **denotes < .05 (2-tailed)

H3b is supported as the variable shows a positive moderating effect of firm resources with a standardized regression coefficient of .148 (p<.10). Support for this hypothesis confirms that high degree of resource heterogeneity in an industry increases the contribution of firm resources on firm performance.

Due to reliability issues discussed in Section 5.2.8, the moderating effect of resource immobility was excluded compared to the original research model. Thus, H4a and H4b are not supported. Strategy has a significant effect on firm performance with a standardized regression coefficient of .273 (p<.01), providing support for H5.

The research model presented in Figure 2 explains 25,6 % of the variance in firm performance (R^2 = .256 p <.001), which is considered acceptable. Based on this we conclude that our model explains a relatively big part of variance in the dependent variable. The results are based on a linear regression analysis of direct and moderating effects on firm performance. The implications of these findings will be discussed in Chapter 6. In Table 5.32, we have summarized our results:

Table 5.33.
Summary of Results

Hypotheses		Direction	Supported	Beta	T
H1:	Industry Forces → Firm Performance	-	Yes	-.248***	-2.872
H2:	Fim Resources → Firm Performance	+	Yes	.282***	2.996
H3a:	Industry Forces * Heterogeneity → Firm Performance	+	No	.221**	2.357
H3b:	Fim Resources * Heterogeneity → Firm Performance	+	Yes	.148*	1.588
H4a:	Industry Forces * Immobility → Firm Performance		No		
H4b:	Fim Resources * Immobility → Firm Performance		No		
H5:	Strategy → Firm Performance	+	Yes	.273***	3.091

* denotes p < .10, ** denotes p < .05, *** denotes p < .01. (2-tailed)

6. Discussions and Implications

In this master thesis we have addressed two acknowledged theoretical contributions in the field of strategic management, Porter's (1980) Industrial Organization theory and Barney's (1991, 1997) Resource Based View. The purpose of our study was to increase the understanding of sources that lead to superior firm performance, and examine how industry forces and firm resources affect firm performance. In addition we wanted to test the fundamental assumptions in both theories. Based on this we developed the following research question: To what degree do IO and RBV predictions explain firm performance, and how do an industry's resource characteristics moderate this relationship?

We further developed a research model and hypotheses that were empirically tested in the hotel industry in Norway. The results identified through our analysis support the following hypotheses: Industry forces (H1), firm resources (H2) and strategy (H5) affect firm performance, while resource heterogeneity moderates the relationship between firm resources and firm performance positively (H3b). Additionally, we found that resource heterogeneity moderate the relationship between industry forces and firm performance positively, a finding in conflict with our hypothesis as we expected a negative moderating effect on this relationship. In this chapter we discuss theoretical and managerial implications of our findings. Theoretical implications are presented in Section 6.1 and managerial implications in Section 6.2. This master thesis ends with a summary of limitations in our study and suggestions for future research in Section 6.3.

6.1. Theoretical Implications

The findings reported in our analysis support the hypotheses concerning the direct effects on firm performance. Industry forces have a negative effect on firm performance, which is in accordance with previous studies (McGahan & Porter 1997, Powell 1996, Rumelt 1991, Schmalansee 1985 and Wernerfelt & Montgomery 1988). However, these industry forces only have a significant effect on profitability, and not on market performance. This indicates that strong industry forces reduce a firm's profitability although its market position is unaffected, as these industry forces will affect all firms within the industry. Our test of how each of the forces affect firm performance shows that neither power of suppliers nor power of buyers have a significant effect. Competitive rivalry however, is significant on market performance, a result similar to Spanos & Lioukas' (2001). We believe that a firm's market position is related to competitive rivalry, making it a good measure for market performance. These findings indicate that only certain elements from PIO affect firm performance. Spanos & Lioukas (2001) conducted their study in a manufacturing industry and the profitability was only significantly affected by power of suppliers. Firms operating in these types of industries are more dependent on suppliers than in service industries. Therefore we believe that suppliers pose less of a threat in the hotel industry, which makes suppliers less powerful. Thus it is possible to question whether Porter's five forces are a relevant measure for all types of industries. Based on our results, together with Spanos & Lioukas (2001), we argue that using certain elements from Porter's five forces may contribute to more accurate results.

To draft a sufficient overview of resources that are relevant in the hotel industry, we divided these into three dimensions; Tangible assets, intangible assets and capabilities. This was in accordance with previous studies such as Spanos & Lioukas and Galbreath & Galvin's (2008), although we had to adapt the items in compliance with our empirical setting. When analyzing the data, we wanted to use resources that had a significant effect on firm performance. As none of these items had a direct effect on profitability, we used market performance as the performance measure, which is in accordance with Spanos & Lioukas' (2001) results. We argue that market position is determined by unique resources as these separate firms from one another. Further, a linear regressions analysis shows that market performance has a direct effect on profitability, once again supporting Spanos & Lioukas' (2001) results. Unlike Spanos & Lioukas (2001) and Galbreath & Galvin (2008) who only test resources as an entity or dimension, we tested the effect of each of the resources as well.

This allowed us to identify specific resources that are important in the hotel industry. Although these are related to a specific context and may not have a theoretical contribution, they do provide insight to a managerial view and will therefore be discussed in Section 6.2.

Our results concerning the direct effects of industry forces and firm resources on firm performance are quite similar to Spanos & Loukas (2001), as our study is based on their article. Although, we argue that our study has found support for several sub-effects that were non-significant in their study, making ours more accurate. In addition, our contribution targets service industries rather than manufacturing industries.

In our theoretical framework we discussed that PIO and RBV are considered competitive as PIO has an "outside-in"-perspective, while RBV has an "inside-out"-perspective. Additionally, the theories are built on fundamental assumptions that are opposite of each other. Despite these differences we also discussed a complementary view of the theories to explain firm performance in accordance with Drnevich & Kriauciunas (2011), Spanos & Lioukas (2001) and Tuan & Mai (2012). Our results support a complementary view indicating that both of the perspectives explain firm performance, although through different performance measures. As PIO explains profitability and RBV explains market performance, and these are two different but important aspects of performance, we argue that PIO and RBV indeed are complementary. In Figure 3 we present this complementary view of PIO and RBV.
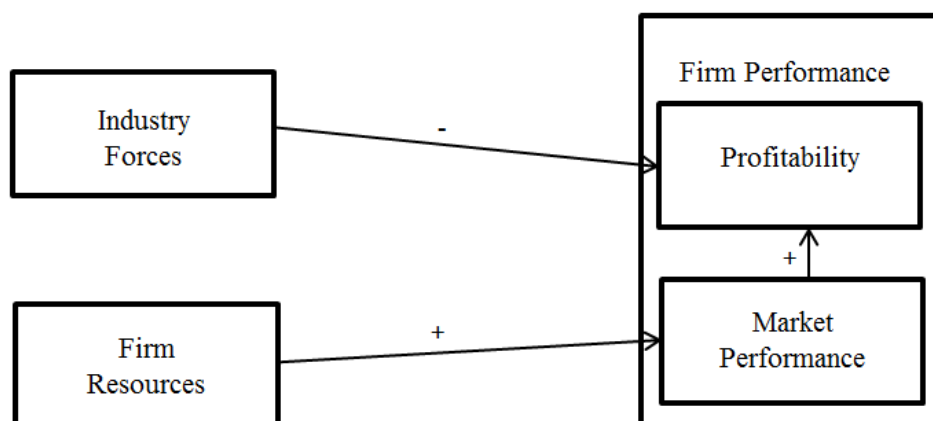
Figure 3: A Complementary View of PIO and RBV

Our analysis also reveals a certain connection between internal and external factors. As neither power of suppliers nor power of buyers has an effect on firm performance, while

relations with suppliers and customers are considered important resources in explaining firm performance, we argue that there could be a correlation. If increased focus on these resource capabilities helps neutralizing the threat of industry forces, this study can contribute to greater understanding of how these perspectives are directly related and thus reinforce the assumption of a complementary view of the theories. Managerial implications based on this will be discussed in Section 6.2.

The direct effect of strategy on firm performance is also supported and according to our analysis variance in firm performance is better explained when strategy is included. This finding is in accordance with Spanos & Lioukas (2001), as they found support for both direct and indirect effects of strategy on firm performance. This construct includes methods that are based on elements from both PIO and RBV, and we will suggest managerial implications that are based on strategic activities related to our findings in Section 6.2.

Our most important contribution to existing theory is related to resource characteristics. As discussed in the theoretical framework this topic lacks empirical research and we identified a gap concerning how resource heterogeneity and resource immobility affect firm performance. In addition it examines how the fundamental assumptions in both PIO and RBV match an empirical setting. As RBV considers resources as unique, we expected resource heterogeneity in the industry to increase the effect of firm resources on firm performance. This hypothesis was supported and reinforces the fundamental assumptions in RBV, supporting Barney's (1997) theory which suggests that if resources are valuable and rare, they contribute to superior firm performance. We expected resource heterogeneity in the industry to weaken the relationship between PIO and firm performance as the fundamental assumptions in PIO argue that resources are homogenous. High degree of resource heterogeneity therefore makes firms less comparable and less sensitive to industry forces. Thus, firms are less responsive to changes in the industry that would otherwise affect its performance. Although, our results show that resource heterogeneity has a positive effect on this relationship, implying that the negative effect of industry forces increases if the industry is characterized by resource heterogeneity. Further analysis shows that both high degree of resource heterogeneity and low degree contribute to reinforcement of the negative effect on firm performance, although the latter scenario was expected. However, when studying the effect of extreme high resource heterogeneity versus extreme low resource heterogeneity, extreme high resource heterogeneity has a greater effect on the relationship between industry forces and firm performance. As we considered extreme low heterogeneity to be equivalent to homogeneity,

this is a conflicting result. It also questions whether resource heterogeneity is a better characteristic for an industry with strong industry forces, and thus implies that the fundamental assumptions in PIO are wrong. The hotel industry is an industry with specific traits, especially concerning industry forces. We will therefore not argue strongly for a dismissal or reformation of PIO, but this is an interesting finding that definitely needs further research.

We are unable to contribute to theoretical implication regarding immobility as a resource characteristic, as items measuring this moderator did not pass the reliability test. Nevertheless, our findings may give new insight to the RBV theory. Barney's VRIO-framework has traditionally been viewed as a combination of valuable, rare, non-imitable and well organized resources (Barney 1997). Even though immobility was excluded from our research model, we found that the effect of firm resources is stronger if the resources in the industry are characterized as heterogeneous, than if they are not. This finding may imply that the VRIO framework can be viewed as a multiplier rather than a combination of all of the four criteria (V*R*I*O), and that it is possible to achieve superior firm performance even though the firm only possesses valuable and rare resources (V*R). Perhaps the combination of valuable and unique resources is the core of the RBV theory, and that inimitability and a good organization of the resources is implicit in resources that are valuable and rare, implying that these two criteria do not add anything extra in most empirical contexts? With better measures for resource immobility this is a potential reformation of the VRIO-framework that may be interesting for further research.

The main theoretical contribution of our study is that it supports previous empirical studies related to the effect of industry forces, firm resources and strategy on firm performance. Additionally, we formed a theory related to the moderating effect resource characteristics may have on the established relationships between industry forces and firm performance, and firm resources and firm performance. Even though all of our hypotheses were not supported, this thesis should inspire other researchers to conduct further research on the phenomena addressed in this thesis, as sufficient empirical testing is required.

6.2. Managerial Implications

The purpose of this thesis was to increase understanding of factors and resources that lead to superior firm performance, and how firms within an industry can gain a competitive advantage. Our analysis reveals that both industry forces and firm resources have a significant effect on firm performance. Managers should therefore focus on both aspects to gain a competitive advantage and improve their firm performance. In addition, the firm's strategy also has a significant effect on firm performance and we therefore suggest that a firm's strategy should consider both internal and external factors that have an effect on firm performance.

As industry forces have a direct effect on profitability, the ideal strategy for a firm would be to adjust these forces to optimize their profit. But due to the nature of industry forces they are an external factor, and cannot be determined by a single firm. Market performance however, is mainly affected by firm's resources and its strategy. Both of these are internal factors that are dynamic and can therefore be the source of competitive advantage. Firms seeking a superior performance should therefore focus on developing a strategy that exploits the potential of the firm's resources in the market they want to excel in. This can be done by adapting a SWOT-analysis where strengths, weaknesses, opportunities and threats are considered. A general analysis like the SWOT-analysis will make managers aware of internal and external factors in the firm and industry. Further, actions to improve firm's market performance and profitability should depend on how these factors affect firm performance. In the following sections we will address different types of industries and how strategic activities can contribute to competitive advantage within those particular industries.

Industries that have strong industry forces and weak firm resources, lack valuable and rare resources and are therefore characterized by homogenous resources. Firms that consider entering this industry should be aware of threats in the industry, and have an entering strategy that neutralizes disadvantages. Managers in these firms must identify which of the forces pose the biggest threat. If the competitive rivalry for instance is high, the manager has to figure out how their firm can gain market share. The biggest challenge for a new firm in this type of industry is that it cannot compete based on internal factors, unless it enters with resources that will revolutionize the industry. For instance, Apple Inc. entered the mobile phone industry with a smart phone that changed the industry and gave them an advantageous

position, although this was a market with strong industry forces and relatively homogeneous resources. But as this industry is characterized by homogeneous resources, their product was rapidly met with equivalent products. But even today, their position in this industry is outstanding although there is fierce competition and extreme low degree of resource heterogeneity as all of the firms within the industry buy components from each other. What separates Apple from its competitors today are their strategic activities. By using innovative and marketing differentiation, they can gain a competitive advantage, although their resources are similar to the rest of the industry. Larger firms can also exploit economies of scale to subject smaller firms with a cost disadvantage. This way firms can outperform their competitors and potentially increase their own market share.

Industries with weak industry forces and strong firm resources are characterized by resource heterogeneity. If the firm resources are valuable and rare, they may provide a competitive advantage and superior performance. As weak industry forces imply that threat from new entrants are low a firm wanting to enter such an industry has to consider the firm's strengths and weaknesses and evaluate whether the firm can bring something unique, as the present firms in the industry probably have solid market shares. Strategies for firm that already are a part of this type of industry should focus on exploiting internal resources to gain or maintain a competitive advantage. As other firms do not possess the same resources as your firm, developing resources or capabilities that are valuable and rare will provide a competitive advantage. If the firm can maintain the resource heterogeneity and prevent competitors from acquiring the resources they possess, a sustained competitive advantage may be achieved. Although in accordance with our results, extreme resource heterogeneity increases the contribution of industry forces. An example that illustrates this perfectly is the Norwegian liquor industry, where Vinmonopolet is the only retail channel. Vinmonopolet has had a monopoly for decades as their only threat are substitutes such as beer and cider, which allows them to set high prices and increase the profitability. However, over the recent years this extreme resource heterogeneity has led an increasing number of Norwegians to import their liquor from the neighboring countries. Although it is illegal to exceed certain quotas, it illustrates how far consumers are willing to go to avoid a market with extreme resource heterogeneity. Thus, industry forces are reinforced and profitability decreases.

Industries characterized by both low degree of industry forces and homogenous firm resources, offer opportunities. For new entrants it will be easy to enter such and industry and achieve performance parity, but to gain a competitive advantage in such an industry it will

have to revolutionize the industry. As the industry forces are low, the optimal strategy for a firm will be to develop or acquire unique resources that separate their firm from competitors. This applies to both existent firms in the industry and new entrants. Firms within such an industry can develop multi-concept chains to increase the amount of differentiation and resource heterogeneity. For instance hotel chains such as Choice Hotels use various brands such as Comfort, Quality and Clarion. Similar strategies can be found in the retail industry with for instance Norgesgruppen's multiple store concepts. If a firm can develop concepts that make their resources extreme heterogeneous, it will differentiate itself as the remaining firms have homogeneous resources. By revolutionizing the industry in such a manner, it will provide a competitive advantage similar to the previously discussed industry. Further, if its competitors fail to keep up with the development, the firm can gain a superior market position making it dominant and providing a sustained competitive advantage. Thus, we see that changes in industries can lead to transition to industries with different resource characteristics.

In industries where both industry forces and firm resources are considered strong, the industry is characterized by external threats and resource heterogeneity. Firms wanting to enter such an industry must do a thorough job in identifying threats and possibilities in the industry. Additionally, they have to evaluate their strengths and weaknesses accordingly. This is the type of industry that is the most complicated as strong degree of both industry forces and firm resources implies that there are many factors to consider, and that a complex strategy is required. Further, a firm has to be prepared to adjust its strategy continuously as changes will occur regarding the degree of each of these perspectives. Our analysis reveals that extreme heterogeneity increases the effect of both industry forces and firm resources on firm performance. This implies that valuable and rare resources contribute to superior firm performance, but that it also makes the threats from industry forces stronger which in turn impairs the profitability. The social media industry can be categorized into this type of industry. Firms as Twitter, Facebook and LinkedIn are firms with extreme heterogeneous resources due to their unique social media concepts. At the same time, the industry forces can be considered strong due to competitive rivalry, substitutes, buyer power and potential new entrants. As these kind of social media's are based on trends, there are always threats from competitors and substitute products. From time to time these trends change and the "buyers" have various alternatives to choose from. This uncertainty allows the buyer to dictate terms, giving them a powerful position in the industry. The focus on trends also makes threat from

new entrants quite strong, as there is nothing proprietary with a website and anyone can enter the industry. To keep up with the changes in the environment Facebook has done an incredible job, as their strategy has been to always stay up to date with trends. In addition they have bought several of their competitors that were becoming major operators in the industy (e.g. Instagram and Whatsapp). In this type of industry, external and internal factors have to be balanced in an optimal way to provide best possible performance as these types of industries are complex and require continuous adjustments to keep up with competitors. Thus it is difficult to propose a distinct strategy, but a continuously focus on both external and internal factors will provide the best possible performance. Figure 4 summarizes how managers should approach an industry.
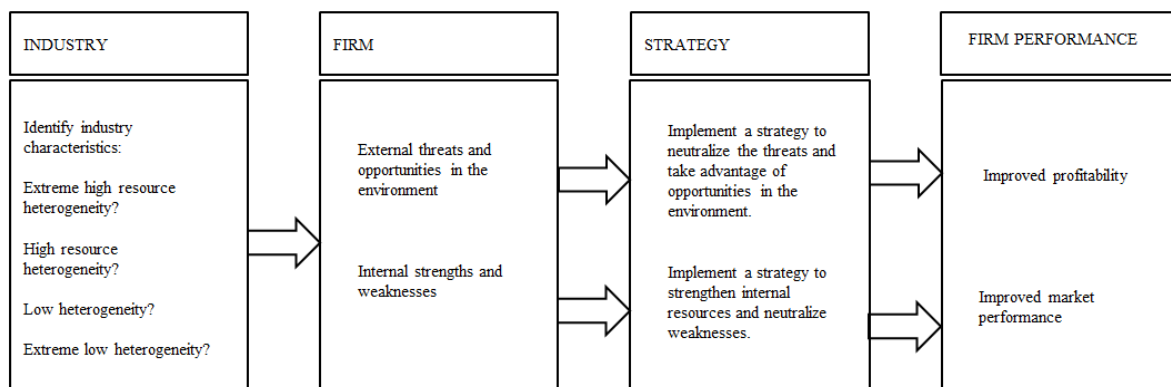
Figure 4: Strategic Approach to Improve Firm Performance

6.2.1. Managerial Implications for the Hotel Industry

As our study was conducted in the hotel industry, we will present some implications primarily for hotel managers, and managers operating in similar industries. "Buildings and other physical structures" was the resource with the greatest effect on firm performance. Buildings and other physical structures can be considered as heterogeneous rather than homogeneous, as unique buildings cannot easily be acquired. This is because attractive buildings are likely to be occupied and therefore not for sale or rent, implying that it is a scarce resource that only some of the firms within the industry are in possession of. For these firms this can most definitely be a source of competitive advantage, as good facilities attract more customers. This in turn may provide superior performance, and the capital can be reinvested to maintain or improve the buildings and physical structures. Firms with poor performance may not be able to compete as their facilities continue to lapse and they never accumulate the capital needed to improve these amenities. Another aspect of this resource is

that a lot of hotel owners only rent the buildings they operate in, and therefore might have limited possibilities concerning improvement as they are dependent of the landlord's willingness to invest. Although there are obstacles to overcome, we suggest that hotel managers with the possibility of investing their profit in improvements of facilities do so in order to maximize their earnings in the long-term.

Managerial and employee skills are among the capabilities that play a vital role in the hotel industry. These capabilities are related to the staff and will therefore vary from one hotel to another. Hotels consisting of managers and employees with exceptional and unique skills may achieve a competitive advantage due to resource heterogeneity. We suggest that hotel manager focus on developing both managerial expertise and employee skills to differentiate themselves from competitors and additionally form a unique concept of training or academy. A general focus on a good working environment and motivation of employees may also be important to retain valuable employees.

Threats from suppliers and buyers are two dimensions in the PIO framework that did not have a significant effect when explaining variance in profitability. Capabilities however, include items measuring relations to suppliers and customers, and these single-items have a significant effect on firm performance. This indicates that these capabilities are heterogeneous and unique within the industry. Based on this, we suggest that external threats from suppliers and buyers can be neutralized and even transformed into internal resources if the hotel develops good relationships with suppliers and buyers. Our managerial implications related to the hotel industry are summarized in Figure 5.
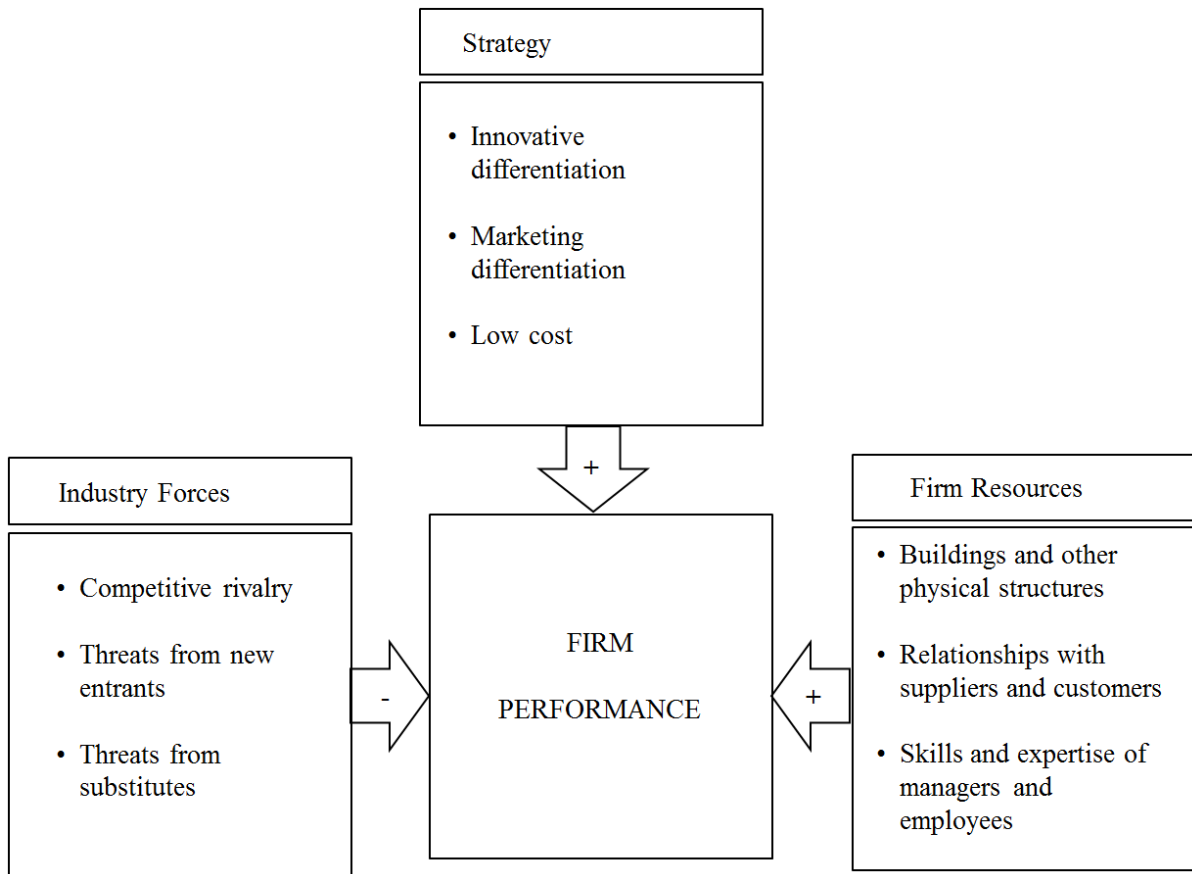
Figure 5: Managerial implications for the Hotel Industry

Figure 4 identifies industry forces hotel managers have to consider in their development of a firm strategy. To achieve a competitive advantage within the hotel industry, managers have to gain awareness of external threats. By evaluating these threats in accordance with the strengths in the firm, threats can be neutralized and even create possibilities. As Figure 5 shows, capabilities concerning relations to suppliers and customers can be such strength that contributes to neutralizing two of the threats in Porter's five forces. Therefore we suggest that hotel managers develop their important resources and always try to figure out how external threats can be transformed into internal strengths.

The main contribution of this thesis is that it will help managers to increase their understanding of how firm performance is affected by both internal and external factors, as this study explains a relatively big part of variance in firm performance. Managers seeking to acquire a competitive advantage and a superior performance should study these results and implications and try to implement them into the firm's strategy. Especially in industries characterized by resource heterogeneity, this study contributes to the understanding of a phenomenon lacking sufficient empirical testing.

6.3. Limitations and Future Research

The degrees of resource heterogeneity and resource immobility are two very interesting characteristics within an industry, but unfortunately it is also an area that lacks empirical testing. Our thesis was constructed around assumptions concerning both resource heterogeneity and immobility, but we found it difficult to develop measurement scales purely based on theory, without the validation of previously conducted studies. For future research there should be a focus on developing alternative appropriate measurement scales for both of these constructs that can be applied in several industries. Especially, resource immobility is a construct that should be integrated better in a survey than it was in our study. Due to a non-reliable measurement scale, we had to exclude it in our analysis. Assumptions related to resource immobility are fundamental in both PIO and RBV, and it should therefore be developed a proper measurement scale to examine its effect.

Although we did a thorough job listing relevant firm resources and capabilities in collaboration with experts in the hotel industry, there is a possibility that we omitted important resources. Scales that are reflective are more robust across industries and should be prioritized in further research.

Our initial idea was to empirically test our research model in different industries with different traits. In this way we could compare different industries to see how each construct affects firm performance in the various industries. Due to data collection limitations we had to settle for a single industry, although we did focus on making our study generalizable so that our findings can be applied to other industries with similar traits. Nevertheless, we encourage future studies to compare various industries as we believe it will provide interesting findings. This can for instance be done with a micro perspective where specific relations in our research model can be studied. With a micro aspect it is possible to identify resources or types of resources that are critical in various industries, or how the threat from each of the dimensions in industry forces varies across industries. It will provide information about resources that is vital in specific industries and reveal how industry forces may vary between industries.

Future studies with a macro aspect on our research model should examine the research model in its entity, and examine if PIO and RBV explain firm performance in a similar degree in other industries. In Section 6.2 we presented four types of industries, and as we have only

examined one of these, a similar study within the other types of industries can provide interesting results and make it possible to compare different types of industries. Do PIO still explain profitability significantly? And do resources have a significant effect on profitability in such an industry? These are only a few of the questions related to such a comparison of industries. Future research without the limitations we faced in our study should conduct a study in several industries, like we initially intended. This will make the findings comprehensive, applicable for different types of industries, and thus generalizable.

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APPENDIX A – Literature Matrix

Reference	Concepts	Definitions	Propositions
Bharadwaj, A. S. 2000. A resource-based perspective on information technology capability and firm performance: an empirical investigation. *MIS Quarterly 24(1): 169–196.*	IT-capabilities (ITC) Increased Profit ratios (P) Decreased Cost ratios(C)	ITC: Firm specific IT resources, such as IT infrastructure, human IT resources and IT-enabled intangibles. P: Superior financial performance by bolstering firm revenues. C: Superior financial performance by decreasing firm costs.	ITC+→P (supported) ITC+→C- (supported)
Drnevich, P. L. & Kriaciunas, A. P. 2011. Clarifying the Conditions and limits of the Contributions of Ordinary and Dynamic Capabilities to Relative Firm Performance. *Strategic Management Journal, 32, 254-279.*	Ordinary capabilities (OC) Dynamic capabilities (DC) Heterogeneity (H) Environmental dynamism (ED) Relative firm performance (RFP)	OC: Capabilities through which a firm "makes its living" in short term. DC: Capabilities used to extend, modify, change, and/or create ordinary capabilities. H: Capability that is unique, customized, idiosyncratic, and/or specific for a firm ED: Change in the competitive environment that affects how firms compete with each other and how they respond to customer needs and developments in the industry RFP: Performance relative to the firm's industry.	OC+ → RFP (Supported) DC+ → RFP (Not supported) H+ → OC- → RFP (Not supported) H+ → DC+ → RFP (Supported) ED+ → OC- → RFP (Supported) ED+ → DC+ → RFP (Supported)

Galbreath, J. & Galvin P. 2008. Firm factors, industry structure and performance variation: New empirical evidence to a classic debate. *Journal of Business Research Vol 61, 109-117.*	Firm Resources (FR)	FR: Tangible and intangible resources and capabilities.	FR+ → P (Supported)
	Tangible Resources (TA)	TR: Observable resources that easily can be imitated by competitors.	IS+ → P (Supported)
	Intangible Resources (IA)	IR: Resources that are difficult to imitate because they are either protected by legal property rights or characterized by high levels of specificity.	FR+ → P > IS+ → P (Supported)
	Capabilities (C)	C: Know-how of a firm.	P+ → SF > IS+ → MF (Supported)
	Industry Structure (IS)	IS: Porters five forces.	TR → P – (Supported)
	Performance (P)	P: No definition provided.	
	Manufacturing Firms (MF)	MF: No definition provided.	IR+ → P (Partially supported)
	Service Firms (SF)	SF: No definition provided.	C+ → P (Supported)
O'Cass, A. & Ngo, V. N.2007. Balancing external adaptation and internal effectiveness: Achieving better brand performance. *Journal of Business Research 60 (pp. 11–20).*	External adaptation (EA): - Competitive intensity (CI) - Strategic types (ST) Internal effectiveness (IE): - Market orientation (MO) - Innovative culture (IC) - Brand performance (BP)	EA: congruency between competitive intensity, strategic types and firm characteristics - CI: The five competitive forces (intensity of rivalry, supplier power, threat of new entrants, threat of substitutes, and buyer power) - ST: People within the firm who has adopted certain characteristics. IE: congruency between MO, innovative culture, and brand performance - MO: A set of behaviors pertaining to market intelligence. - IC: No definition provided. - BP: Brand performance is defined as a relative measurement of brand success in the marketplace.	CI→ ST (supported) ST→ MO (supported) ST→IC (supported) CI→MO (supported) CI→IC (not supported) MO→BP (supported) IC→BP (supported)

Powell, T. C. 1996. How Much Does Industry Matter? An Alternative Empirical Test. *Strategic Management Journal, 17, 323-334.*	Industry factors (IF) - Industry maturity (IM) - Entry barriers (EB) - Competitive power (CP)	IF: No definition provided, but similar to Porter's industrial organization perspective (Porter 1980). Porter's five forces are reduced into three independent factors: industry maturity, entry barriers and competitive power. - IM: Industry maturity - EB: Entry barriers - CP: Competitive power, with rivalry, the threat of substitutes, power relative to customers, and power relative to suppliers collapsing into one variable.	IF+→OFPV (Partially supported) IM+ → OFPV (Not supported) IM+→EB+→ OFPV (Supported)
	Overall financial performance variance (OFPV)	OFPV: Overall financial performance variance relative to competitors.	EB+→OFPV (Supported) CP+→OFPV (Supported)
Rivard, S., Raymond, L., & Verrault, D. 2006. Resource-based view and competitive strategy: An Integrated Model of the Contribution of Information Technology to Firm Performance. *Journal of Strategic Information Systems, 15, 29-50.*	IT support for strategy (S)	S: IT support for innovative differentiation, marketing differentiation and low cost.	MP+ → P (Supported) S → IF → MP S → IF → P
	Industry forces (IF)	IF: Threats of substitutes, barriers to entry, power of suppliers, competitive rivalry and power of buyers.	S → MP → P (Supported)
	IT support for Firm assets (FA)	FA: IT support for marketing and technological competencies.	IF- → MP → P IF- → P
	Market performance (MP)	MP: The external firm accomplishments in the market place (Spanos & Lioukas 2001).	FA+ → P (Supported)
	Profitability (P)	P: Internal to the firm economic rents steaming from its strategic activities (Spanos & Lioukas 2001).	FA+ → S+ (Supported) FA+ → S+ → MP+ (Supported)

Schmalensee, R. 1985. Do Markets Differ Much? *American Economic Review, 75 (3), 341-351.*	Firm effects (FE) Industry effects (IE) Market share (MS) Rate of return (ROR)	FE: Firm effects, similar to the resource based view where firm assets might lead to profitability. IE: Industry effects, similar to the traditional industrial organization perspective (Bain/Mason paradigm). MS: Market share ROR: variance of industry rates of return on assets, or variance of business unit rates of return.	FE 0 → ROR IE+→ROR MS+→ROR IE-→MS
Spanos, Y. E., & Lioukas, S. 2001. An examination into the causal logic of rent generation: contrasting Porters competitive strategy framework and the resource - based perspective. *Strategic Management Journal, 22(10), 907-934.*	Industry Forces (IE) - Threat of substitutes (Sub) - Barriers to entry (Ent) - Power of suppliers (Sup) - Competitive rivalry (Riv) - Power of buyers (Buy) Firm Assets (FA) Strategy (S) Market performance (MP) Profitability (P) Firm Performance (FP)	IF: Barriers to entry, power over suppliers, power over buyers, intensity of competition, and threat of substitutes. FA: Resources are defined as those tangible (or intangible) assets that are tied semi-permanently to the firm (Maijoor and Witteloostuijn, 1996). Can be organizational, technical or marketing resources. S: An attractive strategic position is viewed as an outcome of firm strategy activities. Strategy is about creating value for buyers in the form of differentiated product, or one produced with lower costs. MP: The external firm accomplishments in the market place. P: Internal to the firm, economic rents steaming from its strategic activities. FP: Market performance and Profitability	Sup → P Riv → MP IF → P FA → MP S → MP MP → P

Tuan, N. P., & Mai, N. T. T. 2012. A Firm Analysis Level of Supporting Industries in Hanoi City-Vietnam: Application of Resource-based View and Industrial Organization. *International Journal of Business and Management, 7(5), 53-72*	Competitive advantage (CA) Organizational capabilities (OC) Industry effects (IE) Performance (P)	CA: No definition provided, but similar to Barney (1991) and Porter (1981), focusing on strategy, innovation and cost OC: Specific resources releasing new resources IE: Effects in the industry related to the strategy formulation P: Rents a firm accrues as a result of the implementation of its strategies	OC+→CA (supported) IE+→CA (not supported) IE+→OC+→CA (supported) CA→P (supported) OC+→CA+→P (supported)

Appendix B: Questionnaire

Information

Denne spørreundersøkelsen handler om hvordan bedrifter i hotellbransjen jobber
for å oppnå et konkurransefortrinn. Formålet med undersøkelsen er å
identifisere kritiske suksessfaktorer som bidrar til bedre lønnsomhet for hoteller
i Norge. Svarene er konfidensielle. Estimert tid: cirka 15 minutter.
Trykk neste for å starte.

Information

Første halvdel av undersøkelsen består av spørsmål
som omhandler deres bedrift.

Materielle	I hvilken grad er hotellets omsetningsutvikling i dag et resultat av:					
	Ingen påvirkning				Ekstrem stor påvirkning	
	1	2	3	4	5	
Hotellets fasiliteter	O	O	O	O	O	1
Beliggenhet i henhold til markedet	O	O	O	O	O	2
Unik destinasjon	O	O	O	O	O	3
Tilgang til kapital	O	O	O	O	O	4
Investeringer i miljøtiltak	O	O	O	O	O	5
Teknologiske investeringer som effektiviserer driften	O	O	O	O	O	6
Teknologiske investeringer som forbedrer kundeopplevelsen	O	O	O	O	O	7

Immaterielle	I hvilken grad er hotellets omsetningsutvikling i dag et resultat av:					
	Ingen påvirkning				Ekstrem stor påvirkning	
	1	2	3	4	5	
Hotellets merkevare	O	O	O	O	O	1
Service og vertskapsrolle	O	O	O	O	O	2
Hotellets konsept og design	O	O	O	O	O	3
Omsetning fra stamkunder	O	O	O	O	O	4
Vår kundeinnsikt	O	O	O	O	O	5
Investeringer i medarbeidere	O	O	O	O	O	6
Organisering av arbeidsoppgaver	O	O	O	O	O	7
Bedriftskultur	O	O	O	O	O	8

Kapabiliteter	I hvilken grad er hotellets omsetningsutvikling i dag et resultat av:					
	Ingen påvirkning				Ekstrem stor påvirkning	
	1	2	3	4	5	
Ledernes egenskaper	O	O	O	O	O	1
Medarbeidernes kreativitet og kunnskap	O	O	O	O	O	2
Relasjoner til leverandører	O	O	O	O	O	3
Relasjoner til kunder	O	O	O	O	O	4

Innovasjon	I hvilken grad benytter ditt hotell følgende metoder ifht konkurrenter dere sammenligner dere med:					
	I mye mindre grad enn konkurrenter	I mindre grad enn konkurrenter	I like stor grad som våre konkurrenter	I større grad enn konkurrenter	I mye større grad enn konkurrenter	
	1	2	3	4	5	
Organisasjonsutvikling	O	O	O	O	O	1
Nye produkt- og servicekonsepter (matkonsepter, underholdning etc.)	O	O	O	O	O	2
Bygningsmessig utvikling/oppgradering	O	O	O	O	O	3
Først i markedet med nye løsninger	O	O	O	O	O	4

Marked	I hvilken grad benytter ditt hotell følgende metoder:					
	I mye mindre grad enn konkurrenter	I mindre grad enn konkurrenter	I like stor grad som våre konkurrenter	I større grad enn konkurrenter	I mye større grad enn konkurrenter	
	1	2	3	4	5	
Digital markedsføring / Sosiale medier	O	O	O	O	O	1
Kampanjeinvesteringer	O	O	O	O	O	2
Systemer og aktiviteter for gjenkjøp	O	O	O	O	O	3
Aktiviteter og ressurser til oppsøkende salg	O	O	O	O	O	4

Lavkost	I hvilken grad benytter ditt hotell følgende metoder:					
	I mye mindre grad enn konkurrenter	I mindre grad enn konkurrenter	I like stor grad som våre konkurrenter	I større grad enn konkurrenter	I mye større grad enn konkurrenter	
	1	2	3	4	5	
Produktivitet / lean management	O	O	O	O	O	1
Forenklet produkttilbud til lavere pris	O	O	O	O	O	2
Kostnadseffektive investeringer	O	O	O	O	O	3

Information
Videre i undersøkelsen ønsker vi at dere vurderer påstander om deres segment/marked og de konkurrentene det er mest naturlig å sammenlikne deres hotell med.

Konk_intensitet	Konkurransesituasjonen					
	I svært liten grad	I liten grad	Verken eller	I stor grad	I svært stor grad	
	1	2	3	4	5	
Det er stor vekst i markedet ditt	O	O	O	O	O	1
Det er hard konkurranse for å øke/beholde markedsandeler	O	O	O	O	O	2
Konkurransetrekk fra et av hotellene blir ofte møtt med mottrekk	O	O	O	O	O	3
Priskonkurransen er svært intens	O	O	O	O	O	4

Lev_forhandling	Leverandørene					
	I svært liten grad	I liten grad	Verken eller	I stor grad	I svært stor grad	
	1	2	3	4	5	
Leverandørenes bidrag er en strategisk innsatsfaktor	O	O	O	O	O	1
Enkelte av våre leverandører gir oss etterspørselssvekst	O	O	O	O	O	2
Sentrale leverandører av unike tjenester og produkter stiller tøffe betingelser til oss	O	O	O	O	O	3
Enkelte leverandører eller leverandørgrupper har mye makt	O	O	O	O	O	4

Kunde_forhandling	Kundene					
	I svært liten grad	I liten grad	Verken eller	I stor grad	I svært stor grad	
	1	2	3	4	5	
Det er få og store kunder i vårt marked	O	O	O	O	O	1
Våre kunder er likegyldige til valg av hotell så lenge det er billig	O	O	O	O	O	2
Kundene er kvalitets-/detaljsbevisste	O	O	O	O	O	3
Enkelte kunder eller kundegrupper har mye makt	O	O	O	O	O	4

Substitutter	Ta stilling til «substitutter», dvs. andre alternativer (eks. innen videokonferanse, airbnb.com), andre bransjer (eks. konferansesentre, selvhushold), andre markeder (eks. konferansecruise, utenlandsreise)					
	I svært liten grad	I liten grad	Verken eller	I stor grad	I svært stor grad	
	1	2	3	4	5	
Det er mange substitutter til de tjenestene vi tilbyr	O	O	O	O	O	1
Vi opplever aktiv konkurranse fra substitutter	O	O	O	O	O	2
Andre substitutter begrenser vårt prisnivå	O	O	O	O	O	3
Våre kunders behov kan enkelt dekkes andre steder enn i hotellbransjen	O	O	O	O	O	4

Nyetablering	Utfordringene knyttet til nyetablering					
	I svært liten grad	I liten grad	Verken eller	I stor grad	I svært stor grad	
	1	2	3	4	5	
Det har vært mange nyetableringer i vårt marked	O	O	O	O	O	1
Etablerte hotell bruker betydelige ressurser for å forhindre at nye hotell etablerer seg	O	O	O	O	O	2
Konkurranstrekk mot nye hotell er og har vært sterk	O	O	O	O	O	3
Sterk relasjoner til eksisterende hotell gjør det vanskelig å etablere seg	O	O	O	O	O	4

Heterogenitet	Nedenfor følger noen påstander om kritiske suksessfaktorer (KSF) i hotellbransjen. I vårt segment/marked...					
	I svært liten grad	I liten grad	Verken eller	I stor grad	I svært stor grad	
	1	2	3	4	5	
... er KSF forstått forskjellig	O	O	O	O	O	1
... skiller konkurrentenes KSF seg fra våre KSF	O	O	O	O	O	2
... er det vanskelig å få tilgang til alle KSF	O	O	O	O	O	3
... er det vanskelig å bygge opp KSF	O	O	O	O	O	4

Immobilitet1	I vårt segment/marked er det vanskelig for konkurrenter å anskaffe nye kritiske suksessfaktorer (KSF)…					
	I svært liten grad	I liten grad	Verken eller	I stor grad	I svært stor grad	
	1	2	3	4	5	
… uten betydelige investeringer	O	O	O	O	O	1
… grunnet beliggenhet/tilgjengelighet	O	O	O	O	O	2
... grunnet eksklusivitet til leverandører	O	O	O	O	O	3
… fordi ressursene er bedriftsspesifikke	O	O	O	O	O	4

Immobilitet2	I vårt segment/marked…					
	I svært liten grad	I liten grad	Verken eller	I stor grad	I svært stor grad	
	1	2	3	4	5	
... kan konkurrenter enkelt lære om våre KSF ved å besøke vårt hotell	O	O	O	O	O	1
... er opplæring og trening av nyansatte en rask og enkel prosess	O	O	O	O	O	2
… er det mulig for en enkeltperson i bedriften å vite alt om våre KSF	O	O	O	O	O	3
... er KSF lite komplekse, og derfor enkle for konkurrenter å anskaffe	O	O	O	O	O	4

Avslutningsvis vil vi stille noen korte kontrollspørsmål om hotellet.

Markedsposisjon	Vurder hotellets posisjon de siste årene, sammenlignet med hotellene du anser som konkurrenter:					
	I mye mindre grad enn våre konkurrenter	I mindre grad enn våre konkurrenter	I like stor grad som våre konkurrenter	I større grad enn våre konkurrenter	I mye større grad enn våre konkurrenter	
	1	2	3	4	5	
Ekspansjon til nye produktgrupper og produktområder	O	O	O	O	O	1

Fortjeneste	Vurder hotellets posisjon de siste årene, sammenlignet med hotellene du anser som konkurrenter:					
	Mye lavere enn våre konkurrenter	Lavere enn våre konkurrenter	Det samme som våre konkurrenter	Høyere enn våre konkurrenter	Mye høyere enn våre konkurrenter	
	1	2	3	4	5	
Gjennomsnittlig rompris	O	O	O	O	O	1
Omsetningsutvikling	O	O	O	O	O	2
Driftsresultat	O	O	O	O	O	3
Resultat før skatt (netto)	O	O	O	O	O	4

Information

Tusen takk for at du tok deg tid til å besvare spørreundersøkelsen vår. Som takk for hjelpen vil vi sende dere en rapport som viser resultatene av studien når denne avsluttes i mai 2014.

Appendix C
Descriptive statistics of items

	N	Mean	Std. Deviation	Skewness	Kurtosis
Firm Resources					
Tangible assets					
TA1	128	3,48	,913	-,780	,840
TA2	128	4,05	,841	-,736	,551
TA3	128	3,18	1,160	-,204	-,708
TA4	128	2,98	1,004	-,111	-,382
TA5	128	2,80	,899	,348	-,345
TA6	128	2,96	1,038	-,093	-,926
TA7	128	3,29	1,028	-,519	-,309
Intangible assets					
ITA1	126	3,77	,841	-,855	1,113
ITA2	126	4,52	,690	-1,693	4,422
ITA3	126	3,75	,954	-,927	1,060
ITA4	126	3,69	,853	-,221	-,524
ITA5	126	3,98	,732	-,336	-,110
ITA6	126	4,23	,739	-,517	-,584
ITA7	126	3,95	,747	-,508	,275
ITA8	126	4,18	,720	-,419	-,514
Capabilities					
C1	126	4,17	,654	-,184	-,681
C2	126	3,98	,737	-,826	1,847
C3	126	3,23	,905	-,013	-,152
C4	126	4,53	,561	-,678	-,577
Strategy					
Innovative Differentiation					
Inno1	124	3,35	,677	-,255	1,516
Inno2	124	3,50	,738	,000	-,262
Inno3	124	3,08	1,001	-,213	-,253
Inno4	124	3,13	,945	-,262	-,052

Marketing Differentiation

Mark1	124	3,36	,905	-,251	-,067
Mark2	124	2,85	,766	-,284	-,208
Mark3	124	3,20	,584	,191	,215
Mark4	124	3,19	,932	-,073	-,239
Low Cost					
LowC1	124	3,39	,634	,435	,099
LowC2	124	2,87	,846	-,078	-,164
LowC3	124	3,18	,651	-,013	1,985

Industry forces

Competitive Rivalry

CR1	123	2,77	1,007	-,115	-,406
CR2	123	4,09	,800	-,848	,670
CR3	123	3,63	,834	-,495	-,278
CR4	123	3,92	,845	-,506	-,233
Power of Suppliers					
Supp1	123	3,10	,762	-,393	,094
Supp2	123	2,72	,805	-,203	,111
Supp3	123	2,94	,750	-,025	,393
Supp4	123	3,31	,860	,062	-,317
Power of Buyers					
Buyers1	123	3,03	,886	-,208	-,710
Buyers2	123	2,73	,950	,389	-,226
Buyers3	123	3,89	,598	-,429	1,059
Buyers4	123	3,82	,747	-,535	,345
Threat of Substitutes					
Sub1	123	3,30	,914	-,374	-,384
Sub2	123	3,33	,854	-,362	-,238
Sub3	123	3,18	,859	-,276	-,301
Sub4	123	2,60	1,014	,198	-,619
Barriers of Entry					
Entry1	121	2,55	1,238	,470	-,889
Entry2	121	2,24	,895	,145	-,482
Entry3	121	2,97	1,008	-,330	-,665
Entry4	121	2,61	,898	-,131	-,390

Resource Heterogeneity

RH1	118	3,21	,749	-,122	,632
RH2	118	3,02	,857	-,281	-,225
RH3	118	3,07	,701	,361	,225
RH4	118	3,03	,779	-,265	-,136

Resource Immobility

Critical Success Factors

CSF1	117	3,41	,672	-,187	-,291
CSF2	117	3,26	,709	-,709	,372
CSF3	117	2,68	,652	-,523	,406
CSF4	117	2,91	,535	-,082	,485

Tacit Knowledge

TK1	116	3,70	,771	-1,154	2,001
TK2	116	2,97	,879	-,105	-,999
TK3	116	3,22	,893	-,366	-,473
TK4	116	3,26	,747	-,336	-,200

Firm Performance

Market Position

MP1	112	3,29	,680	,082	-,136
MP2	111	3,46	,615	-,680	-,478

Profitability

P1	111	3,38	,874	-,076	-,755
P2	111	3,32	,741	-,330	-,674
P3	111	3,21	,728	-,197	-,803