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SOURCES OF SUSTAINED COMPETITIVE ADVANTAGE: A RESOURCE-BASED ANALYSIS

By

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Any mistakes or inaccuracies remaining in this dissertation are, of course, my own.

ABSTRACT

Understanding the origins of persistent superior firm performance has in the past few decades emerged as one of most important areas of research in the field of strategic management. Existing empirical studies on performance variability, however, remain inconclusive, and a significant portion of the variance in performance is still unexplained. The purpose of this dissertation is to deepen our understanding of the firm-level sources of sustained competitive advantage. It is one of the few empirical studies that attempt to explore firm-level sources of sustained competitive advantage from inside the organization.

This study adopts a resource-based perspective and an exploratory multicase study research design to empirically explore and inductively analyse firm-level differences and their links to competitive advantage. The study is based on 26 semi-structured interviews with senior management team members, drawn from a purposive cross-sectional sample of 11 high-performing firms in Switzerland and adjacent countries.

The findings of the study suggest that nine firm resources are most closely associated with competitive advantage: firm reputation, culture, brand reputation, management team, employees, relationships, innovation capability, controlling employee fluctuation, and national reputation.

This study makes a number of significant theoretical and managerial contributions. Most notably, it indicates that much of the performance variance previous studies have failed to explain is attributable to firm resources that have heretofore been ignored or handled in an overly abstract manner, such as innovation capability and national reputation. The study also calls researchers' attention to performance-relevant resource characteristics, suggests that the links between resources and firm performance may be more complex than often assumed, and indicates that defining strategic resources in terms of their use value alleviates the problem of tautology that the RBV is sometimes claimed to suffer from. Finally, the study is of service to managers by suggesting firm resources that can lead to a sustained competitive advantage.

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1 INTRODUCTION

1.1 BACKGROUND AND RESEARCH PROBLEM

A major concern of strategic management research is explaining the phenomena of persistent superior firm performance (Barney & Arikan, 2001; Barney, 1991; Foss & Knudsen, 2003; Hawawini, Subramanian, & Verdin, 2003; Hoskisson, Hitt, Wan, & Yiu, 1999; Levinthal, 1995; Porter, 1985; Rumelt, 1984, 1991). What is it that makes one firm perform better than another?

Since the early 1980s, two main explanations have emerged: a market-based and a resource-based explanation. The first suggests that industry factors and the firm's relative position in the market determine its performance (Porter, 1980, 1985). The second argues instead that it is firm internal factors – resources with specific characteristics – that determine firm performance (Barney, 1986a, 1991; Peteraf, 1993; Rumelt, 1984; Wernerfelt, 1984).

Both industry and firm-level effects on firm performance have been the target of a variety of studies (Hawawini et al., 2003; McGahan & Porter, 1997; Rumelt, 1991; Schmalensee, 1985), but the results have been mixed and have left a large portion of the performance variance unexplained. Examples include Schmalensee's (1985) study, which leaves over 80 per cent of the variance unexplained; Rumelt's (1991) study, where the unexplained percentage exceeds 36 per cent, McGahan and Porter's (1997) study (over 48 per cent), and a study by Hawawini, Subramanian and Verdin (2003) (over 51 per cent).

The above-mentioned studies also suggest that only about 20% of the variance is attributable to factors having to do with industry structure. Potentially, then, up to 80% of the variance is linked to firm-specific factors. Thus, an important questions is: what firm resources, exactly, contribute to competitive advantage and superior firm performance?

Research within the Resource Based View (RBV) tradition has in the past relied heavily on quantitative research approaches that use large-scale samples to verify the main tenets of the RBV in the pursuit of drawing generalizable conclusions (Barney, Wright, & Ketchen, 2001; Michalisin, Smith, & Kline, 1997). Such research has provided important insights about firm resources and their impact on firm performance. These studies,

however, have often conceptualized resources in relatively broad terms (Johnson, Melin, & Whittington, 2003) and/or used methodological approaches that concentrate on the average firm rather than on the outlying firms that have distinctive characteristics (Aharoni, 1993). As a consequence, we still have a very imperfect understanding of the specific firm resources (and resource characteristics) that contribute to competitive advantage and superior firm performance.

1.2 RESEARCH PURPOSE AND QUESTION

The purpose of the present study is to add to our understanding of competitive advantage by moving beyond the broad quantitative characterizations and the average-firm approach, and exploring the specific firm-level sources of sustained competitive advantage. More specifically, the study seeks to address the following research question:

"What firm resources and resource characteristics are most closely associated with sustained competitive advantage among a small sample of high-performing firms?"

1.3 APPROACH

To uncover the resources and resource characteristics that might provide a sustainable competitive advantage, scholars have suggested adopting qualitative approaches, such as case study methods, and collecting primary data inside the firm (Johnson et al., 2003; Rouse & Daellenbach, 1999).

In keeping with the recommendations of Rouse and Daellenbach (1999), this study uses a qualitative, exploratory case study approach (Stake, 2006; Stebbins, 2001) and a small purposive sample (Daellenbach & Rouse, 2007; Eisenhardt, 1989; Yin, 2003) to explore firm-level sources of competitive advantage.

In contrast to the predominantly positivist approaches in the RBV stream, the present research adopts a relativist paradigm and an inductive methodology involving the following steps: (1) conducting a literature review, (2) developing a conceptual framework for investigation, (3) conducting a pilot, (4) collecting qualitative data, (5) analysing the data, (6) developing theoretical propositions, and (7) writing up.

The study uses a purposive case sample of 11 highly competitive firms from different industries and located within a radius of 150 km from Zurich, and a purposive respondent sample of 26 members of the senior management teams. As the primary data collection method, the study makes use of interviewing, which permits collecting

qualitative, varied, and valid data at multiple research sites (Denzin & Lincoln, 2005a; Easterby-Smith, Thorpe, & Lowe, 2002; Saunders, Lewis, & Thornhill, 2003).

The data was collected through semi-structured interviews. In total, 26 interviews were conducted at the workplaces of the respondents in the period from October 2006 to July 2007. The collected data was then analysed through a set of analytical steps. First, interview summaries were established. Second, the interviews were analysed through an iterative process of coding, clustering, exploring, ordering and relating data: this step was supported by a qualitative data analysis software package. This process also involved the development of matrices and integrative diagrams.

The findings from the 11 cases were then merged and ranked according to their ability to explain the main research question, and subsequently grouped into main and special findings (Stake, 2006). The main findings are those that were identified as important competitive strengths relatively difficult to imitate and substitute, and which have been mentioned in four or more cases. The special findings included competitive strengths that were pertinent to only a few cases, and that can tentatively be considered specific to a particular context.

The main findings represent resources and capabilities that are most closely associated with sustained competitive advantage; they include *firm reputation*, *firm culture*, *brand reputation*, *management team*, *employees*, *relationships*, *innovation capability*, *controlling employee fluctuation*, and *national reputation*. While several of these themes have been noted in the strategic management literature as well as the practice-oriented literature as resources that affect firm performance, some have received little attention (e.g., innovation capability, controlling employee fluctuation, and national reputation). Additionally, several of these resources have rarely been properly analysed within the RBV tradition regarding their ability to meet the necessary conditions for attaining and sustaining competitive advantage.

To strengthen, extend, and relate the findings of the study to the extant literature, this dissertation also scrutinized strategic-management oriented RBV literature and other relevant literature in related fields. The findings were then integrated with the literature to evaluate, following resource-based logic, the potential of each resource to confer a sustained competitive advantage. Finally, the study developed conclusions in the form of testable propositions.

1.4 CONTRIBUTION TO KNOWLEDGE

This research contributes to knowledge in a number of areas. First, the findings of this study contribute to our understanding of the causes of differential firm performance, which is arguably the most fundamental concern of strategic management research (see Barney & Arikan, 2001). This study has identified a number of potential sources of competitive advantage, critically assessed their ability to provide a sustained competitive advantage, and developed a set of theoretical propositions. Some of the unexplained performance variance in previous research (Hawawini et al., 2003; McGahan & Porter, 1997; Rumelt, 1991; Schmalensee, 1985), this study indicates, may be attributable to firm resources that previous studies have either neglected (e.g., innovation capability, or national reputation), or operationalized in ways that abstract away important inter-firm differences. This study also contributes to the development of reliable resource constructs to test the resource-based theory. In particular, it specifies performance-relevant resource characteristics, which may help researchers to develop more fine-grained conceptualizations of firm resources for testing resource-based theory (e.g., Mauri & Michaels, 1998). This study points to heterogeneity within major resource categories, to a need for researchers to place a stronger emphasis on the attributes of firm resources and their effects on firm performance.

Second, the study indicates important links between strategic resources and sustained competitive advantage. Although the study focused on the discovery and development of concepts and not the explanation of their causality, the process of grounded analysis revealed that the connection between strategic resources (so called VRIN resources) and sustained competitive advantage is rather complex and indirect. In the RBV literature, these linkages are clearly underexplored and their importance for developing a comprehensive understanding of the phenomenon of competitive advantage may be underestimated. This is also mirrored in many past RBV studies focusing on the resource-performance relationship which assumed a direct and linear relationship. The present study suggests that such assumptions are problematic and that the possession of VRIN resources alone is not a guarantee for achieving sustained competitive advantage. Delivering competitive advantage requires in addition an implicit or explicit understanding of the linkages between the VRIN resources and competitive advantage, as well as the possession of appropriate complementary resources and capabilities. These concepts and conceptual linkages are presented in the form of integrative diagrams accompanied by narratives that provide the details. These diagrams may, for

example, serve as a valuable input to researchers who seek to build formal theories of competitive advantage. They may also be useful for managers and strategists as instruments to explore in the context of their own firms possible routes for exploiting VRIN resources to achieve competitive advantage.

Third, the study contributes to the debate regarding whether the RBV provides an adequate paradigm for advancing strategic management as a field. Some scholars have argued that the RBV suffers from important deficits, such as tautology, that limit its applicability (Priem & Butler, 2001a, 2001b; Sanchez, 2008). This study indicates that defining strategic resources in terms of their use value alleviates the problem of tautology.

Fourth, the study contributes to the debate over the most appropriate level of resource analysis in RBV research (Collis, 1994; Lado, Boyd, Wright, & Kroll, 2006). The discussion centres on the problem of infinite regress in identifying the source of a competitive advantage. There is, the study suggests, a hierarchy of resources, and competitive advantage may be linked to resources at various levels, not only to those at the lowest level in the hierarchy. Concentrating the analysis only on the fundamental resource levels may cause important inter-firm differences to be overlooked. This study indicates that different levels of analysis should be used to understand firm heterogeneity and its impact on firm performance.

Fifth, the study has also developed a conceptual framework to explore competitive advantage. This framework integrates the conceptual contributions within the resource-based literature. It elucidates the fundamental concepts of resources, performance, and market, and may be used as a basis for further resource-based work.

Sixth, the study provides insights that can be valuable for managers in their attempts to attain or sustain a competitive advantage. The study points to a number of firm resources that can lead to a sustained competitive advantage. This also includes resources – such as national reputation, or controlling employee fluctuation – that have received little or no attention in the RBV literature. This information may be useful in uncovering potential areas of competitive advantage (e.g., in conjunction with the process suggested by Ackermann & Eden, 2011a).

1.5 LAYOUT OF THE STUDY

This section provides an outline of the study and a brief description of the content of each chapter.

- Chapter 2 reviews the resource-based view to explain competitive advantage and superior firm performance. This chapter discusses the theoretical and intellectual antecedents of this view as well as its theoretical tenets. It also reviews four variants of the resource-based perspective that grew out or developed in parallel to the traditional resource-based view. Finally, the chapter discusses the main areas of criticism and confusion that limit our ability to explain competitive advantage from a resource-based perspective.
- Chapter 3 provides the conceptual framework for the study. This includes the main concepts and assumptions deemed relevant for the study of competitive advantage.
- Chapter 4 discusses the methodology of the study, including the research paradigm, the research strategy, the methods for data collection and analysis, and the research approach.
- Chapter 5 describes the research design for the study. This encompasses all stages of the research, including, for example, the development of research questions, selecting the study sample, conducting a pilot study, collecting and analysing data, relating the study findings to the extant literature, and developing conclusions.
- Chapter 6 provides a general introduction to the findings of the study. Findings have been divided into main findings and special findings.
- Chapters 7 through 15 present and discuss the main findings of the study. These include firm reputation, firm culture, brand reputation, management team, employees, relationships, innovation capability, controlling employee fluctuation, and national reputation. Each of these main findings is presented in a chapter consisting of four substantive sections, where the first section presents the findings, the second reviews the relevant literature, the third provides an integrative discussion of the study findings and the reviewed literature and evaluates the potential of the finding (i.e., resource or capability) to confer a sustained competitive advantage using resource based logic, and the final section draws conclusions in the form of testable propositions.

- Chapter 16 presents the special findings of the study. These include competitive strengths that are relevant for only a few of the investigated firms, and are in nature more specific to a particular context.
- Chapter 17 presents diagrams indicating the main concepts and links between these concepts, discussed in in the previous findings chapters.
- Chapter 18 concludes the study. It discusses the implications and limitations of this research, and suggests possible future research opportunities.

The next chapter, then, reviews the major resource-based explanations of differential firm performance developed in the field of strategic management.

2 LITERATURE REVIEW

2.1 CHAPTER INTRODUCTION

A principal concern for strategic management research, as noted in the previous chapter, is to explain why some firms consistently attain high performance levels while others do not (Barney & Arikan, 2001; Barney, 1991; Foss & Knudsen, 2003; Hawawini et al., 2003; Hoskisson et al., 1999; Levinthal, 1995; Porter, 1985; Rumelt, 1984, 1991). The literature suggests a number of theoretical explanations for this phenomenon (Hoopes, Madsen, & Walker, 2003; Hoskisson et al., 1999; Makadok, 2011). The explanation that has arguably emerged as the prevailing one in the last three decades comes from the resource-based view (RBV), which suggests that performance differences are largely attributable to firm-level factors, broadly referred to as "resources", that have specific characteristics. The RBV has been developed largely in the period between 1984 and 1991, and refined and solidified since then (Barney, Ketchen, & Wright, 2011; Wernerfelt, 1995). The purpose of this chapter is to describe the resource-based explanations of competitive advantage in more detail.

The chapter is organized as follows. Section two discusses the theoretical and intellectual roots of the RBV as well as its key assumptions, concepts, and theoretical propositions. The subsequent section focuses attention on the explanations of four resource-based perspectives that grew out of or developed in parallel to the RBV, including the dynamic capability view (DCV), the knowledge based view (KBV), the core competence perspective (CCP), and the competence-based management perspective (CBM). The final section discusses the main areas of criticism and confusion within the RBV that limit our understanding about the causes of differential firm performance at the level of the firm.

2.2 RESOURCE-BASED VIEW

2.2.1 MAIN INTELLECTUAL AND THEORETICAL ANTECEDENTS

David Ricardo (1817), a British economist, was among the first to recognize that the productive factors flowing into productive systems, such as land for cultivating grain, can vary in their capacity to generate economic returns even if they are of the same class. He noted that if demand for grain is low, grain farming would concentrate on the most productive strips of land, and with increasing demand, gradually extend to less productive ones. Due to these differences in unit costs, owners of highly productive land

stripes enjoy an extra margin on revenues – what Ricardo termed “rent”. Critiques of his theory argued that such rents inflate prices, which in turn harms social welfare, and consequently prices should be regulated through corresponding tax policies. Ricardo dismissed this hypothesis and posited that the scarcity of highly productive strips of land drives prices, independent of rents earned.

In short, a Ricardian rent is the surplus that a resource yields relative to another resource of the same class. In order for that resource to provide benefits on a longer basis, it needs to be not only scarce but also inelastic in supply (i.e., the prospect of a rent does not increase the supply of that resource). Thus, Ricardo’s theory provides an efficiency-based explanation of performance differences (Rumelt, 1987).

More specifically, Ricardo contributed to the development of the resource-based theory in that he anticipated some of the necessary conditions of competitive advantage, namely that a resource needs, firstly, to be superior (more efficient or effective) relative to other resources, and secondly, scarce and imperfectly elastic in supply (Barney & Arikan, 2001).

The importance of heterogeneous resources, and in particular distinctive competences, as necessary conditions for competitive success is also encountered in the work of Philip Selznick (1957), one of the founding fathers of the strategy field. He suggested that leaders are instrumental for the development of organizational competences. In his view, leaders perform a different role than classical managers. Whereas managers are concerned with evaluating and implementing strategies and managing operations, leaders focus on the firm’s aspirations and how they can be attained. Based on these aspirations, a firm can then define and concentrate on those economic activities that it can perform more efficiently or effectively than other firms in the market – referred to as the distinctive competences (Selznick, 1957).

Selznick’s work suggested that interfirm differences in terms of leadership capabilities can have implications for a firm’s performance and long-term survival. Thus, Selznick’s contribution to the RBV includes the elucidation of the concept of distinctive competences, and the recognition that the resource category “management team members” is likely heterogeneous across firms.

About 50 years ago, the economist Edith Penrose (1959) wrote a book called “The Theory of the Growth of the Firm” that has significantly influenced the development of

the resource-based perspective. Her main intention was to describe why, how and under what conditions firms expand from an organizational perspective. She believed that firms are more than just economic entities that strive to attain the highest possible returns by adjusting their production levels according to some market demand, market supply, and internal cost parameters, as posited in the tradition of neoclassical economics. In her view, this definition of the firm abstracts away the essential function of the firm, and hence limits its applicability for the study of the growth of the firm. According to Penrose, it is more useful to conceptualize the firm as an "administrative unit" that coordinates activities, and as "collection of productive resources". An important role in the growth process is ascribed to top-level managers. Their responsibility is to combine and deploy the firm's productive resources through its coordinative system. Penrose argued that the firm's path and rate of growth depends on the one hand on the opportunities that exist for using the firm's extant productive resources and on the other on the firm's coordinative framework to apply these resources (Penrose, 1959).

Penrose's analysis not only provided profound insights about the dynamics and the logic of firm growth but also offered important concepts that helped to establish and advance the resource-based view (Barney & Arikan, 2001; Foss, 2000; Kor & Mahoney, 2000, 2004; Rugman & Verbeke, 2002, 2004). For example, she defined the firm as a bundle of productive resources, a notion that has thoroughly penetrated the resource-based literature. Second, she recognized that the productive resources of one firm can differ from those of other firms. The idea of resource heterogeneity is one of the two assumptions that distinguish the RBV from other explanations of firm performance (Barney, 1991). Third, she indicated that resource heterogeneity can persist over an extended period of time. Fourth, she noticed that firm performance and the survival of the firm critically depend on the maintenance of difficult-to-replicate knowledge assets. Thus, she called attention to the need for imitation barriers, which is an important theme in the RBV. Fifth, she also noticed that resources have many applications and that contextual factors (the administrative framework) determine their use and hence their value for the firm. The strategic value of resources represents a central theme in the RBV. Finally, she also made a number of contributions that later became associated with the dynamic capability view.

In the early 1970s, some researchers began to critically evaluate the analytical approaches and models of industrial organization economics to support anti-trust

policymaking and control. A particularly prominent figure in this effort was the industrial organization economist Harold Demsetz. In essence, Demsetz (1973) argued that the "structure-conduct-performance" model and other models of industrial organization economics that ignore or inappropriately reflect the costs of information should not be used as a basis for antitrust regulation, since these models cannot reliably predict the impact of policies on the overall efficiency within an industry, and thus on social welfare. Part of his argument was that high firm profits can stem from sources other than industry structure, namely firm-level differences. Demsetz (1973, p. 3) argued that the firm's "luck" in an ambiguous business setting, an "atypical insight by the management [team] of a firm", the firm's superior ability to "serve customers", or its "superior entrepreneurship" are plausible reasons why some firms attain higher levels of performance than others. As he noted, such performance differences may not adjust quickly, because the firm's resources may be firm-specific, immobile (i.e., difficult to transfer), and due to the inherent complexity of organizations (particularly large ones), difficult for competitors to duplicate. Thus, Demsetz's work indicates that "resource heterogeneity" and "resource immobility" could explain differential firm performance. All of these concepts are reflected in the RBV's basic conditions for attaining and sustaining a competitive advantage.

From a theoretical perspective, the ideas of Ricardo, Selznick, Penrose, and Demsetz may be considered the main precursors of the RBV (Barney & Arikan, 2001)[1]. The common ground among their theories is that firms may differ in terms of their resource position (i.e., resources, capabilities, competences) and that these differences have an impact on their performance. The next subsection turns to the development of the RBV and elaborates on its main assumptions, concepts and theoretical propositions.

2.2.2 MAIN CONCEPTS, ASSUMPTIONS, AND THEORETICAL PROPOSITIONS

In the mid-1980s, Birger Wernerfelt (1984) wrote a seminal article called the "Resource-based view of the firm". This article argued that firms can fundamentally differ from each other in terms of their resource endowments, and that these differences matter in explaining a firm's performance and growth. Wernerfelt (1984) proposed that focusing

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[1] For a discussion of other potentially influential researchers adopting a "resource perspective" in the field of strategy, see, for example, Conner (1991), Foss (1997), Hoskisson et al. (1999), Mintzberg et al. (1998), and Rugman and Verbeke (2004).

the analysis on a firm's resources instead of a firm's products yields new insights and perhaps different strategic options to grow the business and to increase the firm's long-term economic performance, particularly if it operates in multiple markets. A central element in in his paper is formed by the concept of "resource position barriers" in development and implementation that hinder competing firms from replicating a successful strategy. This is in essence similar to the notion of "entry barriers" to constrain competition within an industry, as suggested by the "structure-conduct-performance" (SCP) framework developed by Mason (1939) and Bain (1956, 1968).

Wernerfelt's article also suggested that resources can be developed for one product market and subsequently be used in other product markets, thereby realizing economies of scope. To analyse growth opportunities from a resource perspective, Wernerfelt (1984) proposed using an analytical tool called a "resource-product matrix". Here again, the starting point for considering potential growth avenues is formed by the current portfolio of resources rather than the current portfolio of products. Wernerfelt (1984) acknowledged that few normative implications could be drawn at that early stage of theory development, but suggested that the implementation of a growth strategy comprises both building new resources and leveraging existing ones, and, more importantly, developing the necessary capabilities to optimally balance these two lines of activity.

Two important articles by Jay Barney followed in 1986. The first article was a theoretical essay about the conditions under which a firm culture can confer a long-term competitive advantage (Barney, 1986a). A firm culture must be "valuable" and "rare" to provide a competitive advantage, and "imperfectly inimitable" to sustain it (Barney, 1986a). Barney elaborated on these conditions in detail. A culture is considered *valuable* if it confers "economic gains" on the firm, *rare* if it is, from a functional perspective, not common among a set of competing firms, and *inimitable* if it has characteristics that defy easy analysis and replication by competitors (Barney, 1986a). These three conditions have been adopted in later theoretical developments of the RBV (Barney, 1991).

Barney's (1986b) second paper concentrated on the cost dimension of carrying out a business strategy. The paper takes as its point of departure a simple but important arithmetic: A firm can only attain supranormal performance with its strategy if the earnings that result from delivering value to customers are less than fully absorbed by the costs of doing so. To understand the cost implications of a strategy, Barney (1986b)

proposed looking at the strategy's inputs (factors, resources) and the specific conditions of the markets in which strategic inputs can be bought and sold (so-called "strategic factor markets"). These strategic factor markets can operate at various levels of perfection; the higher the level of perfection the lower the spread between the effective cost and the effective return of a resource (Barney, 1986b). It follows that a resource can only generate above normal returns if it is acquired under imperfect market conditions, and at costs below its future value (this parallels Ricardo's theory of rents). Barney (1986b) argued that a firm may obtain such resources either due to "luck" or "superior insights" about the productive value of a resource. This conclusion seems to be in tune with Demsetz's (1973, p. 3) discussion of potential sources of abnormal profits: "Superior performance can be attributed to the combination of great uncertainty plus luck or atypical insight by the management of a firm."

The development of the resource-based view really gained momentum in 1991, when the *Journal of Management* devoted a special issue to the subject. In the special issue, Barney (1991) presented a theory of competitive advantage from a resource-based perspective. Barney (1991) took as his starting point two pivotal assumptions that sharply contrast with those used in market-based explanations of competitive advantage (Porter, 1980, 1985). First, the resources that a firm holds and applies in its strategies to create economic value can be different from those that existing or potential competitors hold or use ("resource heterogeneity") (Barney, 1991). Second, such interfirm resource differentials may not equalize for a long time if the characteristics of the underlying resources defy easy and cost-efficient transfer between firms ("resource immobility") (Barney, 1991).

Barney (1991) suggested that the extent to which individual firm resources contribute to sustained competitive advantage depends on four resource characteristics: (a) value, (b) rareness, (c) inimitability, and (d) non-substitutability. The first two are necessary and sufficient conditions for competitive advantage, while the latter two are necessary and sufficient conditions for sustaining a competitive advantage. These criteria became known as the VRIN criteria of the resource-based framework. Some years later, Barney (1997) presented a revised version of the framework called VRIO, which integrated the non-substitutability (N) criterion and the inimitability (I) criterion, and added organization (O) as a new criterion to the list.

A resource is considered *valuable* when it allows a firm to develop and deliver strategies that "improve its efficiency and effectiveness", or, put differently, when it helps the firm to "exploit opportunities or neutralize threats in [its] environment" (Barney, 1991, p. 106). The value of a resource is thus in part determined by contextual factors – a resource that proves to be useful in one setting may be of little importance or utility in another setting (Amit & Schoemaker, 1993; Barney & Arikan, 2001).

A resource is *rare* when only a few competing firms possess that resource in the same amount and quality (Barney, 1991). A *valuable* resource that is simultaneously also *rare* excludes other firms from implementing the same strategy to attain a competitive advantage (Amit & Schoemaker, 1993; Barney, 1991). Expressed more formally, a resource is *rare* to the extent to which its demand exceeds its long-term supply and to the extent to which it is heterogeneously distributed among competing firms (Barney & Arikan, 2001; Barney, 1991, 2001a; Peteraf & Barney, 2003; Peteraf, 1993; Wernerfelt, 1984).

A resource is considered *inimitable* if it cannot be cost-effectively replicated by competitors. Barney (1991) suggested that a competitive advantage resulting from a *valuable* and *rare* resource can only be sustained over time when competing firms lacking that resource cannot obtain it. Thus, a resource needs to be *inelastic in supply* (Barney & Arikan, 2001; Dierickx & Cool, 1989) or, differently expressed, *imperfectly imitable* (Barney, 1991; Lippman & Rumelt, 1982).

There are a number of mechanisms that can constrain imitation efforts of competing firms (Mahoney & Pandian, 1992; Rumelt, 1984, 1987). Among the more common ones are *causal ambiguity* (Barney, 1991, 2001a; Dierickx & Cool, 1989; Grant, 1991; Lippman & Rumelt, 1982; Mahoney & Pandian, 1992; Peteraf, 1993; Reed & DeFillippi, 1990); *social complexity* (Barney, 1991, 2001a; Mahoney & Pandian, 1992); *history/path dependency* (Barney, 1991, 2001a; Dierickx & Cool, 1989)*;* and *property rights* (Mahoney & Pandian, 1992; Rumelt, 1984). Another interesting mechanism that, though it does not directly constrain imitation, at least can prevent imitating firms from catching up quickly, consists of "*time compression diseconomies"* (Dierickx & Cool, 1989, p. 1507f). For a detailed discussion of these mechanisms see Chapter 3 (Section 3.4.3).

A resource is considered *non-substitutable* when alternatives (single resources or resource combinations) are either non-existent, functionally inferior, or costly to obtain (Barney & Arikan, 2001; Barney, 1991, 2001a; Dierickx & Cool, 1989; Mahoney &

Pandian, 1992; Peteraf, 1993; Wernerfelt, 1984). As an example, consider two firms, A and B, that operate in the same industry but possess different sets of resources. Firm A has an excellent reputation among its customers, which positively affects the cost of acquiring new customers. Firm B has a reputation that is less well established, but its competence in marketing management is stronger. B uses a highly sophisticated marketing systems and creative programmes to target and acquire new customers. If both A and B achieve similar net acquisitions costs per customer, these two resources – firm reputation and marketing competence – may be considered strategic substitutes. The same logic can be applied to all other competitors of firm A. If they cannot develop either a firm reputation or a marketing competence of equivalent value, firm A's reputation can be considered to be imperfectly substitutable.

Finally, the resource must be *organizationally* linked to performance-relevant *supplementary* resources (Barney, 1997). This means that the strategic benefits that a resource effectively provides critically depend on the presence of inter-dependent firm resources involved in the value creation process. Such supplementary resources include, for instance, the firm's formal organizational structure, communication routines, pay and reward schemes, or infrastructure (Barney, 1997). Apart from those basic resources, other more sophisticated resources might be required to capture the resource's synergistic effects. For example, a firm with excellent R&D capability may likely require adequate complementary marketing capabilities and other assets to successfully commercialize its product innovations (Teece, 1986a).

In response to the burgeoning resource-based literature, Peteraf (1993) attempted to consolidate the conditions for competitive advantage and economic rents in a simple conceptual framework that isolates four basic conditions that must be jointly fulfilled: "resource heterogeneity", "resource immobility", "ex ante limits to competition", and "ex post limits to competition". Echoing Barney (1991), she pointed out that a positive differential in the firm's resource base relative to competitors (*resource heterogeneity*) is the most fundamental requirement for competitive advantage. A positive differential allows the firm to outcompete other firms in terms of production costs, value generated for customers, or both. She further noted that the rent streams emanating from such resource differentials can only persist over time if competing firms cannot close their resource gaps in corresponding resource markets. That is, these resources need to have characteristics that make them difficult or costly to trade (*resource immobility*). This

view is also consistent with the model presented by Barney (1991), which assumes that resource immobility is central to competitive heterogeneity.

The third condition, *ex ante limits to competition*, refers to the cost side of building up a favourable resource base. This condition is essentially identical to Barney's discussion of the costs associated with sourcing resources in strategic factor markets (Barney, 1986b). As Peteraf (1993) pointed out, resources can only provide positive rent streams if they are obtained at costs below the value that they will generate for the firm in the future. In other words, a firm must have been able to consciously (i.e., by using corresponding capabilities) or unconsciously (i.e., by chance) take advantage of imperfectly working resource markets. As an illustration, consider an auction with four telecommunication firms, A, B, C, and D, bidding on mobile telephony licenses. These firms determine the highest bidding price they are willing to offer on the basis of the estimated future returns that the licenses generate for them. Further assume that the bidding process drives license prices up to the point where each firm's bidding price reflects the expected future, firm-specific revenue streams related to the license. Firm A, B, and C submit the highest offer and receive a license, while firm D submits the lowest offer and consequently leaves empty-handed. Further assume that firm A overestimates its effective returns, firm B correctly estimates its effective returns, and firm C underestimates its effective returns. It follows that only firm C gains a competitive advantage. Firm A and B, although obtaining a licence, do not gain a competitive advantage – firm A, in fact, gains a competitive disadvantage. Ironically, even firm D, with no license, may increase its competitiveness relative to firm A, as it does not have to shoulder the cost of an overpriced license.

Finally, the *ex post limits to competition* refer to the condition of imperfect imitation and lack of substitution mentioned by Barney (1991). Peteraf (1993) noted that a competitive advantage can only persist if the underlying rent-yielding resources remain, from a functional point of view, "fixed" or "quasi-fixed" in supply. A number of mechanisms, according to Peteraf, can limit ex post competition. They include "causal ambiguity" (Lippman & Rumelt, 1982; Reed & DeFillippi, 1990) and an array of other barriers to imitation, from "patents" to "response lags" to "time compression diseconomies" (Dierickx & Cool, 1989; Mahoney & Pandian, 1992; Rumelt, 1984, 1987).

The assumptions, concepts, and propositions discussed above form the foundation of the resource-based theory of competitive advantage and firm performance (Figure 1).

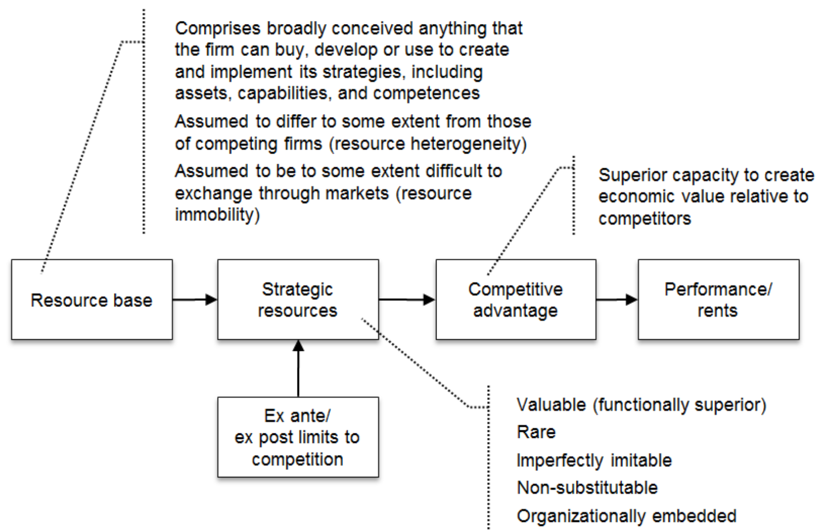

Figure 1: The RBV model of competitive advantage and firm performance

The work of Lippman and Rumelt (1982), Wernerfelt (1984), Barney (1986b, 1991), Dierickx and Cool (1989), Rumelt (1984, 1987), and Peteraf (1993) can be considered the core of the resource-based view. In addition, there are numerous other strategy scholars who have helped to grow, solidify, and position the RBV: they include Conner (1991), Mahoney and Pandian (1992), Amit and Shoemaker (1993), and many others (see, for example, Barney et al., 2011, 2001).

The RBV sparked resource-based research in a wide range of disciplines, including marketing, information technology, and human resource management (Barney & Arikan, 2001). In addition, since the early 1990s a number of research streams that also focus on resources (including capabilities, competences, and assets) and their effects on firm performance have developed out of or in parallel to the RBV. The following section highlights the most important of these developments, including the dynamic capabilities view, the knowledge-based view, the core competence perspective, and the competence-based management perspective.

2.3 CLOSELY RELATED RESOURCE-BASED PERSPECTIVES

2.3.1 DYNAMIC CAPABILITY VIEW

In the 1990s, a number of researchers began to consider the phenomenon of competitive advantage from a more evolutionary, process-oriented perspective in the tradition of Schumpeterian economics (Schumpeter, 1934) and evolutionary economics (Nelson & Winter, 1982). Collectively, the work carried out by these researchers became known as

the dynamic capabilities view (DCV) (Ambrosini & Bowman, 2009; Eisenhardt & Martin, 2000; Helfat & Peteraf, 2009; Helfat et al., 2007; Teece, Pisano, & Shuen, 1997; Teece & Pisano, 1994; Teece, 2007; Winter, 2003; Zahra, Sapienza, & Davidsson, 2006; Zollo & Winter, 2002). Scholarship in this area focuses on the processes and capabilities necessary to create and maintain a competitive advantage, particularly in fast-paced, complex, and difficult-to-predict environments.

The DCV suggests that in the light of changing environments, a firm's competitive advantage is likely to erode if the firm keeps its resource base constant over time – even when that resource base is difficult to imitate for competitors. Thus, the DCV posits that the creation as well as the maintenance of competitive advantage in such environments require dynamic capabilities.

Teece et al. (1997, p. 515) describe dynamic capabilities as the "firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments". Eisenhardt and Martin (2000, p. 1107), on the other hand, define them as "[t]he firm's processes that use resources – specifically the processes to integrate, reconfigure, gain and release resources – to match and even create market change. Dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die." Eisenhardt and Martin (2000) note that such routines include, for example, those for creating and improving products, developing collaborative relationships with partners, making strategic decisions, transferring knowledge, or allocating resources.

Zollo and Winter (2002, p. 340) describe a dynamic capability as "a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness". They emphasize that dynamic capability encompasses only routines capable of changing other capabilities (routines). This conceptualization is narrower than the one proposed by Eisenhardt and Martin, since it excludes routines that have no direct effect on other routines, such as on those involved in the creation of new products.

In an attempt to consolidate earlier definitions, Helfat et al. (2007, p. 4) define the term dynamic capability as "the capacity of [a firm] to purposefully create, extend, or modify its resource base." The firm's "resource base" encompasses all "tangible, intangible, and human assets (or resources) as well as capabilities which [it] owns, controls, or has access to on a preferential basis" (Helfat et al., 2007, p. 4). In this definition, the authors

intend to minimize the potential charge of making tautological statements with respect to competitive advantage and performance by replacing the term "capability" with the term "capacity", which denotes "the ability to perform a task in at least a minimally acceptable manner" (Helfat et al., 2007, p. 5). This definition is somewhat unusual, insofar as it leaves the purpose open. In other words, a dynamic capability may not only be used to create or adequately respond to environmental changes, but potentially also to achieve other firm goals that are not directly related to changes in the environment.

Finally, Teece (2007, p. 1319) provides a revised version of earlier definitions, noting that "[d]ynamic capabilities can be disaggregated into the capacity (a) to sense and shape opportunities and threats, (b) to seize opportunities, and (c) to maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the business enterprise's intangible and tangible assets."

To what extent, then, are dynamic capabilities related to competitive advantage and firm performance? Teece et al. (1997) describe dynamic capabilities as a set of processes that change the firm's present asset position, which in turn affects the firms competitive advantage and performance. In their view, the asset position is path dependent, which means that any future position will depend on the present position, and on the development path chosen (e.g., the nature and amount of investments).

In a similar vein, Eisenhardt and Martin (2000) suggest that dynamic capabilities consisting of a collection of processes to extend and reconfigure the resource base can affect competitive advantage. They argue that dynamic capabilities among firms are from a functional perspective fairly similar and thus by themselves not a source of competitive advantage. They suggest, however, that firms are much less homogenous in their skills and abilities to make effective use of dynamic capabilities (i.e., some use them more intelligently and intensely than others) which gives rise to competitive advantage.

In a more recent article, Teece (2007) provides a revised version of the causal logic that links dynamic capabilities with competitive advantage and performance. As noted above, in his conceptualization dynamic capabilities consist of three interrelated classes, "sensing" opportunities (i.e., identification of investment opportunities), "sizing" opportunities (i.e., making investments), and reconfiguration and transformation of the asset base. He suggests that their joint application results in a dynamic adaptation of the asset base, which affects competitive advantage and performance. The impact of dynamic capabilities on competitive advantage and firm performance may be measured

along dimensions of fitness. Teece (2007) argues that two measures are of importance: “environmental” fitness and “evolutionary” fitness. In a similar vein, Helfat et al. (2007) propose to measure the effects of dynamic capabilities on performance in terms of “technical fitness” and “evolutionary fitness”.

The concepts and propositions discussed above form the basis of the dynamic capability view of competitive advantage and firm performance. The main elements of this view are summarized in the diagram below (Figure 2).

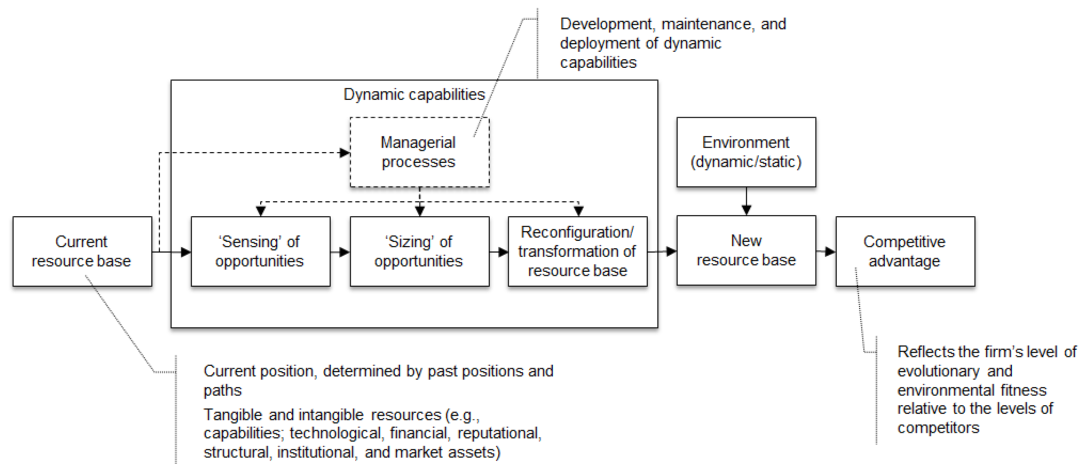

Figure 2: Dynamic capability perspective of competitive advantage

2.3.2 KNOWLEDGE-BASED VIEW

The 1990s also witnessed the emergence of the knowledge-based view of the firm (KBV), which recognizes the firm as something more multifaceted than a simple mechanism to assemble and transform inputs into products and services to satisfy market demand. This literature builds upon ideas and concepts from diverse research traditions, including economics, sociology, organization theory, and philosophy (Eisenhardt & Santos, 2006; Kaplan, Schenkel, von Krogh, & Weber, 2001). Research in this stream concentrates on two broad subject areas: (1) the firm’s existence, scope, and organization, and (2) the firm’s specific knowledge stocks and capabilities as the basis of differential firm performance (Conner & Prahalad, 1996; DeCarolis & Deeds, 1999; Eisenhardt & Santos, 2006; Grant, 1996a; Kogut & Zander, 1992, 1996; Langlois, 1992; Leonard-Barton, 1992; Liebeskind, 1996; Nahapiet & Ghoshal, 1998; Nonaka, 1994; Spender, 1996a; Teece, 1998; Tsoukas, 1996; Winter, 1987).

A central thesis advanced by the KBV for the existence of the firm is that the creation, coordination, transfer, utilization, and protection of knowledge happen more effectively

or efficiently through firms than through markets (Cohen & Levinthal, 1990; Grant & Baden-Fuller, 2004; Grant, 1996a; Kogut & Zander, 1992, 1996; Liebeskind, 1996; Nahapiet & Ghoshal, 1998; Nonaka, 1994; Spender & Grant, 1996; Teece, 1998). Kogut and Zander (1992), for example, suggest that firms are

> social communities in which individual and social expertise is transformed into economically useful products and services by the application of a set of higher-order organizing principles. Firms exist because they provide a social community of voluntaristic action structured by organizing principles that are not reduceable to individuals. (p. 384)

Grant (1996a) asserts that the primary function of the firm is to integrate specialized knowledge possessed by individuals, not for the sake of providing a platform of social interaction but rather to solve a more fundamental issue of economic production. He starts out from the assumption that all production processes require as input knowledge, which stems directly or indirectly from individuals. To overcome human limitations in assimilating and productively applying knowledge, individuals need to specialize in certain knowledge domains. For the efficient production of goods and services, the main task is then to manage and synthesize relevant specialized knowledge. Grant suggest that markets are less well suited to this task than firms, as they provide, for example, no adequate mechanism to transfer specialized knowledge possessing an implicit dimension.

Scholars adopting a knowledge-based perspective assert that the most essential of all strategic resources is knowledge (Ancori, Bureth, & Cohendet, 2000; Conner & Prahalad, 1996; DeCarolis & Deeds, 1999; Grant, 1996a, 1996b; Kogut & Zander, 1996; Liebeskind, 1996; Nahapiet & Ghoshal, 1998; Spender, 1996b). What, then, is knowledge? Referring to Socrates and Plato, Liebeskind (1996, p. 94), for example, defines it as "information whose validity has been established through tests of proof. [It] can therefore be distinguished from opinion, speculation, beliefs, or other types of unproven information." Other scholars adopting a less positivistic epistemology consider it something less universal, more subjective, and conditional. Nonaka and Takeuchi (1995), for example, define it as a "justified true belief". Scholars also point out that knowledge can be distinguished from information, even though the two concepts are related (Ancori et al., 2000). On a fundamental level, knowledge may be understood as a stock variable and information as a flow variable. As Nonaka and Takeuchi (1995, p. 58) suggest, "information is a flow of messages, while knowledge is created by that very flow of information, anchored in the beliefs and commitment of its holder."

Knowledge may take various forms and be classified along several dimensions. Leonard-Barton (1992, p. 113), for example, divides knowledge relevant to firms into four categories: “employee knowledge and skills”, “technical systems”, “managerial systems”, and “values and norms”. Gorman (2002) distinguishes between procedural knowledge (knowing how), declarative knowledge (knowing what), judgmental knowledge (knowing when), and reflective knowledge (knowing why). Other scholars apply one or more dimensions to classifying knowledge, including implicit versus explicit, internal versus external, technical versus non-technical, individual versus social, and conscious versus automatic (e.g., Lorenzoni & Lipparini, 1999; Spender, 1996c). However, scholars have frequently used “codifiability” or “explicitness” as a fundamental categorization criteria, and hence differentiated between (1) explicit knowledge (i.e., declarative knowledge or know about), and (2) tacit knowledge (i.e., procedural knowledge or know how) (Kogut & Zander, 1992; Nonaka & Takeuchi, 1995; Spender, 1996a). These two types are discussed next.

Explicit knowledge refers to the things that we know about something and that can be expressed and encoded through some sort of language system (Grant, 1996a). This category encompasses, for example, theoretical models, best practices, operation manuals, data base entries, and other fact-based material.

Tacit knowledge, on the other hand, refers to something that we know, but that is extremely difficult or even impossible to elicit and explicate by means of a formal language system (Grant, 1996a; Polanyi, 1966). To illustrate tacit knowledge, one might consider, for example, the procedural knowledge involved in flying a helicopter. While it is clearly possible to express and convey some of the basic knowledge about flying such a vehicle by such means as theories, operation procedures, and instructional text, it is next to impossible to capture all the knowledge required to master it in practice, such as what muscles to activate to keep the balance in different situations. Such tacit knowledge, it is argued, can only be recognized when it is effectively applied (Nonaka & von Krogh, 2009). Taking a slightly broader view of tacitness than Polanyi, Spender (1996b) points out that tacit knowledge includes all knowledge that has the status “uncodified”. Spender (1996b) suggests that the tacit knowledge relevant in particular work environment can be further split into “conscious”, “automatic”, and “collective” knowledge. Both conscious and automatic knowledge occur at the individual level. The former type may be understood as “explicit individual knowledge” tied to a specific work space, while the latter type emerges when the former gradually settles on a more subconscious level.

Typically, both types of individual knowledge are applied in concert in the performance of activities. The third subtype, collective knowledge, may be understood as a common inventory of knowledge relevant to a specific work space, which individuals may or may not apply in conjunction with their own stocks of tacit knowledge (Spender, 1996b).

The scope, cost, speed, and accuracy at which knowledge can be disseminated and used within and across organizational boundaries largely depends on its "transferability" (Grant & Baden-Fuller, 1995; Grant, 1996a; Kogut & Zander, 1992). Tacit knowledge may be, depending on its definition, not "articulable" (Polanyi, 1966), or simply as of yet "unexpressed" (Spender, 1996b). It may only be recognizable through its practical use (Nonaka & von Krogh, 2009), and hence difficult to convey to others. Explicit knowledge, in contrast, is encoded and thus capable of being quickly, reliably and cost-efficiently distributed to other people and settings (Grant, 1996a). Apart from the technical feasibility of abstracting and communicating knowledge, there are also other factors that can influence the rate and effectiveness of transferring knowledge, including motivation (Osterloh & Frey, 2000), the receiver's ability to assimilate new knowledge (Cohen & Levinthal, 1990), the presence of appropriate social knowledge (Kogut & Zander, 1996), and geographical proximity or location (Almeida, 1996; Pinch, Henry, Jenkins, & Tallman, 2003).

Another dimension that distinguishes tacit from explicit knowledge is the degree of "appropriability" (Grant, 1996a; Teece, 1986a). If the knowledge is tacit, the associated benefits may be largely appropriated by the firm. In contrast, if the knowledge is rather explicit, it may be much harder and costlier to exploit its benefits, since such knowledge, once in the public space, may be regarded as a resource freely accessible to anyone, unless it is protected through legally enforceable IP rights such as copyrights or patents (Teece, 1998).

The KBV posits that knowledge may reside at the of individual, group, organizational, or inter-organizational level (Kogut & Zander, 1992; Spender, 1996a). There appears to be little disagreement among scholars that explicit knowledge can exist at all these levels. With respect to tacit knowledge, however, views diverge. Some scholars (Grant & Baden-Fuller, 1995; Grant, 1996a) argue that knowhow is largely accumulated and stored at the individual level, while others argue that knowhow can also exist at social levels (Kogut & Zander, 1992; Spender, 1996a). Kogut and Zander (1992), for example, contend that

> knowledge is also expressed in regularities by which members cooperate in a social community (i.e., group, organization, or network).... [Since] hiring new workers is not equivalent to changing the skills of a firm, an analysis of what firms can do must understand knowledge as embedded in the organizing principles by which people cooperate within organizations. (p. 383)

Expanding, managing and exploiting a firm's knowledge base involves a number of knowledge management capabilities. Spender (1996a) suggests that the two fundamental capabilities involved are knowledge generation and knowledge utilization. Kaplan et al. (2001) identify six basic capabilities – knowledge creation, integration, replication, and protection, as well as knowledge "absorption" and "destruction". In addition, they propose that for the long-term success of the firm, the firm needs also to have a meta-capability for configuring and aligning these capabilities in accordance with its internal and external contingencies. Grant (1996a) suggests that the most fundamental of all capabilities is knowledge integration, as this is the principal rationale for the firm's existence. The following discussion highlights the main knowledge-related capabilities, which include (1) sourcing, (2) creation, (3) integration, (4) protection, and (5) disintegration.

Knowledge sourcing may be understood as the ability to identify and access potential sources of knowledge. Knowledge may be obtained through different routes. One is to buy tradable knowledge assets, such as patent licenses, directly in corresponding resource markets (Arora, 1995). A second option is to recruit individuals or teams with corresponding knowledge (McEvily & Chakravarthy, 2002). A third is to access knowledge through strategic alliances and other cooperative agreements, such as joint ventures and partnerships with universities, suppliers, and buyers (DeCarolis & Deeds, 1999; Grant & Baden-Fuller, 2004; Hamel, 1991; Liebeskind, Oliver, Zucker, & Brewer, 1996; Powell, Koput, & Smith-Doerr, 1996). Knowledge may also be obtained, for example, by attending conferences and tradeshows, by scrutinizing patent applications and other relevant literature, or by reverse engineering technologies (Appleyard, 1996; McEvily & Chakravarthy, 2002). Finally, knowledge may also be gained by buying a business unit or an entire firm that holds the desired knowledge (Ranft & Lord, 2002; Vermeulen & Barkema, 2001).

The ability of the firm to effectively accumulate knowledge from external sources may also be influenced by what Cohen and Levinthal (1990) term "absorptive capacity". This encompasses, among other things, the ability to judge the strategic value of knowledge

given the firm's situation and the ability to convert knowledge so that it can be productively used. Cohen and Levinthal suggest that new knowledge may be more easily absorbed if it somehow links to the firm's pre-existing knowledge stock. In other words, the accumulation of knowledge is to some extent path dependent.

Knowledge creation capability may be understood as the firm's "process of making available and amplifying knowledge created by individuals as well as crystallizing and connecting it to an organization's knowledge system" (Nonaka & von Krogh, 2009, p. 635). There seem to be a number of factors that enhance the firm's ability to create knowledge. One is social capital. Nahapiet and Ghoshal (1998) point out that firms outperform markets in creating intellectual capital because they are endowed with higher levels of social capital. Another factor is organizational focus (or thematic relatedness). Kogut and Zander (1992, p. 384) suggest that the "central competitive dimension of what firms know how to do is to create and transfer knowledge efficiently within [a specific] organizational context".

Knowledge integration may be understood as the firm's ability transfer and aggregate knowledge. Grant (1996a) asserts that for efficient production, the primary task of the firm is to coordinate the work and diverse inputs of individuals. He argues that from a knowledge-based perspective, the firm needs to integrate the knowledge of various specialists in ways that firstly keeps overall coordination and communication costs low and secondly preserves the specialist status of individuals. According to Grant (1997), there are four methods – transfer, direction, sequencing, and routines – that can be used for such integration.

The *transfer* method can be viewed as a set of rules or standards (e.g., policies, procedures, norms) that support the process of explicating knowledge to others. In situations where the number of potential recipients is large, *direction* may be a more appropriate method for sharing knowledge among organizational members. Thus, specialists synthesize their knowledge into directives (e.g., rules, instructions, and procedures), which inform and regulate the activities of other organizational members possessing different sets of knowledge. In situations where direct knowledge transfer would unnecessarily normalize the knowledge sets of individuals and thus reduce the benefits that result from specialization, *sequencing* might be a more suitable method for knowledge integration. Sequencing coordinates the specialized inputs of individuals by means of plans. On a more elaborate level, knowledge may also be integrated through

routines, which may be viewed as deeply embedded repertoires of non-rule-based, self-adjusting arrangements of activities (Grant, 1996a).

Knowledge protection capability refers to the firm's ability to control the diffusion and use of proprietary knowledge outside organizational boundaries (see Kaplan et al., 2001, p. 22). There are different approaches and techniques that might be used for this purpose. One is to keep and store it in a tacit rather than in an explicit, easily transferred form (Kogut & Zander, 1992). Another one is to keep it secret (Liebeskind, 1996). This may be enforced, for example, through contractual agreements (e.g., employment contracts, non-disclosure agreements with alliance partners) and other safety policies and measures (e.g., information security systems). A third way is to make use of intellectual property rights constructs, such as patents, copyrights, and commercial secrets (Liebeskind, 1996; Teece, 1998). A final way to confine the flow of valuable knowledge to current or future competitors is organizational integration (Foss, 1993). A firm may opt to integrate market participants (e.g., suppliers, alliance partners, distributors), if there is a risk that they could absorb (e.g., by learning) in a relatively uncontrolled fashion strategically relevant knowledge from the firm.

There is always a latent risk that explicit and even tacit knowledge might leak beyond organizational boundaries to competing firms (Kogut & Zander, 1992). Knowledge may leak out, for example, when employees leave the firm. Competing firms may subsequently employ them to imitate the knowledge. Such imitation efforts, however, can be considered at best imperfect, as they are costly, time consuming, and not risk free (Grant, 1996b).

Knowledge disintegration capability may be understood as the ability to identify and remove dysfunctional or otherwise obsolete knowledge, or to disaggregate knowledge sets into more manageable parts. Based on the assumption that even knowledge has a certain shelf life during which it can be used productively by the firm, Kaplan et al. (2001, p. 18) point out that it may be necessary to intentionally get rid of knowledge, if it has not already been eroded by mechanisms such as "forgetting" or workforce fluctuation, or to "disassemble the interconnectedness of knowledge" to maintain strategic flexibility and innovativeness. Along similar lines, Leonard-Barton (1992) argues that "core capabilities", conceptualized as groupings of knowledge sets, negatively affect the firm's ability to create new products and processes, and hence, its ability to renew its core

capabilities over time. Thus, disintegration may be considered an important capability for the firm's overall ability to change.

Does competitive advantage, then, arise from knowledge, from knowledge capabilities, or from both? The KBV posits that from a strategic point of view, knowledge represents a valuable resource. It undergirds all productive activities of the firm (Grant, 1996a); it supports innovation (Nonaka & Takeuchi, 1995); it may be used on a larger scale and in larger scope (Grant, 1996a); and it is not exhausted by utilization (King & Zeithaml, 2003). It may further be imperfectly transferable and imitable, and hence it may grant the owner some exclusivity in use (Grant, 1996a). Knowledge *per se* has no value, it receives its value through its effective use, which may require a set of "complementary resources" (Teece, 1998, p. 72). The value of knowledge may furthermore also be contingent on other factors, such as the firm's industry and competitive setting (King & Zeithaml, 2003).

Although knowledge in general is seen as something valuable, it must also be noted that knowledge can only contribute to economic value if its benefits outweigh its costs (Kaplan et al., 2001). Such costs may include, for example, research and development, knowledge transfer and integration (e.g., training, learning on the job), and knowledge protection by designing and operationalizing an effective system of institutional arrangements (Liebeskind, 1996) and IP rights (Teece, 1998). In addition, there might exist indirect costs like strategic inflexibility (Leonard-Barton, 1992). Thus, knowledge, in principle, can also detract value from the firm.

Like any other resource, knowledge that is freely available through efficiently operating markets cannot be a source of competitive advantage or superior performance (Spender & Grant, 1996). A firm cannot expect, for example, to gain a competitive advantage from hiring a tax specialist if competing firms can access the same markets to hire people with comparable expertise on similar terms.

Although it may be possible to access or acquire valuable knowledge from external sources with corresponding capabilities (Henderson & Cockburn, 1994), it is commonly argued that competitive advantage arises from knowledge that is created and used within the firm, and at the same time difficult or costly to recreate and use for competing firms (Kogut & Zander, 1996; Nahapiet & Ghoshal, 1998; Nonaka & Takeuchi, 1995; Nonaka, 1991, 1994; Spender, 1996a).

Although all types of organizational knowledge (tacit and explicit) can in principle confer competitive advantage (Spender, 1996b), it is argued that tacit knowledge provides the highest potential for competitive advantage, since it is relatively immobile and difficult to imitate (DeCarolis & Deeds, 1999; Grant, 1996a). It has also been suggested that competitive advantage may arise from the interplay of different knowledge types (Spender, 1996b)

Overall then, a competitive advantage may be sustained if the imitation of knowledge for competing firms is costly or difficult. Barriers to imitation include knowledge attributes such as tacitness, complexity, embeddedness, and specificity (Grant, 1996a; McEvily & Chakravarthy, 2002; Teece, 1998); protective institutional arrangements (Liebeskind, 1996); intellectual property rights such as commercial secrets, patents, and copyrights (Teece, 1998); ambiguity from the interplay of different knowledge types (Spender, 1996a); and path dependency in developing absorptive capacity (Cohen & Levinthal, 1990).

Apart from knowledge bases, scholars also claim that competitive advantage can arise from knowledge capabilities. Nonaka (1994) argues that the most fundamental source of competitive advantage is the firm's capability to create organizational knowledge that enables the firm to improve or renew its processes and products. Such knowledge may stem from original research activities, but may also be created out of existing knowledge. Similarly, Spender (1996a) contends that competitive advantage flows from the firm's capabilities in creating and utilizing knowledge. Grant (1996a), by contrast, suggests that what is at the heart of organizational performance is the ability to integrate knowledge rather than to create it. Osterloh and Frey (2000) assert that knowledge creation and transference can confer long-standing competitive advantage. Cohen and Levinthal (1990) claim that the absorption capability enhances the firm's ability to innovate, which in turn positively affects its performance. Nahapiet and Ghoshal (1998) make the point that the ability to create intellectual capital from social capital can lead to higher than normal performance. Finally, Liebeskind (1996) argues that to sustain a knowledge-based advantage over time, the ability to protect knowledge (particularly if it cannot be cost-efficiently covered by a property rights regime) is of central importance.

The diagram below provides an overview of the main knowledge-based concepts and their links to competitive advantage.

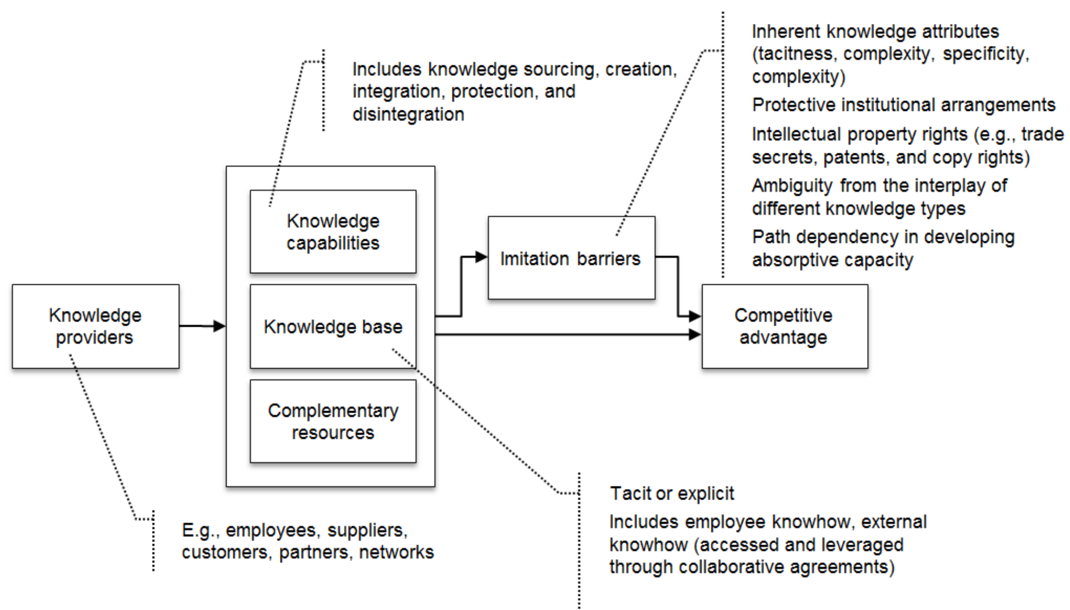

Figure 3: Knowledge-based perspective of competitive advantage

Overall, then, the KBV suggests that a firm's portfolio of knowledge assets and capabilities may be a source of sustained competitive advantage and superior firm performance. The underlying theory of competitive advantage is by and large consistent with RBV, and as such can be considered an extension or a "special instance" of the RBV (DeCarolis & Deeds, 1999; Eisenhardt & Santos, 2006).

2.3.3 Core competence perspective

In 1990 Prahalad and Hamel (1990) published in the *Harvard Business Review* an article entitled "The core competence of the corporation", which tried to unravel the true sources of competitive advantage of the globally operating multi-business firm. Prahalad and Hamel (1990) called into question the prevailing view that competitive advantage is primarily attributable to the firm's position in product markets (Porter, 1980, 1985) by suggesting that firm performance largely depends on its ability to conceive, develop, share, and utilize distinctive and difficult-to-imitate core competences.

Prahalad and Hamel (1990, p. 81) define core competences as the "collective learning in the organization, especially how to coordinate production skills and integrate multiple streams of technologies." Or as Coyne et al. (1997, p. 43) put it: "A core competence is a combination of complementary skills and knowledge bases embedded in a group or team that results in the ability to execute one or more critical processes to a world-class standard". These definitions suggest that the firm's assets and capabilities are integrated,

combined, and cultivated for a particular purpose. This purpose, as the core competence concept suggests, is to attain a distinctive competitive position in developing and making a particular a set of multi-purpose intermediate products and services (e.g. technologies, modules, system components, assemblies, etc.), referred to as “core products”, that can either be sold to external customers or used internally in various business-line-specific operational processes or business-line-specific end products and services (Bogner, Thomas, & McGee, 1999; Prahalad & Hamel, 1990). They may be held in a variety of domains from product development to logistics (Coyne et al., 1997). In order for a competence to be considered core for the firm it needs to comply with the following three criteria.

First, it must substantially contribute to outcomes that customers favour and appreciate (Hamel, 1994; Prahalad & Hamel, 1990). One essential function of a core competence is thus to augment benefits for customers along such dimensions as quality, performance, functionality, design, or reliability. Hamel (1994) notes that these benefits are dimensions of the competence outcome, and not of the competence itself. He notes that customers may have difficulties with ascertaining on which core competences, or specific characteristics of core competences, these benefits are effectively grounded. For instance, competence in designing small chips may result in an array of small electronic devices with rich functionality. Such benefits are discernable at the level of the product; however, this information may not suffice to make reliable inferences about the knowledge, technologies, and skill sets involved in making and delivering these products. A special case is formed by competences that increase the firm’s operational efficiency. Such competences may still be considered core, even if the firm decides not to share the cost advantages with their customers (Hamel, 1994).

Second, a core competence needs to be such that it can be used in different product markets, and it must simultaneously enable the firm to make significant inroads into these markets (Hamel, 1994; Prahalad & Hamel, 1990). In other words, the market potential associated with the outputs of a competence needs to be sufficiently large and accessible in order to exploit economies of scope. For example, a core competence in microchip design may allow a firm to serve various products markets ranging from cardiac pacemakers to navigation systems.

Finally, a core competence needs to be imperfectly imitable (Prahalad & Hamel, 1990). In other words, it needs to have some characteristics that competitors find difficult or

costly to specify and replicate. Core competences are clearly non-tradable in the sense that they cannot be transferred from one firm to another firm – hence, they need to be developed through firm internal processes. Competing firms may attempt to imitate them by obtaining or developing the skills, knowledge, technologies and other resources that they expect to underlie a valuable core competence – but may, however, find themselves incapable of fully replicating the "pattern of internal coordination and learning" at the firm that has the advantage (Prahalad & Hamel, 1990, p. 84). Furthermore, such imitation efforts are unlikely to succeed if the core competence in question epitomizes the idiosyncratic, path-dependent resource position of another firm (see Collis, 1991).

To confer competitive advantage, core competences need not only to be difficult to imitate but also relatively scarce among competing firms (Collis, 1991; Hamel, 1994). Collis (1991) states:

> While every firm may aspire to develop a core competence, it is important to recognize that any such competence will be valuable only if it is 'distinctive.' That is to say, the resources the firm possesses must still be evaluated against those held by competitors, because only a competitively unique and superior competence can be a source of economic value. (p. 51)

Furthermore, it is likely that a firm's long term performance relies not only on a single core competence, but rather on the development and use of a set of interrelated distinctive (core) competences (see, e.g., Eden & Ackermann, 2010). The above-mentioned concepts and propositions that undergird the core competence perspective on competitive advantage and performance are summarized in Figure 4.

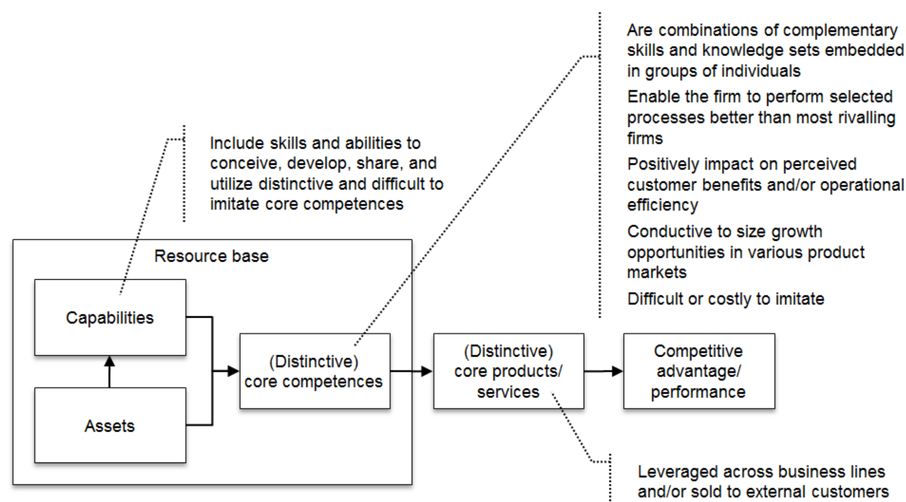

Figure 4: Core competence perspective on competitive advantage and firm performance

2.3.4 THE COMPETENCE-BASED MANAGEMENT PERSPECTIVE

After the publication of Prahalad and Hamel's article in 1990 there followed a series of books and articles with the central theme of competences, which eventually developed into the competence-based management (CBM) perspective (e.g., Ackermann & Eden, 2011a; Bogner et al., 1999; Bogner & Thomas, 1994; Eden & Ackermann, 1998, 2010; Hamel & Heene, 1994; Heene & Sanchez, 1997; King, Fowler, & Zeithaml, 2001; Lado, Boyd, & Wright, 1992; Lei, Hitt, & Bettis, 1996; Mansour, 1998; Sanchez, 2004). The main impetus for this work came from a group of strategy scholars who considered a paradigm change to be necessary for the development of more comprehensive strategic management theories that would also reflect the challenges of attaining competitive advantage in unstable or swiftly changing environments (Sanchez & Heene, 1997a; Sanchez, 2004). In the following I will highlight the key concepts and assumptions of this literature that most closely relate to competitive advantage.

The CBM conceptualizes the firm as a "goal seeking [open] system" (Sanchez, Heene, & Thomas, 1996a, p. 13). Firms are not isolated islands; they are linked to other systems (e.g., suppliers), and can draw on accessible resources that lie outside their "boundaries" in the broader ecosystem (Sanchez & Heene, 1996). As other firms may vie for the same resources vital for the firm's attainment of goals, the firm is in competition with other firms not only in product markets but also resource markets (Sanchez, 1997). Given the changing nature of markets, a critical aspect for long-term performance, then, is that the firm's system is designed so that it provides some level of "strategic flexibility", meaning that is "capable of accessing and coordinating a changing array of input resources (some internal, but many external) that enable the creation of a changing array of outputs" (Sanchez, 1997, p. 941).

The firm as an adaptive open system comprises six hierarchically arranged elements – "strategic logic", management processes, intangible resources, tangible resources, operations, and "product offerings" – and also maintains exchange relationships to exogenous entities such as customers, suppliers, partners, and other resource providers (Sanchez & Heene, 1996).

At the top of this open system framework is the "strategic logic", which refers to the firm's "operative rationale for achieving its goals through coordinated deployments of resources" (Sanchez & Heene, 1997b). Developing a "strategic logic" is a "cognitive" process that potentially involves the contribution of multiple actors within the

organization (Sanchez, 1997). In environments that are moderately complex and fairly stable, such a task may be addressed by the firm's top management team. However, in more complex and dynamic environments, it may require the integration and exploitation of the "collective intelligence" of the firm's employees and other participants involved in the value creation process (e.g., suppliers, customers) (Sanchez, 1997).

Thus, a central resource for achieving a competitive advantage is formed by "managerial cognitions" and knowledge management processes that support the development of a distinctive and workable strategic logic (Sanchez, 1997).

A further system element consists of management processes for obtaining, coordinating and using resources which includes activities such as analysing firm internal and external data, decision making, and the like (Priyono, Tejada, & Sanchez, 2010; Sanchez & Heene, 1997b).

The next two elements in the system are intangible resources like knowledge and tangible resources like production plants. These may be either firm-internal or firm external. Firm external resources are those that are "addressable" through resource markets or cooperative relationships with other market participants (Sanchez & Heene, 1996, 1997b).

Special emphasis is given to the possibilities of attaining competitive advantage through resource markets. The competence perspective suggests that resource providers (e.g., employees, alliance partners) have a vested interest in committing their resources to firms where they receive the highest possible value in return (Sanchez, 2004). For example, a major consulting firm may outcompete its smaller competitors for talented employees because it can provide a distinctive mix of benefits such as varied work with international clients, a career development path, and a good reputation. Firms, then, compete for these resources on the basis of their ability to create and deliver value to the resource providers (Sanchez, 2004).

The CBM considers the value generation and allocation process from a "stakeholder" perspective (e.g., Ackermann & Eden, 2011a; Sanchez & Heene, 2004). This means that managers need to adopt a "holistic" perspective to balance the diverse and evolving interests and goals of employees, shareholders, suppliers, customers, and others involved in the firm's value generation process (Sanchez, 1997).

A further element of the system is formed by operations – that is, all operational processes from ordering supplies to delivering after sales services. The CBM, however, emphasizes "product creation", "product realization", and "stakeholder development" as the most central processes in the firm's activity system (Sanchez, 2004). These operational processes result in the "product offering" that is then delivered to customers in the product markets (Sanchez & Heene, 1997b).

Feedback structures are a further aspect of this systemic model of the firm. Information flows upward from lower-level elements to inform the management process. In addition there are information flows (e.g., objectives, plans, rules) that flow in the opposite direction, from management processes to lower-level elements in the system (Sanchez & Heene, 1996).

What, then, is competence? It can be defined as the "ability to sustain the coordinated deployment of assets in a way that helps a firm achieve its goals" (Sanchez et al., 1996a, p. 8). Competences may be either built or leveraged. Competence *building* encompasses "any process by which a firm achieves qualitative changes in its existing stocks of assets and capabilities, including new abilities to coordinate and deploy new or existing assets and capabilities in ways that help the firm achieve its goals" (Sanchez et al., 1996a, p. 8). Competence *leveraging*, on the other hand, refers to the "applying of a firm's existing competences to current or new market opportunities in ways that do not require qualitative changes in the firm's assets or capabilities" (Sanchez et al., 1996a, p. 8).

In sum, then, the competence perspective suggests that senior managers and their cognitive abilities in devising a distinctive and workable strategic logic are a fundamental source of competitive advantage. Furthermore, the managerial skills and abilities required to implement an effective adaptive open system (i.e., enacting the strategic logic) appear also to be a potential source of competitive advantage. The diagram below provides an overview of the main competence-based concepts and their links to competitive advantage.

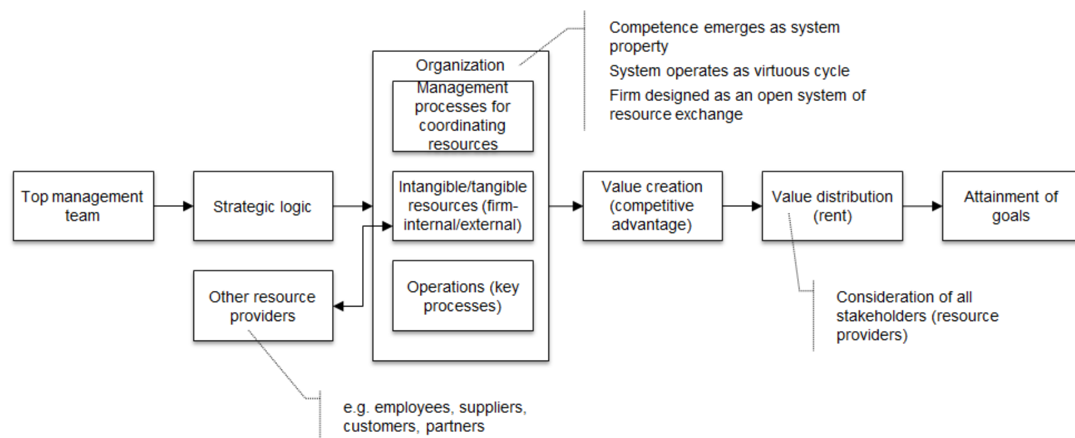

Figure 5: Basic competence-based perspective on competitive advantage

The competence-based view places a clear emphasis on all those variables of the firm that can be changed and managed rather than on static or non-manipulable variables. Ackermann and Eden (2011a) note that the central challenge for the firm in achieving competitive advantage is to create a product offering that provides a distinctive value to customers. If the value provided is difficult to match, a competitive advantage can be sustained. Although property-based assets may be important to competitive advantage, Ackermann and Eden emphasize that a considerably higher potential resides in the firm's specific abilities in coordinating resources and activities.

Ackermann and Eden (2011a; 2010) conceptually distinguish between goals, competence outcomes, competences, and assets. One modifier of these concepts is "distinctive", which denotes a relevant difference relative to most competitors. The second modifier is "core", which means that the competence outcome, competence, or asset is causally linked to at least one of the firm's central goals.

At the top of the hierarchy of the firm's competence system are the firm's *goals*, such as competitive advantage or a "low carbon footprint". These goals are supported by a *competence outcome* such as "brand reputation for innovativeness and exclusivity", "reliable product services", or "low cost production". These outcomes often relate to an important dimensions of customer value, and while they may be visible to customers and others, they may not reveal sufficient information about the underlying competences. The next level are *competences* that deliver the outcomes. Unlike competence outcomes, competences can be directly managed. Finally, assets are the more basic resources of the firm, such as patents and machines, that can be deployed through competences (Ackermann & Eden, 2011a).

The CBM view places a clear emphasis on distinctive competences, as these are the main "variables" that a firm can manage and use to attain its strategic goals. Ackermann and Eden (2011a, p. 178) note that although competences can be firm-specific, there is often some level of overlap between competing firms; they argue that much of the distinctiveness of competences arises at the group level of competences, that is, from "patterns, bundles or portfolios of relatively distinctive competences". They further contend that a distinctive competence can also emerge from a set of common competences that together build a "reinforcing feedback loop" (Ackermann & Eden, 2011a, p. 182).

In sum, then, distinctive competences are a direct source of competitive advantage. Distinctive competences, in turn, require the input of the firm's management team. Thus, it may be argued that distinctive managerial skills and abilities to identify, configure, use, and manage distinctive competences possibly represent a more fundamental source of competitive advantage. The figure below provides a conceptual representation of distinctive competences and competitive advantage.

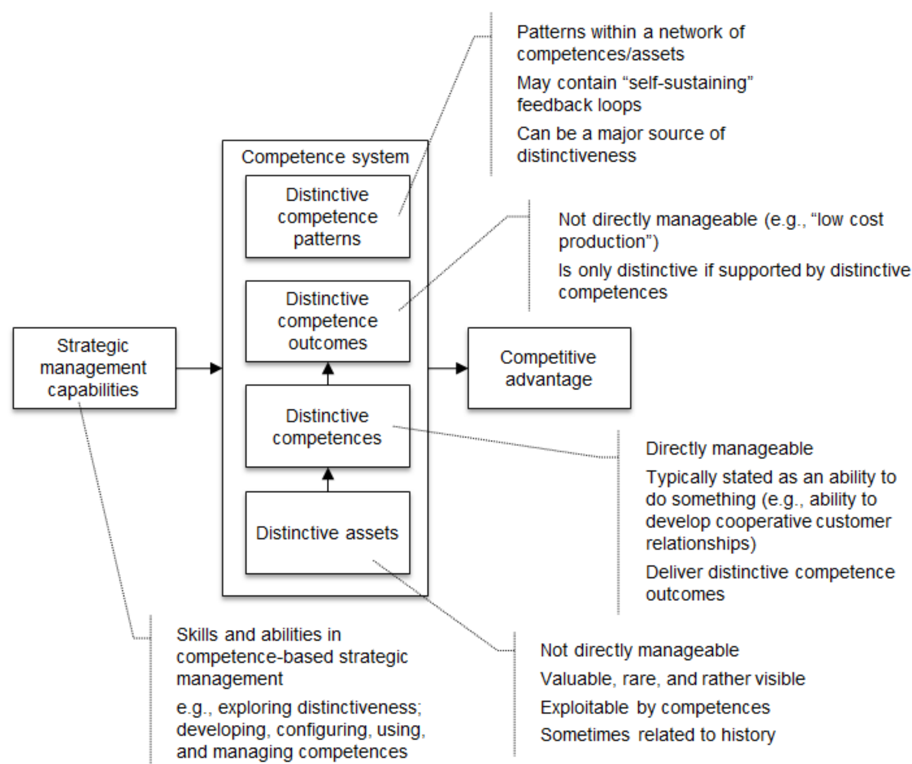

Figure 6: Strategic management capabilities, distinctive competences and competitive advantage (based on the work of Ackermann & Eden, 2011a; and Eden & Ackermann, 2010)

2.4 LIMITATIONS OF THE RESOURCE-BASED EXPLANATION

The preceding sections have explicated the resource-based theory of competitive advantage, reviewed the history of the RBV, and discussed the main resource-based perspectives on competitive advantage that have developed out of, or in parallel to, the traditional RBV. In the course of its development, the RBV literature has also been the target of criticisms that have engendered debates, clarifications, and theoretical refinements (Arend, 2003; Bromiley & Fleming, 2002; Brush & Artz, 1999; Fahy, 2000; Foss & Ishikawa, 2007; Foss, Klein, Kor, & Mahoney, 2008; Foss, Knudsen, & Montgomery, 1995; Foss, 1998; Hoopes et al., 2003; Johnson et al., 2003; Kraaijenbrink, Spender, & Groen, 2010; Levitas & Ndofor, 2006; Lippman & Rumelt, 2003; Lockett, Thompson, & Morgenstern, 2009; Montgomery, 1995; Mosakowski & McKelvey, 1997; Nanda, 1996; Porter, 1991; Powell, 2001; Priem & Butler, 2001a, 2001b; Rugman & Verbeke, 2002; Sanchez, 2008; Spender, 2006). In the following, I will highlight the main areas of criticism and confusion that limit our understanding of firm-level sources of competitive advantage.

2.4.1 CONCEPTS

A first area concerns definitional issues. It has been argued that some concepts in the RBV are elusive or ambiguous (Fahy, 2000; Kraaijenbrink et al., 2010; Nanda, 1996; Priem & Butler, 2001a; Ray & Ramakrishnan, 2006; Rugman & Verbeke, 2002). One of them is “resources”. Some scholars define resources in relatively broad terms, so that they comprise nearly everything that firms can buy, develop or use to create and implement their strategies (e.g., Barney & Arikan, 2001; Barney, 1991; Wernerfelt, 1984), while others define or conceive of resources as a special type of firm-level factor (e.g., Amit & Schoemaker, 1993; Makadok, 2001; Teece et al., 1997). Barney (2001a) argues that a broad definition is useful as it lends itself to a theory that encompasses most firm level factors rather than only a few. Priem and Butler (2001a), however, find such an all-encompassing definition problematic, because it makes the development of normative guidelines for executives difficult. In a similar vein, Kraaijenbrink et al. (2010) suggest that such a general definition is not very useful, because it does not adequately reflect that firm-level factors can fundamentally differ on functional, behavioural and other dimensions.

This definitional vagueness is also reflected in the RBV literature. Scholars use a wide spectrum of terms to refer to firm level factors, including resources, capabilities,

competences, assets, processes, routines, skills, capacities, factors of production, and capital. In addition, to describe the basic characteristics of firm-level factors, they employ a large collection of adjectives, including dynamic, accessible, controllable, owned, protectable, individual, social, organizational, institutional, operational, complementary, specialized, path-dependent, and meta-physical. Moreover, scholars use an even broader range of adjectives, often in combination, to distinguish between strategically relevant and strategically irrelevant firm-level factors; these include attractive, valuable, superior, core, idiosyncratic, productive, critical, durable, unique, rare, scarce, inelastic in supply, distinctive, imperfectly mobile, imperfectly tradable, imperfectly inimitable, imperfectly substitutable, invisible, intransparent, causally ambiguous, tacit, complex, intangible, and appropriable. To distinguish different types of capability-type firm level factors, scholars also use the substantive forms of all kinds of economic activity ranging from competence building and brand management to learning. Alongside these terms, scholars also use more conventional labels for firm-level factors, such as organizational structure, strategic flexibility, innovativeness, or market orientation. Finally, scholars have been anything but timid about inventing names for special types of firm-level factors; such names include "architectural competence" (Henderson & Cockburn, 1994), "absorptive capacity" (Cohen & Levinthal, 1990), and "strategic logic" (Sanchez & Heene, 1996).

The broad variety of concepts and definitions introduced in the literature indicates that firm-level factors can differ in their nature and characteristics and that these differences may be important for the analysis of competitive advantage and superior firm performance. However, this conceptual plethora also has downsides. It increases, for example, the overall complexity of the literature. It also adds, ironically, to its overall ambiguity, since the linkages between these various concepts may be opaque and difficult to discern. Finally, it also complicates efforts to consolidate and compare the findings of empirical studies.

2.4.2 STRUCTURE

A second area of critique concerns the logical structure of the theory. Some argue that the theory is tautological (Priem & Butler, 2001a, 2001b) or circular (Porter, 1991). One condition that an organizational theory must pass to be considered scientifically sound is the capacity to be disproved, which in turn presumes that its underlying theoretical constructs are, from a definitional point of view, mutually exclusive (McKelvey, 1997). It is argued that the resource-based theory – at least in the original form advanced by

Barney (1991) – lacks this quality, since the definition of the independent construct (i.e., valuable and rare resources) and the definition of the dependent construct (i.e., competitive advantage or firm performance) overlap (Priem & Butler, 2001a, 2001b). Priem and Butler (2001a) convincingly demonstrate this by replacing the elements of Barney's original theory (Barney, 1991) with corresponding definitions to support their argument. Barney (2001a), however, contends that the outcomes of such rephrasing exercises cannot be taken as a proof that a theory is structurally flawed. What matters more, he argues, is that the resource-based theory is interpreted and operationalized in a non-tautological manner, which he believes is clearly feasible, as numerous empirical RBV studies have shown.

There have also been other attempts to solve the tautology issue that rely less on the skills of individual researchers to appropriately operationalize the theory. Peteraf and Barney (2003), for example, provide more distinctive definitions for strategically "valuable resources", "competitive advantage", and related terms such as "economic value". Another promising effort comes from Bowman and Ambrosini (2001, 2010), who offer a set of alternative definitions for the "value" of resources. Despite these clarification efforts, a widely accepted definition of resource value with the power to satisfactorily address the tautology issue (i.e., one that is semantically distinct from the concept of "economic value" used in the definition of competitive advantage) has not yet been formulated (Kraaijenbrink et al., 2010).

2.4.3 IDENTIFICATION AND MEASUREMENT

Another area of concern is the identification and measurement of strategically relevant firm resources. Such resources may be intangible, complex, causally ambiguous, and possess tacit or otherwise difficult-to-observe dimensions; consequently, they are difficult to discover and specify (Aharoni, 1993; Godfrey & Hill, 1995). Another difficulty lies in determining in what ways and to what extent individual resources effectively contribute to competitive advantage and firm performance (Lockett et al., 2009; Poppo & Weigelt, 2000).

A further issue that complicates the identification of strategically valuable resources is "infinite regress" (Collis, 1994). For, example, a capability identified as being of high strategic value is, strictly speaking, the product of another capability higher up in the hierarchy, which in turn is the product of a capability even higher up in the hierarchy,

and so on and so forth. Since the number of levels is virtually unlimited, it may be difficult to ascertain the most appropriate level of analysis (Arend, 2006).

The difficulty of identifying strategic resources also complicates the testing of resource-based propositions. Sanchez (2008), for example, argues that the resource-based theory cannot be tested by the canons of science, because this would presume, among other things, that strategically valuable resources are fully specified ex ante, which he believes is impossible.

2.4.4 EMPIRICAL EVIDENCE

A further area of critique concerns the empirical evidence for resource-based contentions. Arend (2006), examining a sample of 60 much cited empirical RBV studies, argues that

> there are no satisfactory empirical tests of the RBV. No paper or collection of related papers measures the benefits specified by RBV theory; adjusts for the costs of the resources; provides evidence that resources meet the RBV criteria; and controls for the influence of higher-level resources. (p. 409)

Other scholars arrive at more positive conclusions in their assessments of empirical work. For example, Barney and Arikan (2001), reviewing 166 resource-based studies conducted in the field of strategic management and other management disciplines, find that these studies provide broad support of the basic premises of the resource-based theory, or at least do not provide contradicting evidence. In a more recent study, Nothnagel (2008) assesses 192 empirical RBV studies and finds that the central hypotheses of the resource-based view are well supported. However, the examination by Newbert (2007) of 55 resource-based studies finds only moderate support for the basic premises of the resource-based theory. Lockett et al. (2009) note that the overall impression regarding the support for the resource-based view may be too optimistic: studies that report neutral, unspectacular, or even disconfirming results may be underrepresented since they are generally harder to get published than those that report confirming results.

The above-mentioned studies are valuable in that they test important elements of the resource-based theory. However, there are relatively few empirical studies that explore the question of which resources in effect account for performance differences among firms (Galbreath & Galvin, 2008). There are, though, a number of studies attempting to decompose performance differences into more generic classes of effects, such as

industry effects, firm effects, or strategic group effects (Brush, Bromiley, & Hendrickx, 1999; Chang & Singh, 2000; Claver, Molina, & Tarí, 2002; Galbreath & Galvin, 2008; Hansen & Wernerfelt, 1989; Hawawini et al., 2003; Kessides, 1990; Mauri & Michaels, 1998; McGahan & Porter, 1997; Misangyi, Elms, Greckhamer, & Lepine, 2006; Powell, 1996; Roquebert, Phillips, & Westfall, 1996; Ruefli & Wiggins, 2003; Rumelt, 1991; Schmalensee, 1985; Wernerfelt & Montgomery, 1988). These studies indicate that less than 20 per cent of the performance variation is attributable to industry-level factors, suggesting that potentially up to 80 per cent of the variation may be directly or indirectly related to heterogeneous firm resources. What these resource differences effectively are, however, is only partially understood. This is also reflected, for example, in Lippman and Rumelt's (2003, p. 1083) call to examine "resource advantage" in more detail; they note that "it would be useful to have a better understanding of the properties of certain classes of resources. Whereas it is easy to classify intangibles such as brand image and know-how as resources, the properties of such resources are less well established."

2.5 CHAPTER CONCLUSION

The purpose of this chapter has been to review the RBV, which arguably provides the most commonly accepted explanation of differential firm performance that has emerged in the last three decades in the field of strategic management. The chapter commenced with a review of the theoretical and intellectual antecedents of the RBV and subsequently elaborated on the resource-based theory of competitive advantage, highlighting key assumptions, concepts, and propositions. The RBV takes as its starting point two central assumptions – resource heterogeneity and imperfect resource mobility – to explain competitive advantage and firm performance. The view suggests that firm resources can confer a competitive advantage if they are concurrently valuable, rare, imperfectly imitable, not substitutable, and organizationally embedded (VRIN/O conditions).

The second part of the literature review concentrated on the different resource-based perspectives that developed out of or in parallel to the RBV, including the DCV (dynamic capability view), KBV (knowledge based view), the CCP (core competence perspective), and the CBM (competence-based management perspective).

The DCV contends that achieving and maintaining a competitive advantage in dynamic environments requires dynamic capabilities (i.e., sensing of opportunities, sizing of opportunities, and the reconfiguration/transformation of the resource base). From a functional point of view, these dynamic capabilities may be similar among competing

firms, and thus less likely to confer competitive advantage. However, the DCV suggests that managerial processes to develop, maintain, and deploy dynamic capabilities may be less homogeneously distributed among competing firms, and hence provide a competitive advantage. The DCV is largely seen as a complement to the traditional RBV.

The KBV, in contrast, focuses attention on knowledge, which is considered the most essential class of firm resources for the creation of economic value. Knowledge may take various forms, may reside at different levels within the organization (individual, group, organization, network), and may be classified along various dimensions (e.g., "tacitness"). Knowledge that possesses a tacit dimension is most closely associated with competitive advantage, because tacitness poses a formidable imitation barrier against competing firms. The KBV also suggests that superior knowledge-related capabilities (e.g., sourcing, creation, integration, protection, and disintegration) may be potential sources of competitive advantage. The KBV is largely consistent with the tenets of the RBV and as such may be considered as an extension to the RBV.

The CCP suggests that core competences are at the heart of competitiveness and superior firm performance. Core competences are combinations of complementary skills and knowledge sets embedded in groups of individuals. They enable the firm to perform selected processes within the organization better than most rivalling firms; positively impact customer benefits or operational efficiency; offer growth opportunities in diverse product markets; are difficult to imitate; and are distinct from the competences possessed by rivalling firms. The core competence literature also indicates that a more fundamental source of competitive advantage for the firm rests in its capabilities to conceive, develop, share, and utilize distinctive and difficult-to-imitate core competences. The CCP is valuable because it elucidates important firm-level competences and capabilities that are relevant in the value creation process of large and diversified firms. The CCP is not inconsistent with the basic tenets of the RBV and thus might be considered an extension of it.

Finally, the CBM contends that the firm is an adaptive, open system consisting of a strategic logic, management processes, intangible/tangible resources, operations, and product offerings, and interfaces to markets for resources and markets for products. The purpose of the organization is to attain organizational goals, which may include, in the case of financially oriented firms, the achievement and maintenance of competitive advantage. The CBM literature suggests that there are two main sources of competitive

advantage. One consists of senior managers and their cognitive abilities to devise a distinctive and workable strategic logic. Another is composed of managerial skills and abilities in implementing an effective adaptive open system (i.e., enacting the strategic logic). Research also indicates that distinctive competences (in various areas) are potential sources of competitive advantage. Another potential source consists of the distinctive managerial skills and abilities in identifying, configuring, using, and managing distinctive competences. Finally, a competitive advantage may also arise from networks of interrelated distinctive competences that are difficult observe and understand. The CBM combines static and dynamic concepts, places an emphasis on operational validity, and seeks to integrate a variety of theories and perspectives – including the RBV, KBV, DCV, and the CCP – into a larger framework for strategic management. The CBM may be considered an extension of the basic theory of competitive advantage advanced by the RBV. In addition, CBM research provides valuable insights into potential sources of competitive advantage by focusing on particular classes of firm-level differences (e.g. strategic logic, managerial capabilities, distinctive competences, or competence networks).

The penultimate section reviewed main areas of criticism and confusion that limit our understanding of firm-level sources of competitive advantage. These include conceptual ambiguity, tautological structure, difficulties in identifying and measuring strategic valuable resources, and limited empirical research effectively identifying the resources that account for competitive advantage and performance variation.

The next chapter presents the conceptual framework that will be used in this study to explore the resources most closely associated with competitive advantage.

3 CONCEPTUAL FRAMEWORK

3.1 CHAPTER INTRODUCTION

The purpose of this chapter is to develop a conceptual representation of the phenomenon under study. A conceptual framework is a key element of the research design that "explains, either graphically or in a narrative form, the main things to be studied – the key factors, concepts, or variables – and the assumed relationship among them" (Miles & Huberman, 1994, p. 18). It is a "tentative theory of the phenomena" that the research seeks to explore – which may also include implicit and explicit assumptions, beliefs and thoughts that researcher holds about the research subject (Maxwell, 2005, p. 33). The theory represented in the conceptual framework has two main functions: First, it guides the design of the research and aids in making design-related decisions in a consistent way, and second, it helps to refine the research problem and to clarify the nature of information needed to address identified issues (Maxwell, 2005).

There are, of course, several potential sources from which to derive a conceptual framework (Maxwell, 2005). In this study, the main sources for the framework will be resource-based theory and resource-based studies in the field of strategic management. As explained in Chapter 2, the field of strategic management offers two broad explanations as to why some firms attain consistently higher performance levels than others do. The first is market-based; that theory stems from the industrial organization (IO) economics tradition and relies on industry structure factors and the relative market position of the firm to explain performance differences among firms (Porter, 1980, 1985). The second is resource-based and stems from a research tradition called resource-based view of the firm (RBV) and concentrates on firm-level factors to explain performance differences among firms (e.g., Barney, 1991; Dierickx & Cool, 1989; Peteraf, 1993; Rumelt, 1984; Wernerfelt, 1984). The studies that have been performed on each indicate that only about 20% of the variation is attributable to industry structure factors – which means that potentially 80% of the performance variance could be associated with firm level differences. That, naturally, makes the RBV tradition worth considering further, particularly as we still possess only a limited understanding of which particular firm resources contribute to superior firm performance.

The chapter commences by examining the assumptions related to the conceptual framework. The following sections discuss the key concepts related to the phenomenon of superior firm performance, including firm resources, firm performance (competitive advantage, and rents) and strategic factor markets. The ensuing section introduces then the proposed conceptual framework for the study. The final section concludes the chapter.

3.2 ASSUMPTIONS

The RBV rests on a number of assumptions. Like other theories in strategic management, the RBV adopts the assumption that firms are inherently motivated to attain the highest possible economic returns, which means that firms will continue to produce goods and services until "marginal costs equal marginal revenues" (see Barney & Arikan, 2001, p. 127). A second common assumption is that managers are not perfectly rational in pursuing the goals of the firm; they are subject to "bounded rationality" (Barney & Arikan, 2001; Teece et al., 1997). This means that managers, like everyone else, are subject to cognitive biases and limitations in processing information and making decisions (Simon, 1976). Cognitive biases that affect strategic decision making include, for example, "prior hypothesis bias", "escalating commitment", "reasoning by analogy", "representativeness bias", and the "illusion of control bias" (Hill & Jones, 2010, pp. 28–29). One important implication of the bounded rationality assumption is, then, that the strategies a firm uses to acquire, develop and deploy resources to attain a competitive advantage are less than perfect. This assumption, however, does not necessarily imply that all managers among a set of competing firms exhibit identical levels of bounded rationality.

There are two further assumptions that are defining features of the RBV: *resource heterogeneity* and *resource immobility* (Barney & Arikan, 2001; Foss et al., 1995; Peteraf, 1993). Resource heterogeneity suggests that competing firms may differ in their resource endowments (Barney, 1986b, 1991; Penrose, 1959). Barney (1991) argues that in a scenario where competing firms have identical resource endowments, a firm cannot expect to gain above normal returns from implementing a specific strategy, since competing firms could easily follow suit. In such a scenario, a particular firm would not even be able to attain a first-mover advantage, since a strategy that exploits a business opportunity earlier than other competing firms would presume a distinctive resource not available to other firms, namely the entrepreneurial mindset to perceive the business

opportunity (Barney, 1991). It follows that competitive advantage can only evolve when resources are heterogeneously distributed among competing firms.

The RBV literature suggests that resource heterogeneity arises from two main sources. One is formed by idiosyncratic resource development processes, i.e. processes that can be firm-specific or path-dependent (Amit & Schoemaker, 1993; Barney, 1986b; Black & Boal, 1994; Collis, 1991; Dierickx & Cool, 1989; Teece et al., 1997). A second source consists of the imperfections in the resource markets in which firms acquire, share or exchange firm resources (Barney, 1986b; cf. Dierickx & Cool, 1989)

Resource markets may be imperfect for a number of reasons. Firms may, for example, possess dissimilar information, which then leads to different perceptions of a resource's prospective value; this in turn leads to different resource decisions and ultimately to resource heterogeneity (Barney, 1986b). A second type of imperfection is that some resources (particularly intangible ones like firm culture) are difficult to trade or transfer through markets (Dierickx & Cool, 1989; Grant, 1991; Peteraf, 1993; Teece et al., 1997). Some resources may thus not be obtained in resource markets; rather, they need to be developed by the firm over time (Dierickx & Cool, 1989).

Resource immobility suggests that the resource endowments of competing firms may remain different over time (Barney & Arikan, 2001; Barney, 1991; Peteraf, 1993; Rumelt, 1987). Barney (1991) argues that in a scenario where firm resources are highly mobile, any firm strategy that creates exceptional value could be quickly replicated by competing or new entering firms, since the relevant resources for that strategy can be obtained in corresponding resource markets. In such a scenario, firms cannot expect a competitive advantage. It follows that resources need to be either immobile or imperfectly mobile to confer a competitive advantage.

Peteraf (1993) suggests that resources can be imperfectly mobile (i.e., imperfectly tradable or imperfectly transferable) due to a number of resource and exchange characteristics, including missing or inadequate property rights (cf. Dierickx & Cool, 1989); firm-specificity with no or limited use outside the firm (cf. Williamson, 1979); difficult to recover development costs (cf. Montgomery & Wernerfelt, 1988; Peteraf, 1993); productivity loss if disconnected from complementary or specialized firm resources (cf. Teece, 1986a); and transfer-related costs (cf. Rumelt, 1987).

These two assumptions suggest that firm resources may be heterogeneously distributed among a set of competing firms and that resource differences may persist for a long time (Barney & Arikan, 2001).

3.3 FIRM RESOURCES

3.3.1 DEFINITIONS

During the course of the development of the RBV, authors have developed a variety of terms and definitions of the firm-level factors involved in the creation of economic value. Wernerfelt (1984), Barney, (1991), Peteraf (1993), Rumelt (1984) and others call these firm-level factors simply resources, while others have introduced their own terms and definitions (see Table 1).

Table 1: Terms and selected definitions for firm-level factors involved in the creation of economic value

Term	Definition
Resources	"… anything which could be thought of as a strength or weakness of a given firm"; "… tangible and intangible assets which are tied semipermanently to the firm …" (Wernerfelt, 1984, p. 172).
	"… all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness" (Barney, 1991, p. 101).
	"… inputs into the production process … on their own, few resources are productive." (Grant, 1991, pp. 118–119)
	"… financial, physical, human, technological, and organizational assets of the firm." (Hill & Jones, 1992, p. 103)
	"… stocks of available factors that are owned or controlled by the firm." (Amit & Schoemaker, 1993, p. 35)
	"… strategically relevant financial, physical, individual, and organizational attributes." (Barney, 1997, p. 144)
	"… firm-specific assets that are difficult if not impossible to imitate." (Teece et al., 1997, p. 516)
	"… a firm's stock of tangible and intangible assets …" (Lieberman & Montgomery, 1998, p. 112)
	"… tangible and intangible assets a firm uses to choose and implement its strategies." (Barney, 2001a, p. 54)
	"… tangible and intangible assets firms use to conceive of and implement their strategies." (Barney & Arikan, 2001, p. 138)
	"… asset[s] or input[s] to production (tangible or intangible) that an organization owns, controls, or has access to on a semi-permanent basis." (Helfat & Peteraf, 2003, p. 999)

	"… the tangible and intangible assets that a firm controls that it can use to conceive of and implement its strategies." (Barney & Hesterly, 2008, p. 74)
Capabilities	"A capability is the capacity for a team of resources to perform some task or activity…involve[s] complex patterns of coordination between people and between people and other resources … is, in essence, a routine, or a number of interacting routines" (Grant, 1991, pp. 119, 122)
	"… a firm's capacity to deploy resources, usually in combination, using organizational processes, to effect a desired end." (Amit & Schoemaker, 1993, p. 35)
	"… socially complex routines that determine the efficiency with which firms physically transform inputs into outputs." (Collis, 1994, p. 145)
	"… a company's skills at coordinating its resources and putting them to productive use. These skills reside in an organization's routines – that is, in the way a company makes decisions and manages its internal processes to achieve organizational objectives. More generally, a company's capabilities are the product of its organizational structure and control systems … capabilities are, by definition, intangible. They reside not so much in individuals as in the way individuals interact, cooperate, and make decisions within the context of an organization." (Hill & Jones, 1992, pp. 103–104)
	"… the organization's collective capacity for undertaking a specific type of activity" (Lieberman & Montgomery, 1998, p. 112)
	"… a special type of resource – specifically, an organizationally embedded nontransferable firm-specific resource whose purpose is to improve the productivity of the other resources possessed by the firm." (Makadok, 2001, p. 389)
	"…the [abilities] of an organization to perform … coordinated set[s] of tasks, utilizing organizational resources, for the purpose of achieving … particular end result[s]." (Helfat & Peteraf, 2003, p. 999)
Dynamic capabilities	"… the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments." (Teece et al., 1997, p. 516)
Distinctive competences	What the firm does particularly well compared to competing firms; reflects a firm's "peculiar adaptation to its own special purposes and programs" (Selznick, 1957, p. 50)
	A distinctive competence is "what [the organization] can do particularly well." (Andrews, 1971, p. 97)
	"… aggregate of numerous specific activities that the organization tends to perform better than other organizations within a similar environment." (Snow & Hrebiniak, 1980, p. 317)
	"… company strengths that competitors cannot easily match or imitate." (Hill & Jones, 1992, p. 102)
Core competences	"… the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies." (Prahalad & Hamel, 1990, p. 82)

	"… those competences that define a firm's fundamental business as core … derived by looking across the range of a firm's (and its competitors) products and services." (Teece et al., 1997, p. 516)
Strategic assets	"Critical or strategic asset stocks are those assets which are nontradeable, and … nonimitable and nonsubstitutable." (Dierickx & Cool, 1989, p. 1507)
	"… the set of difficult to trade and imitate, scarce, appropriable and specialized resources and capabilities that bestow the firm's competitive advantage." (Amit & Schoemaker, 1993, p. 36)

These definitions differ from each other in at least three different dimensions. A first dimension is the level of abstraction. Some scholars suggest that 'resources' are an all-encompassing term for all sorts of production factors, while others distinguish between different types of factors, including resources, capabilities, assets, and competences. Barney and Arikan (2001), for example, argue that 'resource' can be used as a top-level term for all production factors. They suggest that a finer categorization of production factors may provide useful insights for understanding the value creation capacity of firms, but argue that developing theories of competitive advantage for individual categories is not very useful. Other scholars (Amit & Schoemaker, 1993; Grant, 1991; Hill & Jones, 1992) point out that a distinction should be made between resources and capabilities in order to understand how value is created within firms. Still others (e.g., Ackermann & Eden, 2011a) differentiate between assets and competences on the grounds that these resources are different in terms of function and structure, and that they are hierarchically ordered. Finally, Sanchez (2004, p. 37) suggests that competences are not identifiable resources that a firm can actually possess, but rather form a "system property" that emerges when resources and capabilities are managed and deployed in ways that create economic value.

A second dimension is ownership. At one end of the continuum are fully owned production factors while at the other end are factors that are only loosely coupled with the firm. In essence, this dimension defines the scope of the firm. Some scholars regard only those production factors that are fully owned or controllable as firm resources (Amit & Schoemaker, 1993; Priem & Butler, 2001a; Teece et al., 1997). Others apply a broader definition and include all available production factors that a firm potentially can use for its strategies (Sanchez & Heene, 2004; Wernerfelt, 1984). Coff (1999), for example, suggests that resources are not owned by the firm, they are only linked to the firm through implicit formal or non-formal agreements with resource providers,

including managers, employees, suppliers, customers, and alliance partners. Hence, the knowledge possessed by employees, for example, is only coordinated and used by the firm, not owned by it. However, there may also be some resources such as firm history, culture, structure, or operational routines that cannot be clearly attributed to individual resource providers.

A third dimension concerns outcomes. Some scholars define resources in terms of positive outcomes, while others accept both negative and positive outcomes. The definition by Barney (1991), for example, suggests that production factors must have a positive effect on perceived customer value, on economic cost, or on both, to be considered resources. Defining resources as positive outcomes raises the problem of tautology (Peteraf & Barney, 2003; Priem & Butler, 2001a, 2001b). A less problematic definition is provided, for example, by Wernerfelt (1984), who suggests that all production factors, whether they lead to positive outcomes or not, are resources.

For the purposes of this study, I define resources along these three dimensions: Firm resources encompass all factors that can be used to develop and implement strategies as well as all other factors that are contractually linked to the firm. This definition includes not only productive but also unproductive resources, and even resources that are primarily a legacy of previous practice and may be difficult to change even if they have come to be a burden rather than an asset. I do not exclude certain classes of resources from the analysis, since all of them may potentially contribute to competitive advantage. I use the term resource, then, as an umbrella term. I acknowledge, however, that there are differences between resource types and that those differences can be important to understanding the causes of competitive advantage. In this dissertation, I consider capabilities, competences and assets special types of resources. These terms may be used in parallel or interchangeably with the term resource.

3.3.2 Overview of basic resource categories

The literature suggests a broad array of resources that firms acquire, develop, and use to implement their strategies. Scholars have proposed a number of schemes to classify these resources (Barney & Hesterly, 2008; Barney, 1991; Black & Boal, 1994; Chatterjee & Wernerfelt, 1991; Collis & Montgomery, 1995; Grant, 1991; Hofer & Schendel, 1978; Nanda, 1996). These classification schemes differ in their level of abstraction and completeness. In a study of firm-level effects on firm performance, Galbreath (2004) used a relatively comprehensive resource classification scheme that can be modified for

use in exploratory cross-sectional case studies. Following Galbreath (2004), I divide resources into six broad classes, each with a set of subclasses (Figure 7). These resource classes serve as a framework for identifying and exploring potential sources of competitive advantage in a semi-structured way.

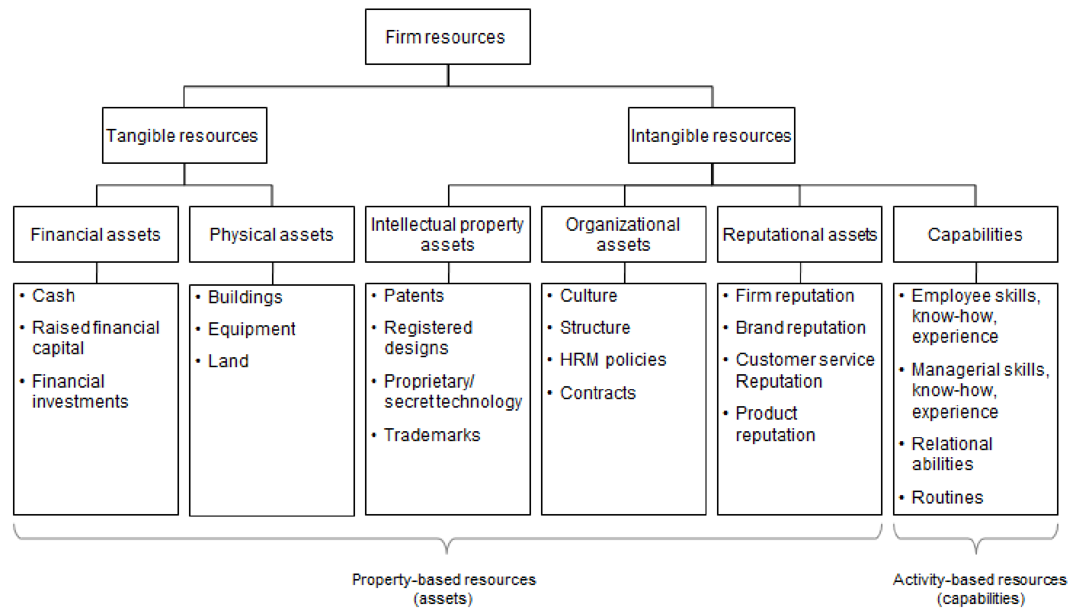

Figure 7: Basic classification of firm resources (based on Galbreath, 2004, pp. 106–117)

On a fundamental level, a distinction can be made between tangible and intangible resources (Barney & Hesterly, 2008; Fahy, 2000; Galbreath & Galvin, 2004; Hill & Jones, 1992; Hitt, Ireland, & Hoskisson, 1997; Nanda, 1996). *Tangible resources* include those resources that are physical or monetary in nature, are observable, have a market value, and can be recorded on the firm's balance sheet (Epstein & Mirza, 2005). According to Galbreath (2004, pp. 107–108), tangible resources can be further divided into “financial assets” and “physical assets”. *Intangible resources*, in contrast, include resources that are nonphysical and nonmonetary in nature, difficult to observe, and have (with some exceptions) no recorded value on the firm’s balance sheet (Epstein & Mirza, 2005). In addition, intangible resources may be categorized as assets or capabilities: assets are property-based in nature, while capabilities are activity-based in nature (Hall, 1992, 1993). Intangible resources can then be categorized into “intellectual property assets”, “organizational assets”, “reputational assets”, and “capabilities” (Galbreath, 2004, pp. 108–116).

In general, it is argued that intangible resources are more important in explaining competitive advantage since they can be a) firm specific (and thus heterogeneous among

firms); and b) imperfectly mobile (i.e., possessing a tacit dimension or other attributes that them make difficult to trade or transfer) (e.g., Hall, 1992; Michalisin et al., 1997). This argument is further supported by the fact that many intangible resources provide economies of scope: they can become more valuable with use (e.g., routines, know-how of managers and employees), or be concurrently used across the organization in a variety of situations (e.g., corporate reputation may be used to market products or to recruit employees), or both (Itami & Roehl, 1987). In what follows, these resource categories are explained in more detail.

3.3.3 FINANCIAL ASSETS

Financial assets include "cash", "raised financial capital", and "financial investments" (Galbreath, 2004, p. 107). While these assets may represent for some firms only a subset of financial assets, they are considered important indicators of a firm's financial soundness and general ability to raise capital to operate the business (Boulton, Libert, & Samek, 2000). Although financial assets are critical for any form of business, my expectation – in the light of more or less efficient capital markets – is that the potential of these assets to generate superior returns is rather limited. However, this does not imply that they are not important in implementing strategies that exploit other resource advantages of the firm. This study adopts the following working definitions of financial assets.

Cash is the capital held as currency positions; it is augmented by earnings from operational activities and other financial transactions (Boulton et al., 2000; Epstein & Mirza, 2005; Hill & Jones, 1992; Vause, 2005).

Raised financial capital represents the funds obtained from financial markets in the form of debt (issued notes or bonds, bank loans) and equity (issued shares of stocks) (Boulton et al., 2000; Brealey & Myers, 1996; Copeland, Koller, & Murrin, 2000; Galbreath, 2004; Vause, 2005).

Finally, *financial investments* refer to debt and equity investments such as public sector securities, mutual funds, property securities, and company bonds and shares (Boulton et al., 2000; Epstein & Mirza, 2005; Vause, 2005).

3.3.4 PHYSICAL ASSETS

Physical assets include *buildings*, *equipment* and *land* (Boulton et al., 2000; Hofer & Schendel, 1978). These assets have material substance and can be perceived and

measured; together with other visible firm resources, they shape the firm's physical appearance (Boulton et al., 2000). For the purposes of this study, the following working definitions will be used.

Buildings are solid constructions, such as offices, plants, and facilities for the production and delivery of products, supply of services, administration, and other operational activities (Boulton et al., 2000; Epstein & Mirza, 2005; Hofer & Schendel, 1978; Vause, 2005).

Equipment encompasses machines and other technical items to perform operational activities (Boulton et al., 2000; Schroeder, Bates, & Junttila, 2002; Vause, 2005).

Finally, *land* refers to a fraction of the earth's surface at a particular location held for productive, strategic or speculative purposes (Barney & Arikan, 2001; Boulton et al., 2000; Vause, 2005).

3.3.5 INTELLECTUAL PROPERTY ASSETS

Intellectual property assets are non-physical, information-based assets that have some potential to bestow benefits to the firm in the future (Standfield, 2002). They result from a firm's research and development activities and other knowledge-generating activities, and are also generated as a by-product of the firm's day-to-day operational activities (Itami & Roehl, 1987). This asset category includes intellectual assets of two types, those with explicit property rights, such as "trademarks", "patents", "copyrights", and "registered designs", and those without explicit property rights, such as proprietary knowledge/information (Brooking, 1997, pp. 36–41; Galbreath, 2004, pp. 110–11; Liebeskind, 1996; Teece, 1998). For the purposes of this study, the following working definitions are adopted.

Trademarks are legal protections for officially registered brands; they grant the owner the exclusive right, in a given geographical market, to distinguish the firm's products and services from those of competing firms by a particular name, symbol, or other audio-visual sign (Brooking, 1997; Hall, 1992; Hodkinson, 1987; Landes & Posner, 1987; Liebeskind, 1996; Reitzig, 2004; Swiss Federal Institute of Intellectual Property (IPI), 2004).

Patents represent legal protections for new, industrially applicable inventions (i.e., a technology to solve a technical problem) for a limited time and territory; they grant the owner the power to prevent other organizations and individuals from using or otherwise

exploiting the patent owner's inventions without prior consent of the patent owner (Aaker, 1989; Bloom & Van Reenen, 2002; Brooking, 1997; Hodkinson, 1987; Lev, 2001; Liebeskind, 1996; Swiss Federal Institute of Intellectual Property (IPI), 2004; Teece, 1986a).

Copyrights represent legal protections for software, literature, music, films, photos, paintings, drawings, maps, technical plans, architecture, and other creative work; they grant the creator or the copyright proprietor the right to prevent other organizations and individuals from replicating, circulating, disclosing, reciting, presenting or modifying their work without permission (Brooking, 1997; Hall, 1992; Hodkinson, 1987; Hurmelinna, Kyläheiko, & Jauhiainen, 2007; Liebeskind, 1996; Swiss Federal Institute of Intellectual Property (IPI), 2004; Teece, 1986a). However, the protection covers only the tangible dimensions of creative work, not its underpinning thoughts or conceptualizations (Swiss Federal Institute of Intellectual Property (IPI), 2004).

Registered designs represent legal protections of a product's distinctive visual image induced by its style, shape, material, surface and colour; they grant the owner the right to prevent others from using a similar design in a given territory (Brooking, 1997; Hall, 1992; Hodkinson, 1987; Rindova & Petkova, 2007; Swiss Federal Institute of Intellectual Property (IPI), 2004).

Proprietary technology/information refer to unique, undisclosed technological know-how and other confidential information generated through learning processes and specific research and development efforts that can be exclusively applied to products, services, or operational processes; asset value may be preserved through secrecy and other instruments to control information diffusion (Brooking, 1997; Gilbert & Birnbaum-More, 1996; Hall, 1992, 1993; Hill & Jones, 1992; Itami & Roehl, 1987; Liebeskind, 1996; Marcus & Geffen, 1998; Mata, Fuerst, & Barney, 1995; Porter, 1980; Schroeder, 1990).

3.3.6 ORGANIZATIONAL ASSETS

Organizational assets cover a wide range of firm assets, including characteristics of employee groups, systems to organize and control firm activities, working relationships within the firm, (formal) relationships with market participants, and systems and practices to develop and maintain a highly productive workforce (Barney, 1991; Hofer & Schendel, 1978; Tomer, 1987). Important organizational assets encompass a firm's "structure", "culture", "human resource management policies and practices", and

"contracts" (Galbreath, 2004, p. 112). For the purposes of this study, the following working definitions are adopted.

Organizational structure refers to the firm's implemented coordination and reporting design (Barney, 1991; Boulton et al., 2000; Hofer & Schendel, 1978). It breaks up the firm into logical, manageable organizational units, such as business divisions, functions, teams, and jobs, and defines organizational units in terms of roles, responsibilities, interrelationships, and modes of communication (Barney, 1997; Chandler, 1962).

Culture is an array of implicit, collectively shared assumptions, beliefs, and values that govern the firm's cognitive and behavioural processes (Alvesson, 2002; Barney, 1986a; Camerer & Vepsalainen, 1988; Deal & Kennedy, 1982; Fiol, 1991; Hall, 1992, 1993; Hofstede & Hofstede, 2005; Itami & Roehl, 1987; Kotter & Heskett, 1992; Martin, 2002; Schein, 1985).

Human resource management policies and practices encompass the principles, policies, programs, procedures and practices a firm uses to develop and manage its human capital in accordance with its mission and goals; this includes the recruitment, selection, training, development, involvement, appraisal, promotion, and compensation of individuals (Barney & Wright, 1998; Becker & Huselid, 1998; Colbert, 2004; Delery & Shaw, 2001; Huselid, 1995; Lado & Wilson, 1994; Schuler & MacMillan, 1984; Wright, McMahan, & McWilliams, 1994; Wright & McMahan, 1992).

Contracts are legally enforceable agreements between two or more exchange partners that delineate each partner's rights and obligations (Hall, 1992); they include joint ventures, R&D agreements, licensing agreements, franchising agreements, distribution agreements, alliance agreements, technology swap agreements, sourcing agreements and a number of other agreements with customers, suppliers and other market participants (Aaker & Mascarenhas, 1984; Brooking, 1997; Das & Teng, 2000a; Day, 2000; Dyer & Singh, 1998; Gulati, 1995; Hall, 1992; Lavie, 2006; Teece, 1986a; Valentin, 2001).

3.3.7 REPUTATIONAL ASSETS

Reputational assets include, broadly conceived, all the perceptions that a firm's internal and external constituencies hold about the firm and its products and services (Fombrun & Shanley, 1990; Hall, 1992; Itami & Roehl, 1987; Michalisin et al., 1997). According to Galbreath (2004, pp. 113–114), reputational assets can be divided into firm reputation,

brand reputation, "product/service reputation", and "customer service reputation". For the purposes of this study, the following working definitions are employed.

Firm reputation refers to actual, relatively stable perceptions that internal and external stakeholders possess of the firm's past behaviour, accomplishments, status, future outlook and other organizational attributes relative to competitors or standards; the reputational dimension includes operational and financial performance, market performance, corporate governance, culture, trustworthiness, credibility, reliability, responsibility towards the environment and society, and quality of product and service (Dowling, 2001; Fombrun & Shanley, 1990; Fombrun, 1996, 2001; Hall, 1993; Itami & Roehl, 1987; Michalisin et al., 1997; Rindova, Williamson, Petkova, & Sever, 2005; Roberts & Dowling, 2002; Weigelt & Camerer, 1988).

Brand reputation is a cognitive representation of a brand in the minds of customers and other constituents of the firm; a brand helps to make a product offering more distinctive and can provide a number of valuable functions to customers and the firm (Aaker, 1991; Argenti & Druckenmiller, 2004; Brooking, 1997; Hill & Jones, 1992; Itami & Roehl, 1987; Oster, 1990; Park, Jaworski, & Maclnnis, 1986).

Product and service reputation refers to the perception that customers and other stakeholders hold of the firm's quality, reliability, and innovativeness of products and services relative to some standard (Barney, 1986b; Hall, 1992, 1993; Michalisin et al., 1997; Weigelt & Camerer, 1988; Zeithaml, 2000).

Customer service reputation refers to customers' and other stakeholders' perceptions of the firm's capability and past performance in delivering post-sale customer services (such as installation, training, maintenance, repair, processing warranty claims, and providing technical advice) according to some standard; perceptions may be based on factors such as availability, responsiveness, quality, reliability and cycle times (Bates, Bates, & Johnston, 2003; Galbreath, 2004; Groth, 1995). Customer service reputation may be understood as an implicit guarantee that the firm resolves post-sale issues to the satisfaction of customers (Wirtz, Kum, & Lee, 2000).

3.3.8 CAPABILITIES

Capabilities represent, broadly conceived, the firm's repertoire of activities. Given the various and inconsistent definitions of the term and the eclectic interpretations in empirical studies (Collis, 1994), there appears to be no unique or best way to classify

capabilities. One approach, as suggested by Grant (2008), is to derive capability classes by performing an in-depth functional analysis in one or more organizations of interest. Another approach, offered by Galbreath (2004, pp. 115–116), is to break up the concept of capabilities into its constituent parts, including "routines", "managerial know-how", "employee know-how", and "relational abilities". The present study follows the second approach, since it allows the definition of relatively generic resource categories that constitute capabilities. Thus, the following working definitions for capabilities will be used.

Routines are repeatable and coherent sets of activities, organized according to some set of principles or rules, that aim to solve a problem or to accomplish an objective; they can be strategic, operational, or dynamic in nature, involve different levels of subroutines, and transcend across organizational boundaries (Ambrosini, 2003; Bhatt, 2000; Cohen & Bacdayan, 1994; Cohen et al., 1996; Grant, 1996b; Hammer & Champy, 1993; Knott, 2003; Montgomery, 1995; Nelson & Winter, 1982; Porter, 1985; Teece et al., 1997; Zollo & Winter, 2002; Zott, 2003)[2].

Managerial know-how refers to the knowledge, skills (e.g., interpersonal, communicative, conceptual, planning, organizational, decision-making, resource management, and leadership skills), experience, expertise, insight, judgment, and intellectual capacity of a firm's managers (Brooking, 1997; Castanias & Helfat, 1991, 2001; Coff, 1999; Finkelstein & Hambrick, 1996; Hambrick, 1987; Hitt, Bierman, Shimizu, & Kochhar, 2001; Kor, 2003; Michalisin et al., 1997; Penrose, 1959; Petrick, Scherer, Brodzinski, Quinn, & Ainina, 1999; Wright et al., 1994)

Employee know-how refers to the knowledge, skills, experience, ideas, and insights of a firm's employees (Grant, 1996b; Hall, 1992, 1993; Itami & Roehl, 1987; Michalisin et al.,

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2 The term routine is frequently used in the evolutionary economics, strategic management, and RBV literature, the term process in the management literature, and the term activity in the industrial economics literature; these terms, however, can be considered synonymous as their essential notion is the same – it is a set of activities organized in some fashion to attain a particular goal involving a set of organizational resources (cf. Hammer & Champy, 1993; Nelson & Winter, 1982; Porter, 1985)

1997; Nelson & Winter, 1982; Oster, 1990; Stewart, 1997; Teece, 1981; Winter, 1987; Wright et al., 1994)

Relational abilities refer to the development and maintenance of effective work relationships between individuals and groups of individuals within the firm and across firm boundaries – with customers, suppliers and other market participants – to access, develop, and share knowledge and other firm resources (Anand & Khanna, 2000; Brooking, 1997; Das & Teng, 2000a; Day, 2003; Hall, 1993; Hitt, Dacin, Levitas, Arregle, & Borza, 2000; Ireland, Hitt, & Vaidyanath, 2002; Jarillo, 1988; Kale, Dyer, & Singh, 2002; Kogut, 2000; Lavie, 2006; Rothaermel & Deeds, 2004; Stewart, 1997; Tomer, 1987).

3.3.9 DEFINITIONS USED IN THIS RESEARCH

The above-mentioned resource classifications and conceptual definitions build an integral part of the conceptual framework. These resource classifications are used to explore sources of superior firm performance in a semi-structured way. The next section covers the concept of strategic firm resources and the conditions of sustained competitive advantage.

3.4 STRATEGIC FIRM RESOURCES

Crafting and executing an effective firm strategy may require a set of tangible and intangible firm resources. While all these resources may be important, the RBV suggests that only those with specific characteristics can contribute to superior firm performance. As discussed earlier, the RBV departs from the assumption that these resources need to be heterogeneous and imperfectly mobile (Barney, 1991; Peteraf, 1993). Based on these two assumptions, scholars have proposed a number of resource characteristics that indicate a resource's potential to add economic value to the firm. High economic returns are expected to flow from resources that are attractive (Wernerfelt, 1984), critical (Peteraf & Barney, 2003; Wernerfelt, 1989), durable (Amit & Schoemaker, 1993; Grant, 1991; Mahoney & Pandian, 1992), firm-specific (Amit & Schoemaker, 1993), idiosyncratic (Barney, 1991; Mahoney & Pandian, 1992), immobile (Barney & Arikan, 2001; Barney, 1991; Peteraf, 1993), imperfectly replicable (Grant, 1991), imperfectly transparent (Grant, 1991), invisible (Itami & Roehl, 1987), non-tradable (Dierickx & Cool, 1989; Peteraf, 1993), non-transferable (Grant, 1991), non- or imperfectly imitable (Barney, 1991, 2001a; Dierickx & Cool, 1989; Mahoney & Pandian, 1992; Peteraf, 1993), non- or imperfectly substitutable (Barney & Arikan, 2001; Barney, 1991; Dierickx & Cool, 1989; Mahoney & Pandian, 1992; Peteraf, 1993; Wernerfelt, 1984), rare (Barney, 1986a,

1991, 2001a), scarce (Amit & Schoemaker, 1993; Barney & Arikan, 2001; Mahoney & Pandian, 1992; Peteraf & Barney, 2003; Peteraf, 1993; Ricardo, 1817; Rumelt, 1987), strategic (Amit & Schoemaker, 1993; Barney, 1991; Black & Boal, 1994), superior (Mahoney & Pandian, 1992; Peteraf, 1993), superior in use (Peteraf & Barney, 2003), unique (Barney, 1986b), and valuable (Barney & Arikan, 2001; Barney, 1986a, 1991, 2001a; Mahoney & Pandian, 1992; Peteraf & Barney, 2003).

According to Barney (1991), the conditions for a competitive advantage are "value" and "rareness", and the conditions to sustain a competitive advantage over time are "inimitability" and "non-substitutability". These conditions became the so-called "VRIN" framework. Barney (1997) introduced a revised version of the framework, which was labelled "VRIO".[3] In the VRIO framework, the condition of non-substitutability has been integrated into the condition of inimitability, and the letter "N" was replaced by the letter "O", which denotes organization. The organization condition suggests that resources need to be deployed in concert with other resources to fully exploit their economic potential. There is, however, no specific resource attribute that directly links to the "O" condition. I will use the VRIN framework to group the host of resource attributes that scholars suggest to have an effect on firm performance (Table 2).

[3] See also a critique of the VRIO framework in Sanchez and Heene (2008)

Table 2: Conditions of superior firm performance (VRIN) and associated resource attributes

	Value	Rareness	Inimitability	Non-Substitutability
Resource attributes	– valuable – attractive – superior (in use) – critical – durable	– rare – scarce – unique – inelastic in supply – firm-specific – idiosyncratic – immobile – non- or imperfectly tradable – non- or imperfectly transferable	– non- or imperfectly imitable – imperfectly replicable – imperfectly transparent – invisible	– non- or imperfectly substitutable
	– strategic			

3.4.1 VALUE CONDITION

Scholars suggest that a resource is valuable when it allows a firm to develop and deliver strategies that "improve its efficiency and effectiveness" (Barney, 1991, p. 106); reduce its net costs or increase its net revenues (Barney & Arikan, 2001, p. 143); better satisfy customer needs and/or increase production efficiency (Peteraf & Barney, 2003); or "exploit opportunities or neutralize threats" in its markets (Barney, 1991, p. 106). The extent to which resources add economic value to the firm also depends on the market and the competitive setting in which they are employed; resources that are valuable in one setting may be relatively unimportant or even dysfunctional in another setting (Amit & Schoemaker, 1993; Barney & Arikan, 2001). Amit and Schoemaker (1993) termed these strategically relevant resources "strategic assets". Wernerfelt (1984) used the term "attractive resources" to refer to resources that have been obtained ahead of other firms, and noted that imitating firms (due to changed accumulation dynamics) will find such resources more difficult, more costly, or economically less rewarding to obtain. The literature also contains other terms similar in substance to value, including "superior", "superior in use" or "more efficient". Grant (1991) also suggests that in order for a resource to confer a long-lasting competitive advantage it needs to be durable or maintained in ways that preserves its value-creating capacity. A similar concept has been introduced by Dierickx and Cool (1989) who suggest that the resource accumulation

process may be subject to *asset erosion*, which implies that the resource loses its value if it is not properly maintained.

For the purposes of this study, I adopt the following working definition: *A resource is valuable if it allows a firm to implement strategies that have the effect of increasing perceived customer benefits or reducing a firm's economic costs in delivering these benefits.*

3.4.2 RARENESS CONDITION

In order for a resource to exclude competing firms from attaining similar levels of competitiveness (i.e., competitive advantage), it needs to be rare (Amit & Schoemaker, 1993; Barney, 1991). A resource is rare to the extent to which its demand exceeds its long-term supply and to the extent to which it is heterogeneously distributed among competing firms (Barney & Arikan, 2001; Barney, 1991, 2001a; Peteraf & Barney, 2003; Peteraf, 1993; Wernerfelt, 1984). The literature also makes use of adjectives related to *rare*, including *scarce* and *unique*. Scarce and rare seem to have no difference in meaning, whilst unique has been used to describe resources that are functionally distinct or exclusively held by a single firm.

Another set of adjectives refers to an implicit characteristic of rare resources: resource immobility. Resources are considered imperfectly mobile when they are either non- *or* imperfectly tradable or non- or imperfectly transferrable*.* The quality of being *non- or imperfectly tradable* is attributed to resources that have either imperfect property rights, "bookkeeping feasibility" issues, or only utility in rare organizational contexts (Dierickx & Cool, 1989; Peteraf, 1993), whereas non- or imperfectly transferable refers to resources that cannot be efficiently or effectively transferred from one firm to another due to factors such as firm specificity (Grant, 1991; Peteraf, 1993), stranded costs (Montgomery & Wernerfelt, 1988; Peteraf, 1993), resource interdependence (Grant, 1991; Peteraf, 1993; Teece, 1986b), costs of information and uncertainty (Grant, 1991; Reed & DeFillippi, 1990), geographical boundedness (Grant, 1991), and transfer costs (Peteraf, 1993). Similar in import are the adjectives *firm-specific* and *idiosyncratic,* both of which imply that a transfer limits the resource's productive capacity (Peteraf, 1993).

The logic used to evaluate rareness may also be applied to combinations of resources: when valuable (but not necessarily rare) resources are combined in ways that are rare among competing firms, such resource combinations can be a source of competitive advantage (Barney, 1991). For the purposes of this study, resource combinations are conceptualized as higher order resources, such as distinctive competences or core

competences. This keeps the focus on a single unit of analysis and avoids the confusion that can arise from using multiple units of analysis in a single study. For a discussion of the unit of analysis used in this study, see Chapter 5 (research design).

3.4.3 INIMITABILITY CONDITION

In order for a resource to maintain the quality of being rare among competing firms, it needs to be *inelastic in supply* (Barney & Arikan, 2001; Dierickx & Cool, 1989) or, put another way, *imperfectly imitable* (Barney, 1991; Lippman & Rumelt, 1982). Firm resources are considered imperfectly imitable when one or more factors constrain their imitation, including (1) *causal ambiguity* (Barney, 1991, 2001a; Dierickx & Cool, 1989; Grant, 1991; Lippman & Rumelt, 1982; Mahoney & Pandian, 1992; Peteraf, 1993); (2) *social complexity* (Barney, 1991, 2001a; Mahoney & Pandian, 1992); (3) *history/path dependency* (Barney, 1991, 2001a; Dierickx & Cool, 1989); and (4) *property rights* (Mahoney & Pandian, 1992; Rumelt, 1984). Another factor that does not directly constrain imitation, but that at least can prevent imitating firms from catching up quickly is *time compression diseconomies* (Dierickx & Cool, 1989).

Causal ambiguity – refers to imperfect information about (a) the sources of a competitive advantage, i.e., competitors do not know with certainty which resources need to be imitated (Barney, 1991; Lippman & Rumelt, 1982), and (b) the development process behind individual resources; i.e., competitors do not know with certainty how to develop these resources (Dierickx & Cool, 1989). Other terms referring to the same imitation barrier include "imperfect transparency" (Grant, 1991, p. 125), "invisibility" (Itami & Roehl, 1987) and "complexity" (Grant, 1991, p. 127). Causal ambiguity, however, is only an imitation barrier when all firms, including the firm that actually holds the competitive advantage, have an imperfect understanding of the underlying causal links, since it is assumed that once such knowledge is developed, it spreads to other firms in the industry (Barney, 1991; Reed & DeFillippi, 1990).

Social complexity – suggests that the development process of a resource involves a series of social interactions or that the resource is connected to social resources (e.g., reputation, culture, relationships, routines); socially complex resources are thus inherently difficult to observe and understand (Barney, 1991). Although competing firms may gain an understanding of socially complex resources, that does not imply that they can replicate them in a methodical way; it is assumed that imitating firms will find it rather difficult to obtain all the necessary skills and abilities to manage such complex

processes (Barney, 1991; Teece et al., 1997). To the extent that valuable, rare, and socially complex resources are imperfectly understood and rely on rare replication capabilities, these resources are sources of sustained competitive advantage (Barney, 1991).

History/path dependency – suggests that a resource can only be obtained under particular circumstances (that obtained at some past time) or through particular development paths (Barney, 1991, 2001a; Bates & Flynn, 1995; Dierickx & Cool, 1989; Teece et al., 1997). The development path may reflect a firm's unique history (Barney, 1991) and exhibit other path-dependent characteristics such as *asset interconnectedness* and *asset mass efficiencies* (Dierickx & Cool, 1989, p. 1507). Hence, such resources are imperfectly imitable to the extent that historical circumstances do not recur in the future and to the extent that resource development paths are linked to distinctive firm histories.

Property rights – Some resources are protected by intellectual property rights and thus may resist direct replication. This includes patents, trademarks, registered designs and copyrights (Mahoney & Pandian, 1992; Rumelt, 1984). However, this does not imply that competing firms cannot engage in efforts to substitute such resources through functionally equivalent resources. Intellectual property laws may hinder imitation efforts as long as ignoring property rights is associated with higher costs than benefits.

The above-mentioned imitation barriers may apply either individually or in combination. These barriers not only impede imitation, but also impede mobility (see the discussion on the rareness condition, above). Thus, an inimitable resource is also likely immobile (Lippman & Rumelt, 1982; Peteraf, 1993).

3.4.4 NON-SUBSTITUTABILITY CONDITION

Finally, to confer a long-lasting competitive advantage, a resource needs to be costly or difficult to replace with other resources, thereby depriving competitors from implementing the same value-creating strategy (Barney, 1991). A resource is considered imperfectly substitutable when alternative resources or resource arrangements are either non-existent, functionally inferior, or costly to obtain (Barney & Arikan, 2001; Barney, 1991, 2001a; Dierickx & Cool, 1989; Mahoney & Pandian, 1992; Peteraf, 1993; Wernerfelt, 1984).

3.4.5 Definition of strategic resources in this dissertation

Based on the above discussion of various resource attributes and conditions of sustained competitive advantage I use the following working definition in this study: *Strategic resources are assets or capabilities that are at the same time valuable, rare, imperfectly imitable, and imperfectly substitutable.*

3.5 Superior performance

A further central concept in the RBV is firm performance. The most central assertion of the RBV is that firms with specific resources can implement market strategies that result in superior firm performance in the form of competitive advantage or economic rents.

3.5.1 Economic rents

A first concept of firm performance is economic rents. Economic rent has been defined as "payments for a factor above and beyond that required to attract it to its present use" (Rumelt, 1987, p. 143) ", "above normal returns" (Barney, 1986b, p. 1233), "returns to a factor in excess of its opportunity costs" (Peteraf & Barney, 2003, p. 315), returns by assets in "fixed supply" (Teece, 1986b, p. 198), and "higher returns than … expected by stockholders" (Barney, 2001a, p. 47). An economic rent can be seen as a non-expected positive value resulting from the productive use of a resource (Barney, 1986b). If some of this economic rent is attributed to the customer (by setting the price accordingly), the economic rent attributable to the firm is consequently reduced by the same amount (Figure 8). This interpretation is consistent with Barney's (1986b) definition of rents, in which normal returns refer to the projected performance level of a resource in strategic factor markets. This is somewhat different from the interpretations of economic rents that use other reference points, such as rivals, opportunity costs, or expectations of stockholders.

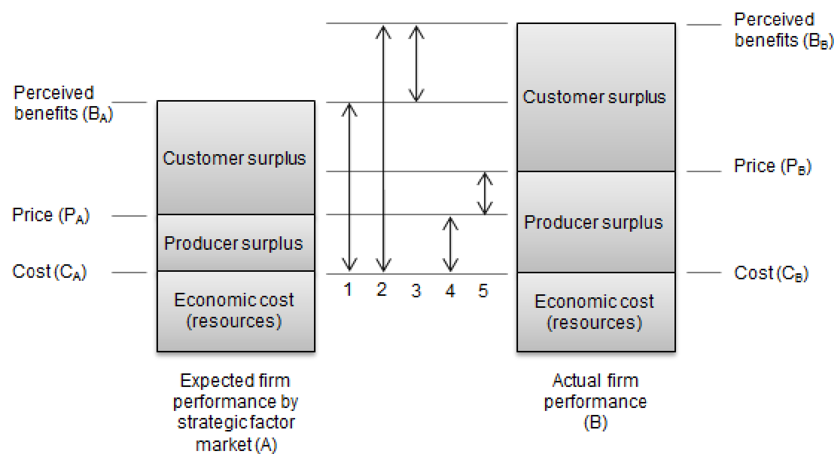

Figure 8: Economic rent attributable to the firm

There are essentially four categories of rents: Entrepreneurial (or Schumpeterian) rents, Ricardian rents, monopoly rents, and Pareto rents (Mahoney & Pandian, 1992). Entrepreneurial rents can arise from a more accurate understanding of difficult-to-predict markets or from embarking on ventures for which success cannot be guaranteed (Rumelt, 1987). Ricardian rents can arise from resources that are superior, scarce, and relatively fixed in supply (Barney & Arikan, 2001; Mahoney & Pandian, 1992; Peteraf, 1993; Rumelt, 1987). Monopoly rents stem from purposefully limiting the supply of a product in markets to raise prices above competitive levels, for example, by raising entry barriers for new competitors, establishing mobility barriers for firms within the industry, concluding collusive agreements among incumbent firms, or making use of institutional protection schemes (Mahoney & Pandian, 1992; Peteraf, 1993). Finally, Pareto rents (quasi-rents) refer to return differentials when the two best opportunities of deploying a resource are compared (Mahoney & Pandian, 1992; Peteraf, 1993). The logic of the RBV can be applied to all rent categories that are based on resource heterogeneity; i.e. entrepreneurial, Ricardian, and monopoly rents (Mahoney & Pandian, 1992; Peteraf & Barney, 2003; Peteraf, 1993), but not to Pareto rents (Peteraf, 1993).

Rents also have a life cycle, which depends on the supply elasticity of the underlying resource: the higher the supply elasticity of a resource, the shorter the life cycle. A rent is relatively sustainable if the resource's supply is "fixed" (e.g., a finite resource such as land), or "quasi-fixed" (e.g., a resource that is difficult or costly to imitate) (Mahoney &

Pandian, 1992; Peteraf & Barney, 2003). Thus, I will use in this study the following working definitions of rents:

Rents are above-normal returns to resources.

Persistent rents are above-normal returns to resources that are scarce and imperfectly elastic in supply.

3.5.2 COMPETITIVE ADVANTAGE

Competitive advantage can be defined as the firm's ability "to create more economic value than the marginal (breakeven) competitor in its product market" (Peteraf & Barney, 2003, p. 314). Economic value, in turn, can be defined as "the difference between the perceived benefits gained by the purchasers of the good and the economic cost to the enterprise" (Peteraf & Barney, 2003, p. 314). Finally, marginal competitor can be defined as "the least efficient competitor capable of breaking even" (Peteraf & Barney, 2003, p. 315). Figure 9 provides an overview of these concepts.

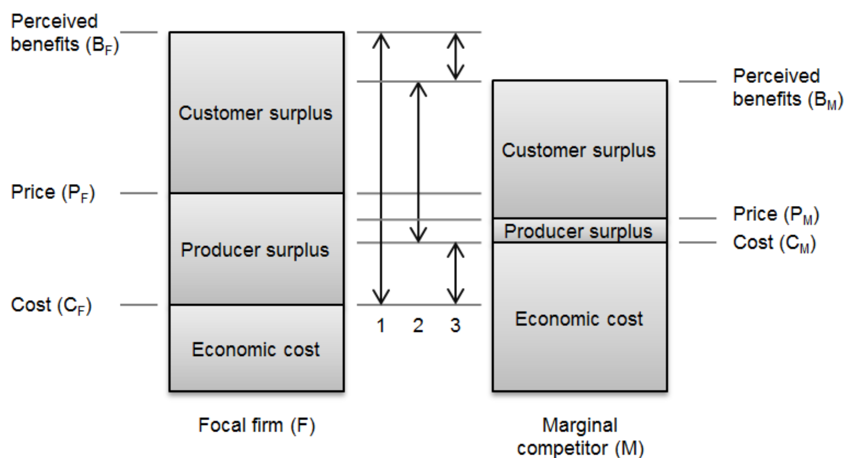

Figure 9: Conceptual representation of competitive advantage (adapted from Peteraf & Barney, 2003, p. 314)

This definition of competitive advantage focuses on the creation of economic value and leaves the question of how the created value is distributed among the various stakeholders of the firm open. One mechanism for allocating the economic value created between customers and the firm (i.e. shareholders and other firm stakeholders) is the price (Peteraf & Barney, 2003).

However, the two concepts perceived customer benefits and economic cost have been less well defined in the RBV literature. For instance, it is not clear whether perceived benefits are a function of anticipated or effectively delivered benefits. Nor is it clear whether economic cost is a function of past and future costs, or only future costs. However, one possible interpretation is that perceived customer value represents a discounted stream of anticipated benefits at a given time. Likewise, economic costs may be understood as a discounted stream of anticipated costs at a given time. Hence, past benefits and past costs may be excluded from the equation since they have been accounted for in previous periods.

A competitive advantage can result in a variety of performance outcomes such as rents, market share, and financial performance (Peteraf & Barney, 2003). It may be assumed that competitive advantage and financial performance are generally highly correlated (Coff, 1999), though exceptions are possible. Competitive advantage is not a necessary condition for superior firm performance, as there are other possible ways to inflate financial returns (Makadok, 2011). Furthermore, a firm with a competitive advantage can have a low financial performance if stakeholders other than shareholders can appropriate most of the economic value created (Coff, 1999).

The RBV suggests that competitive advantage can be attributed to a subset of firm resources that are particularly effective in creating benefits for customers or increasing the firm's efficiency in delivering these benefits (so-called superior critical resources) (Peteraf & Barney, 2003, p. 311)

Following Peteraf and Barney (2003), I will use the following working definitions for the study: A *competitive advantage* is the firm's ability to create more economic value than the marginal competitor in its product market. A *temporary competitive advantage* is a competitive advantage in disequilibrium conditions. A *sustained competitive advantage* is a competitive advantage in equilibrium conditions.

This definition requires the specification of the term equilibrium. *Equilibrium* is a state in which the efforts of competing firms to imitate or substitute the sources of a competitive advantage have ended (Barney & Arikan, 2001, p. 141).

The definitions above do not imply that a sustained competitive advantage will last forever. As the value of resources depends on the external environment, changes in the environment (also referred as "Schumpeterian shocks") can erode the value of firm

resources, and thus dissolve a competitive advantage (Barney, 1991). It has been argued that to preserve a competitive advantage in times of contextual changes (those that affect the value of resources) a firm must possess "dynamic capabilities" to align the resource base accordingly (Eisenhardt & Martin, 2000; Teece et al., 1997). Adequate dynamic capabilities can thus be seen as a necessary condition for maintaining a favourable competitive position over time in dynamic competitive settings. Yet though they are necessary, adequate dynamic capabilities and resources that are concurrently valuable, rare, imperfectly imitable, and imperfectly substitutable are not sufficient conditions for securing a competitive advantage in absolute terms. Thus, in this dissertation sustained competitive advantage is interpreted as a temporal concept.

In this study, I focus on competitive advantage rather than rents, since the purpose of the study is to understand firm-level differences that enable a firm to create more economic value that competing firms. Following Peteraf and Barney (2003), rents are considered one out of many possible outcomes of competitive advantage.

3.6 RESOURCE MARKETS

A further central concept in RBV is formed by the markets in which firms obtain their basic input factors and buy, trade or share the resources needed for their strategies to generate value (Barney, 1986b; Peteraf, 1993). These resource markets – or "strategic factor markets" as Barney (1986b) calls them – are important for two main reasons. First, they constitute an important source of resource heterogeneity among firms (Barney, 1986b; cf Dierickx & Cool, 1989). Second, strategic factor markets determine the cost of the resources required to implement a given firm strategy (Barney, 1986b). Barney (1986b) argues that when the necessary resources for a strategy can be obtained in competitive factor markets, a firm cannot expect superior returns from its strategy, since the actual value that such a strategy generates is fully reflected in the price of these resources. Thus, superior performance is predicated on the firm's ability to obtain strategic resources at favourable rates (use value for the firm is higher than what it needs to pay) in imperfectly operating resource markets. Figure 10 indicates how imperfections in strategic factor markets affect economic returns.

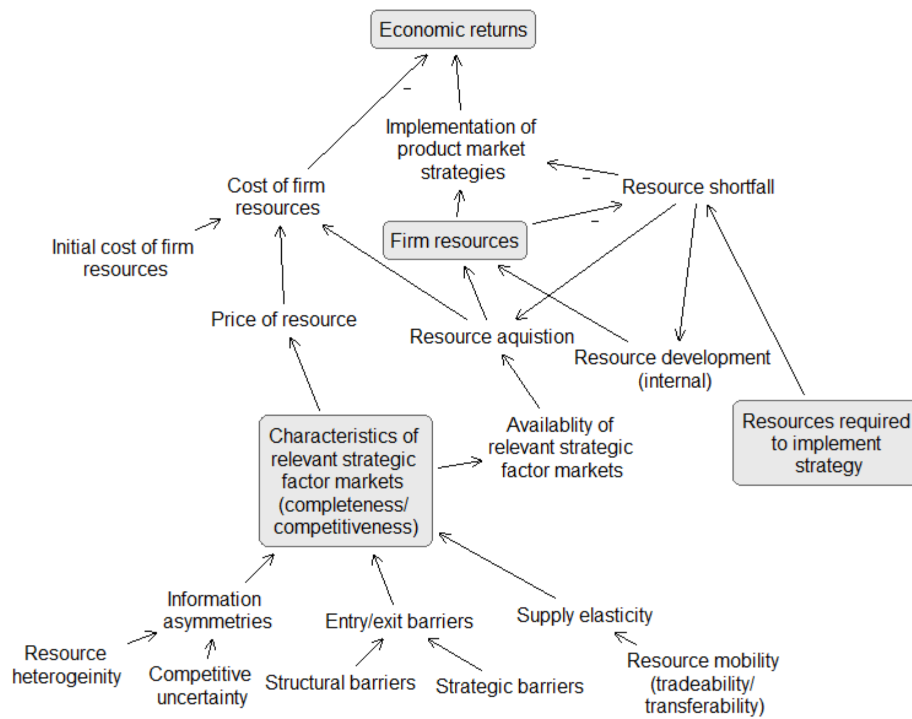

Figure 10: Relationship between strategic factor market characteristics and economic returns

Strategic factor markets may exhibit different degrees of completeness (Dierickx & Cool, 1989). An important assumption of the strategic factor market concept is that strategic factor markets develop when there is a demand for a strategic resource (Barney, 1986b). However, for highly immobile resources, such as firm culture or corporate reputation, such markets may not be established at all (Dierickx & Cool, 1989; cf. Barney, 1986b). This in turn suggests that firms need to develop these resources from other resources they already control and/or from resources that are available in strategic factor markets. Furthermore, strategic factor markets may be considered incomplete when they are inelastic in supply. *Supply inelasticity* exists when resources are "fixed" or "quasi-fixed" in supply (Barney & Arikan, 2001; Barney, 2001b; Peteraf & Barney, 2003; Peteraf, 1993). Fixed resources, such as land, have a finite availability which cannot be changed on purpose (Peteraf, 1993; Ricardo, 1817). Quasi-fixed resources, on the other hand, are also limited in supply, but for a different reason: they are imperfectly mobile, that is, non-/imperfectly transferable or tradable (Dierickx & Cool, 1989; Peteraf, 1993).

In addition, strategic factor markets may exhibit different degrees of competitiveness (Barney & Arikan, 2001). As indicated above, in perfectly competitive strategic factor markets, all market participants have equal information about the economic value that a resource contributes when employed in firm strategies. The price that market

participants are willing to pay for that resource fully reflects its economic potential, which implies that such a resource cannot yield above normal returns (Barney, 1986b).

However, strategic factor markets can also be imperfectly competitive. Sources of market imperfections include *information asymmetries* among market participants, i.e., buyers and sellers may be confronted with different uncertainties and interpret available information differently, which can result in divergent expectations about the true value that the resources will generate for prospective buyers (Barney, 1986b, 1991, 2001a; Peteraf & Barney, 2003; Peteraf, 1993; Rumelt, 1987). There are two main sources of uncertainties that can contribute to information asymmetries. First, there may be substantial uncertainty about the way a resource will be used in concert with other firm resources to implement a firm strategy and how much of the value generated by this strategy is attributable to that resource (causal ambiguity) (Dierickx & Cool, 1989). The second major source of uncertainty concerns changes in market preferences, technology, and other aspects of the competitive setting (Barney, 1986a).

In imperfectly competitive strategic factor markets, there are essentially two possibilities to earn economic rents. A firm can earn economic rents when it possesses superior capabilities to estimate the actual value of a resource, and when other firms without such capabilities underestimate the value of that resource (Barney, 1986b). Obviously, a firm cannot earn economic rents, despite its superior value-estimating capabilities, when other firms are too optimistic and overestimate the resource's value. In such a situation, a firm with superior value-estimating capabilities will likely not bid for that resource, and thereby avoid an economic loss (Barney & Arikan, 2001). Second, a firm can earn economic rents when all firms in a particular resource market, including the focal firm, underestimate the actual value of a resource, but the focal firm can employ the resource in ways that yields higher than expected returns (Barney, 1986b). In short, firms can earn economic rents when they use their superior value-estimating capabilities to acquire undervalued resources (rents attributable to entrepreneurship), or when they acquire resources that turn out to be more valuable than expected (rents attributable to luck).

In addition to supply inelasticity and information asymmetries, there are potentially other reasons why resource markets are less than perfect, which includes, for example, factors that hinder firms from entering or exiting an industry (structural or strategic barriers) (Barney, 1986b; Lippman & Rumelt, 1982; Yao, 1988). The two sources of

market imperfections emphasized in the RBV literature are, however, supply inelasticity and information asymmetries.

3.7 PROPOSED CONCEPTUAL FRAMEWORK

The firm resources, strategic resources, firm performance, and resource markets constitute the main concepts of the conceptual framework (Figure 11). However, since the present research seeks to uncover the sources of competitive advantage, the focus will be set on strategic resources.

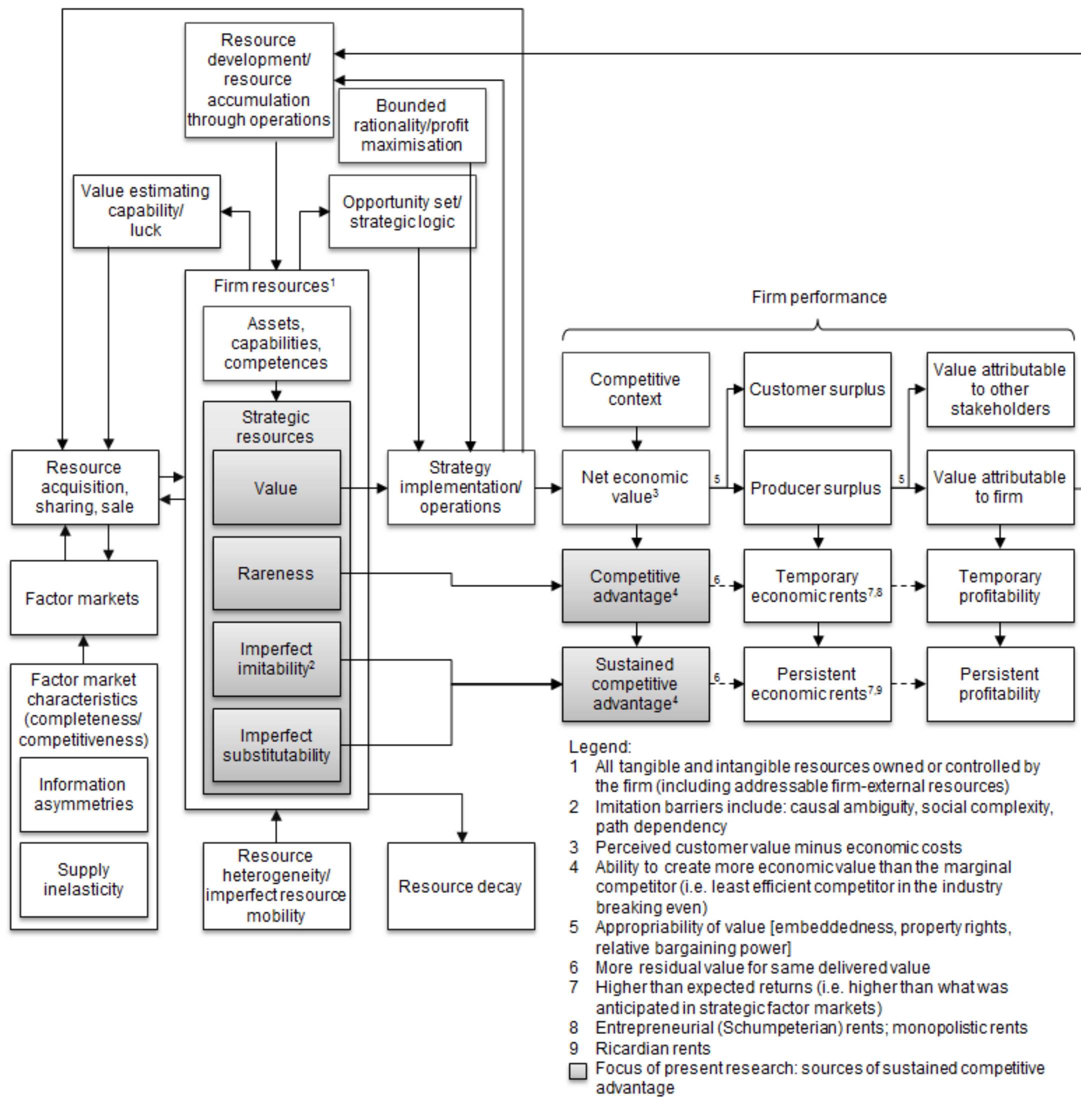

Figure 11: Proposed conceptual framework for exploring the sources of sustained competitive advantage

3.8 CHAPTER CONCLUSION

The purpose of this chapter has been to develop a conceptual framework to support and inform the research, and it has to that end considered the main theoretical assumptions and concepts related to the RBV as well as constructed a graphical representation of the conceptual framework that underlies this study. The present section concludes the chapter by highlighting a few of the key aspects of the conceptual framework and the way it is employed in the present study.

First, the RBV assumes that managers are boundedly rational. That means, that they are most of the time rational in identifying business opportunities, to devise strategies do address these business opportunities, and to select, manage, develop and use resources in way that maximises the firm's economic value. Implicit in this assumption is that managers are more or less a common resource (i.e., that their skills, abilities, knowhow, etc. does not greatly vary among competing firms, or that it does not matter). I agree with the RBV theory's hypothesis that managers are rational, but I do not consider that to imply that all managers would act the same way under the same conditions. Rather, I expect that managers might differ in e.g. their cognitive abilities in ways that would influence their rational decision-making and thus have implications for competitive advantage. In short, there is no compelling reason to exclude managers as potential sources of competitive advantage from this study.

Second, I use a relatively broad definition of firm resources that covers all possible classes of firm-level differences including capabilities, assets, and competences. Furthermore, I include all resources, regardless of their economic effect, strategic value, or status of full or partial control by the firm. Some scholars seem to adopt a much narrower view. I believe that an overly narrow view excludes, a priori, some of the potential firm level differences that could help to better understand and explain the phenomenon of competitive advantage. Furthermore, a broader definition of resources also minimizes the threat of developing tautological theories. Some scholars seem to define resources as something economically valuable (which is, with respect to competitive advantage, a tautological definition). While it is true that in most cases resources are economically valuable, a resource can also be a legacy and thus be a competitive weakness. For example, a technology that has proven innovative and valuable in past periods may be made obsolete by newer technologies. An outdated technology, which may be deeply linked with other assets such as the installed customer

base and employees' technological skills, may become a legacy for the firm and thus represent a competitive weakness. Similarly, existing capabilities may become inadequate for sizing future opportunities and constrain the organization in adapting to market changes (Leonard-Barton, 1992). In short, resources can have both positive and negative implications for competitive advantage.

Third, although the study adopts an inductive approach, it takes the generic resource pool as the point of departure from which to explore the sources of competitive advantage. A generic resource pool can be used as a reference point to facilitate the exploration of the resource areas that are most likely associated with competitive advantage. This conceptualization thus helps to structure and focus the data collection process, and aids in inductively exploring the concepts most closely related to the main research question (see Section 5.2.3).

Fourth, the study concentrates on competitive advantage and not on performance in general. The conceptual framework discusses the way in which strategic resources are related to competitive advantage, and what types of performance outcomes competitive advantage can have. It further details the conditions that must be met to gain a competitive advantage and to sustain a competitive advantage. The conceptual framework also highlights the research problem, i.e. that we still have a limited understanding of what exactly constitute strategic resources and how those resources contribute to competitive advantage.

Finally, the conceptual framework links the various assumptions that underlie the resource-based perspective of competitive advantage. It also links other resource-based concepts, such as strategic factor markets, to the general resource-based framework of competitive advantage (VRIN).

4 RESEARCH METHODOLOGY

4.1 CHAPTER INTRODUCTION

This chapter outlines the research methodology for this study. On a fundamental level, a research methodology may be understood as a "combination of techniques used to enquire into a specific situation" (Easterby-Smith et al., 2002, p. 31). According to Creswell (2003), a research methodology covers a number of elements including the research paradigm (i.e., philosophical assumptions, theoretical perspective, knowledge claims), the research strategy, the methods for data collection and analysis, research approach, and research design. As depicted in Figure 12, these elements are also influenced by the particulars of the research project, which have been described at some length in Chapters 1-3.

The paradigm adopted for this research is relativism. The research strategy selected for this dissertation is the case study method. The method for collection is interviewing. The method for data analysis consists of a set of qualitative analytical procedures. The resulting research approach is inductive, qualitative, and exploratory. Together, these elements inform the research design for the present research, which will be described in detail in Chapter 5.

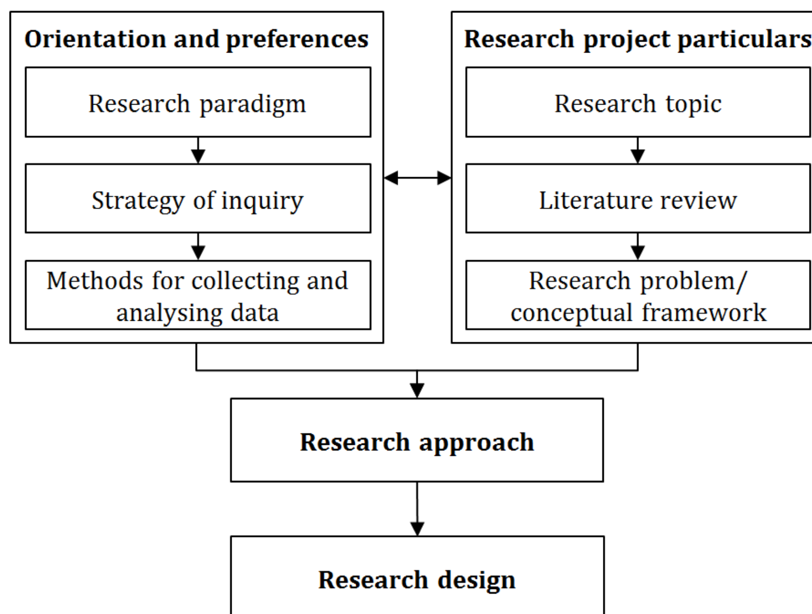

Figure 12: Overview of the methodological framework: Orientation and preferences, research project particulars, research approach, and research design

4.2 RESEARCH PARADIGM

Morgan and Smircich (1980, p. 491) suggest that any research project is informed by a variety of assumptions that the researcher holds about the "nature of knowledge and the methods through which that knowledge can be obtained, as well as … about the nature of the phenomena to be investigated". These assumptions may fall into established and widely accepted sets of beliefs and assumptions, referred to as "knowledge claims" (Creswell, 2003) or "paradigms" (Burrell & Morgan, 1979; Guba & Lincoln, 2005). Burrell and Morgan (1979), for example, suggest that there are four basic research paradigms in social research: "functionalism", "interpretivism", "humanism", and "structuralism". Guba and Lincoln (2005) distinguish between five paradigms – "positivism", "postpositivism", "critical theory", "constructivism", and "participatory" paradigm – while Easterby-Smith et al. (2002) emphasize "positivism", "relativism", and "social constructionism" as the most pre-eminent paradigms in management research. These paradigms serve as a basis for planning and managing research efforts (Denzin & Lincoln, 2005a) and as a "frame of reference" for building and verifying theories (Burrell & Morgan, 1979, p. 23). The assumptions encompassed in research paradigms relate to *ontology*, *human nature*, *epistemology*, and *methodology* (Burrell & Morgan, 1979; Morgan & Smircich, 1980). The subsequent sections discuss them with respect to the present research in more detail.

4.2.1 ONTOLOGY

A first set of assumptions concern the status and characteristics of reality, referred to as ontology (Easterby-Smith et al., 2002). Burrell and Morgan (1979) suggest that the research subject may be part of a reality that is either "objective" or "subjective" in nature. An objective position holds that reality consists of a universe of concrete and interrelated components that exist independent of the perception or mental capacity of human beings. A subjectivist position, by contrast, holds that reality is construed or even created by individuals through idiosyncratic cognitive processes, thereby rejecting the thought that an objective external universe exists or considering it of limited relevance for understanding social phenomena (Burrell & Morgan, 1979).

These two positions also epitomize the debate in social science between "realism" and "nominalism" (Easterby-Smith et al., 2002). Between these two polar positions, a variety of ontological positions may be found. For example, Morgan and Smircich (1980) suggest that researchers may also make further assumptions about social reality, whether it is

static or dynamic. These two authors furthermore suggest that reality might be either simply a given, like the natural world; the outcome of social creative act; or the outcome of individual perception and imagination. Thus, there is potentially a wide range of possible ontologies that researchers may adopt to enquire into a specific situation. Easterby-Smith et al. (2002) suggest there are three broad basic ontologies in social science: "realism", "relativism", and "nominalism". Realism refers to the objective position and nominalism to the subjective position described above. Relativism in essence also assumes an objective external reality but one that critically depends on situational factors (Easterby-Smith et al., 2002).

As discussed in previous chapters, this research concentrates on understanding competitive advantage from a resource-based perspective. Thus, the essence of the phenomenon to be studied is the value-creating capacity of firms. I depart from the simplifying assumption that firms consist of a set of productive resources managed in some way to create economic value, that these resource sets among firms can differ, and that these differences can have implications on firm performance. There may be tangible resources, such as buildings, which are part of an objective reality. In addition, there are also firm resources that are more intangible in nature, such as trust among market partners, the vision of a management team, customer loyalty, or the reputation of a firm; these are socially constructed. The meaning of these concepts also depend on the frame of reference of the individual actors. As an example, consider the various dimensions of money, such as a 100 Euro bill. It has tangible and measurable dimensions, such as its material, weight, colour, and size. On the other hand, it also has less tangible dimensions, such as its value. The production cost of such a bill may be estimated to be below 1 Euro. A pertinent question is, then, why people attribute to this bill a value significantly higher than its production cost. Why may there be even some variation the in the value that individual people attach to the same bill? The value that individuals ascribe to this bill may depend on a number of factors including idiosyncratic characteristics (e.g., values, beliefs, mental models), and the specific context in which meaning is constructed (e.g., time and space). For instance, a two-year-old child may have a fundamentally different concept (if any) of a 100 Euro bill than an educated adult. Likewise, time, place and other contextual factors may influence its perceived value: it makes a difference whether one has such a bill in one's pocket in a supermarket or on a desert island.

In short, my ontological assumption is that the social world consists of both tangible concepts that have a counterpart in the real, physical world, and intangible concepts that

exist in our minds. In other words, reality may be understood as consisting of different layers. At bottom is the physical, tangible social world. On top is the interpretation of the world, enriched by concepts that help individuals to understand and navigate through the social world.

4.2.2 ASSUMPTIONS ABOUT HUMAN NATURE AND INTERESTS

A second group of paradigmatic ground assumptions relate to human nature. These centre around the role and level of autonomy ascribed to individuals in shaping the social world (Burrell & Morgan, 1979; Morgan & Smircich, 1980). One view (referred to as "determinism") is that social activity is largely influenced by contextual factors, and that individual actors play a rather passive, compliant role. This view also holds that individuals are largely deprived of the opportunity to actively influence the social setting to their advantage – they are more or less at its mercy (Burrell & Morgan, 1979). A contrary position (referred to as "voluntarism") holds that at least some power lies in the hands of people, who have some latitude in shaping the parameters of social reality and some choice in advancing their lives in congruence with their personal goals (Burrell & Morgan, 1979). Burrell and Morgan (1979) note that researchers may adopt either one of these positions or one in between. I subscribe to an intermediary position, since I assume that people have some liberty in shaping the socio-technological environment and can exercise choice in selecting goals and ways of achieving them. However, this socio-technical environment, at the same time, conditions the choices available to actors (i.e., there is some path-dependency in the evolution of the socio-technical environment). I further assume that individuals are intrinsically goal-oriented (i.e., pursuing individual and social goals) and act and behave in a boundedly rational manner (Simon, 1976).

4.2.3 EPISTEMOLOGY

The third set of assumptions concern epistemology, and are, according to Burrell and Morgan (1979)

> about the grounds of knowledge – about how one might begin to understand the world and communicate this as knowledge to fellow human beings. These assumptions entail ideas, for example, about what forms of knowledge can be obtained, and how one can sort out what is to be regarded as 'true' from what is to be regarded as 'false'…. It is predicated upon a view of the nature of knowledge itself: whether, for example, it is possible to identify and communicate the nature of knowledge as being hard, real and capable of being transmitted in tangible form, or whether 'knowledge' is of a softer, more subjective, spiritual or even transcendental kind, based on experience and insight of a unique and essentially personal

> nature. The epistemological assumptions in these instances determine extreme positions on the issue of whether knowledge is something which can be acquired on the one hand, or is something which has to be personally experienced on the other. (pp. 1–2)

Conceptions about epistemology can be mapped onto an objective-subjective dimension, reflecting the controversies between advocates and opponents of positivism in social science (Morgan & Smircich, 1980). Burrell and Morgan (1979, p. 5) use the label positivism to describe epistemologies which "seek to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements". These epistemologies largely adopt the doctrines of natural science to establish truth by proving or disproving hypotheses. In contrast to positivism stand epistemologies that seek to understand the phenomena of the social world from a relativistic perspective by considering the idiosyncratic frames of reference of the actors involved, and thus dismissing the idea that detached observations and positivistic methods can be used to establish truth (Burrell & Morgan, 1979).

Easterby-Smith et al. (2002) identify social constructionism (which roughly corresponds to the position held by the opponents of positivism), relativism (which takes an intermediary position) and positivism as prominent epistemologies in management research. Based on my ontological position, outlined above, I assume that the social world as individuals perceive it has both tangible, objective dimensions, which are potentially accessible to all of us, as well as more subjective dimensions. Knowledge may thus be understood as a function different viewpoints.

4.2.4 ASSUMPTIONS ABOUT METHODOLOGY

Closely intertwined with the considerations of ontology, epistemology, and human nature are assumptions about methodology, that is, about the suitability of approaches for knowledge creation (Burrell & Morgan, 1979; Morgan & Smircich, 1980). There are two broad classes of approaches. One is the "idiographic" approach, closely associated with an epistemological stance of social constructivism; this approach attempts to develop knowledge by studying how

> the individual creates, modifies and interprets the world in which he or she finds himself. The emphasis in extreme cases tends to be placed upon the explanation and understanding of what is unique and particular to the individual rather than of what is general and universal. This approach questions whether there exists an external reality worthy of study. In methodological terms it is an approach which emphasises the relativistic nature of the social world to such an extent that it may be perceived as 'anti- scientific' by

> reference to the ground rules commonly applied in the natural sciences. (Burrell & Morgan, 1979, p. 3)

Another approach, closely linked to the epistemology of positivism, is the "nomothetic" approach, which seeks to gain knowledge about the social world by studying the

> relationships and regularities between the various elements which it comprises. The concern, therefore, is with the identification and definition of these elements and with the discovery of ways in which these relationships can be expressed. The methodological issues of importance are thus the concepts themselves, their measurement and the identification of underlying themes. This perspective expresses itself most forcefully in a search for universal laws which explain and govern the reality which is being observed. (Burrell & Morgan, 1979, p. 3)

As noted in the previous section, I adopt an epistemological position of relativism. I assume that a pure nomothetic approach is limited to exploring firm-level sources of competitive advantage. One reason is that some of the relevant concepts are assumed to be socially constructed, or to have subjective dimensions that are difficult to capture. To uncover these concepts, and to develop an understanding of what they mean to individuals, an idiographic approach might be useful. However, an ideal approach for understanding the sources of competitive advantage would blend features of the nomothetic approach (concepts, themes) and the idiographic approach (perspectives, meanings).

4.2.5 SUMMARY

Table 3 below provides an overview of the key assumptions and implications with respect to the tree main paradigms in management research.

Table 3: Basic paradigms in management research

Issue	Positivism	Relativism	Social constructionism
Ontology	Representational-ism	Relativism	Nominalism
a) Truth	Is determined through verification of predictions	Requires consensus between different viewpoints	Depends on who establishes it
b) Facts	Are concrete, but cannot be accessed directly	Depend on the viewpoint of the observer	Are all human creations
Epistemology	Positivism	Relativism	Social constructionism
Human nature/ interests	Should be irrelevant	May influence research	Are the main driver of science
Methodological implications			
a) Aims	Discovery	Exposure	Invention
b) Starting points	Hypotheses	Suppositions	Meanings
c) Designs	Experiment	Triangulation	Reflexivity
d) Techniques	Measurement	Survey	Conversation
e) Analysis/ interpretation	Verification/ falsification	Probability	Sense-making
f) Outcomes	Causality	Correlation	Understanding

Note: Based on Easterby-Smith et al. (2002, pp. 33–34)

These paradigms should not be understood as rigid frameworks for conceptualizing and conducting research; indeed, many variations are possible (Creswell, 2003; Easterby-Smith et al., 2002; Girod-Séville & Perret, 2001; Morgan & Smircich, 1980). Easterby Smith et al. (2002), for example, note that it is not uncommon for researchers to selectively use or combine elements of different paradigms to design and operationalize their research. As they note, combining techniques (e.g., qualitative and quantitative), for example, is one way that researchers in practice use to develop novel insights about a phenomenon or subject of interest.

In sum, my assumptions and viewpoints with regard to ontology, human nature and interests, epistemology, and methodology most closely match the relativist paradigm.

4.3 RESEARCH STRATEGY

Another integral part of the research methodology is the research strategy (Creswell, 2003), which may be understood as “a bundle of skills, assumptions, and practices that

the researcher employs as he or she moves from the paradigm to the empirical world" (Denzin & Lincoln, 2005b, p. 25). There is an array of research strategies that can be applied in management research, including the case method, grounded theory, action research, ethnography, narrative methods, and surveying (Easterby-Smith et al., 2002). For the selection of an appropriate research strategy, a number of criteria have been proposed, including (1) research purpose, (2) type of research question, (3) relevance of history, (4) relevance of manageable study parameters, and (5) theoretical perspective (Creswell, 2003; Ghauri & Grønhaug, 2005; Yin, 2003).

The purpose of this research is to increase our understanding of firm-level sources of sustained competitive advantage (see Chapter 1). The RBV literature suggests that competitive advantage stems from heterogeneous firm resources (e.g., Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). Consequently, focus should in RBV research be placed on understanding the inner workings and specific characteristics of those firms that clearly stand out from the large mass of ordinarily performing firms (Aharoni, 1993; Barney & Clark, 2007). One promising way to explore these characteristics and examine their consequences on firm performance is by gathering data directly at their source, that is, within organizations – for example, by interviewing organizational members (Rouse & Daellenbach, 1999). The case study method (Stake, 2006; Yin, 2003) as well as grounded theory (Corbin & Strauss, 2008; Glaser & Strauss, 1967), then, appear suited to the purposes of this study.

Another issue to consider in the selection of research strategy is the type of research that will be used in a study to produce the desired research outcomes. Yin (2003) distinguishes between "who", "what", "where", "how" and "why" type questions. The present study seeks to answer the question: *"What firm resources and resource characteristics are most closely associated with sustained competitive advantage among a small sample of high-performing firms?"* Additional insights may also be gained by asking "how" or "why" these firm resources contribute to sustained competitive advantage. However, this study focuses on what-type questions, since knowing what these firm resources actually are may help (1) to develop and refine the constructs to test resource-based theory (Michalisin et al., 1997), and (2) to illuminate some of the as of yet unexplained variability in firm performance (see e.g., Hawawini et al., 2003; McGahan & Porter, 1997; Rumelt, 1991; Schmalensee, 1985). What-type questions are associated with exploratory studies, which may use a variety of research strategies (Stebbins, 2001; Yin, 2003). However, not all of the above-mentioned strategies are equally well suited to

exploring the origins of competitive advantage at the required level of depth. Again, the case study method and grounded theory appear well suited to fulfilling these requirements: both allow the collection of rich and detailed data, and hence both will be considered possible options for the current study.

Another key criterion refers to the time dimension of the research data (Yin, 2003). Depending on a study's research question, data from different time periods may be required. Strategies like archival analysis may be used for research questions dealing with issues in the past, while strategies like case studies and surveys can be used for research questions dealing with more current issues (Robson, 1993). The present study seeks to explore the sources of competitive advantage from a contemporary perspective. The case study method and grounded theory are both well suited to obtaining and analysing such qualitative data (Yin, 2003).

A further criterion relates to the ability to keep study parameters constant or to influence them in some way (Yin, 2003). The present research seeks to explore sources of competitive advantage without shaping or controlling what people do or what events occur. This aspect excludes research strategies of a more experimental type. Although the case study may be used for experimental designs (Yin, 2003), it is also well suited for use in non-experimental designs (Stake, 2006). Grounded theory, on the other hand, follows a theoretical sampling logic that can be considered to some extent experimental, but that does not require the manipulation of parameters relevant to the study to gather evidence (see Corbin & Strauss, 2008). Based on this consideration, both the case method and grounded theory are viable options for the present study.

A final criterion is the theoretical perspective (Creswell, 2003). A specific feature of the grounded theory approach is that it deliberately avoids specifying theoretical concepts and propositions at the outset of an inquiry (Corbin & Strauss, 2008; Glaser & Strauss, 1967). The present study, however, seeks rather to extend an existing theory than to develop an entirely new theory. This means that the analysis focuses on individual firms, purposefully sampled, that are conceptualized as individual cases for comparison. From this point of view, the most suitable research strategy for the present study is the case study method.

The literature also indicates that the case study method has been successfully applied as a research strategy in resource-based strategic management research (e.g., Amit & Zott, 2001; Argyres, 1996; Bourgeois & Eisenhardt, 1988; Collis, 1991; Frynas, Mellahi, &

Pigman, 2006; Hall, 1993; Henderson & Cockburn, 1994; Jenkins & Floyd, 2001; Leonard-Barton, 1992; Mascarenhas, Baveja, & Jamil, 1998; Moingeon, Ramanantsoa, Métais, & Orton, 1998; Penrose, 1960; Ruiz-Navarro, 1998). The implementation of the case study method in the present research will be discussed in detail in the research design chapter (Chapter 5).

4.4 METHODS FOR COLLECTING AND ANALYSING DATA

Another building block of the methodological framework concerns the methods for collecting and analysing data (Creswell, 2003; Easterby-Smith et al., 2002). Different typologies have been used in the literature to categorize such methods: the categories proposed include data collection and data analysis methods (Saunders et al., 2003); positivist and constructionist methods (Easterby-Smith et al., 2002); and quantitative, qualitative, and mixed research methods (Creswell, 2003).

Some methods can be attributed to a single category, while others can be configured for use in different ways and hence be attributed to multiple categories. For example, interviewing, a method widely used in qualitative research, may also be used, albeit in a different form, for quantitative research (Robson, 1993). To identify and select suitable research methods for a given research situation, Creswell (2003) recommends adopting an eclectic approach. Maxwell (2005) suggests that methods in qualitative research can be fully specified in advance, though this is not a requirement: they can also be specified and modified during the course of the study. A fairly unstructured approach may be indicated, for example, if the research situation is subject to changes or otherwise difficult to predict. Maxwell (2005) points out that in qualitative research the principal research device for gathering and making sense of data is the researcher, not the individual techniques, suggesting that qualitative research should be driven by situational learning opportunities rather than by a set of rigid methods and procedures.

Methods may be selected on a variety of grounds, including philosophical assumptions, the nature of research question, fit with research strategy, associated practicalities such as time and cost involved, skills and familiarity, and desired or required level of structure (Creswell, 2003; Easterby-Smith et al., 2002; Morgan & Smircich, 1980). The following sections provide an overview of main data collection and analysis methods and a brief assessment of their suitability for the present research.

4.4.1 DATA COLLECTION

As discussed in the previous section, this study adopts the case study method as a research strategy. In case study research, typical data collection methods include interviewing, observation, as well as gathering documentary evidence (Yin, 2003). Table 4 provides an overview of these methods, indicating their strengths, weaknesses, and relative suitability for the present research.

Table 4: Data collection methods: main strengths and limitations, and suitability for the present study

Data collection method	Main strengths (+) and limitations (–) for exploring sources of sustained competitive advantage	Suitability
Interviewing	+ Efficiency – targeted directly on case study topic; may cover broad range of themes + Quality – access to unrecorded insights, experiences + Flexibility – interactive exploration of subjects; number, type, order, and logic of question can be matched to situation and needs – Risk of reactivity (reflexivity) bias – interview situation influences responses in interviews – Risk of response bias – e.g., inaccuracies due to poor recall, articulation difficulties (e.g., tacit knowledge), or ambiguities in research questions	High
Gathering documentary evidence	+ Exactness – may provide exact references and details on past events + Coverage – long span of time, many events, and many settings – Relevance – does not cover undocumented sources of competitive advantage; access may be constrained; available data may be incomplete and fragmented; overall retrievability may be low – Rigidity – interactive exploration of subject matter not possible – Risk of reporting bias – unknown bias of author – Risk of selection bias – e.g., due to potential access constraints or due to incompleteness or fragmentation of data	Low
Observation	+ Behavioural data – covers events in real time; provides insights into the behaviour of individuals and groups – Relevance of data – study does not focus on real-time events nor on social behaviour	Low

	– Efficiency – time-consuming – Risk of reactivity – influence of researcher on settings and participants – Risk of selectivity bias – access constraints and other constraints to covering relevant events	

Note: Table includes material taken from Brenner et al. (1985), Creswell (2003), Easterby-Smith et al. (2002), Glesne (1999), Maxwell (2005), Robson (1993), and Yin (2003).

Based on the above analysis, interviewing was considered the most suitable method for collecting the required evidence and for exploring the phenomenon of competitive advantage as perceived by key actors within the firm. Hence, the type of data collected is qualitative, which has important implications for the choice of analytical methods.

4.4.2 DATA ANALYSIS

Analysing qualitative data can involve a number of activities including reading, categorizing, interpreting, relating, and synthesizing data (Maxwell, 2005). To analyse qualitative data in a multicase study, a number of methods can be used (Yin, 2003); these may be classified into inductive, deductive, and mixed methods. Inductive methods include analytic induction (Yin, 1994; Johnson, 1998), "cross-case pattern search" (Eisenhardt, 1989), grounded theory (Corbin & Strauss, 2008; Glaser & Strauss, 1967), "merging findings across cases" (Stake, 2006), and narrative analysis (Coffey and Atkinson, 1996). Deductive methods, on the other hand, include "explanation building" (Yin, 1994), and "pattern matching" (Yin, 1994). Finally, mixed methods include "data display and analysis" (Miles & Huberman, 1994), and template analysis (King, 1998).

The purpose of this study is to explore sources of sustained competitive advantage to extend and refine existing resource-based theory. Thus, there are two basic requirements for choosing an analytical method for this study. First, it needs to allow the inclusion of prior theoretical concepts. Second, it needs to permit the exploration of data and the inductive development of concepts, categories and theoretical propositions. Table 5 provides an overview of the major analytical methods with an indication of their relative suitability to exploring the sources of sustained competitive advantage.

Table 5: Data analysis methods: type, main strengths and limitations, and suitability for the present study

Analytical method	Type	Main strengths (+) and limitations (–) for exploring sources of sustained competitive advantage	Suitability
Merging findings across cases (Stake, 2006)	I	+ Inductive, exploratory process + Focus on main evidence to answer research question + Structured, but flexible approach – Use of prior theory not explicitly addressed – Coding procedures not discussed in detail, author refers to other methodical texts	High
Grounded theory (Corbin & Strauss, 2008; Glaser & Strauss, 1967)	I	+ Inductive, exploratory process + Supports the development theoretical propositions + Structured and systematic + Takes concepts as the primary unit of analysis – Prior specification of theoretical concepts (categories, codes) not foreseen – Time consuming – Sequential sampling approach	Medium
Data display and analysis (Miles & Huberman, 1994)	I/D	+ Supports an exploratory process to some extent + Provides a collection of adaptable tools and practices + Structured and well explained approach – Flexibility – Strong focus on explanatory aspects (variables, relationships) – Difficult to apply for large numbers of concepts – Clustering data, refining categories, and attaching case evidence to categories rather difficult and time-consuming with displays	Medium

Cross-case pattern search (Eisenhardt, 1989)	I	+ Supports an exploratory process to some extent + Provides well explained tactics for analysing data + Structured and well explained approach + Allows for inductively generated theories – Designed for explanatory research, strong focus on building constructs, developing construct measures, and verifying relationships – Designed for content rather than for grounded analysis – Difficult to apply for large numbers of concepts – Coding not discussed in detail, refers to other methodical texts	Medium
Template analysis (King, 1998)	I	+ Supports exploratory process + Allows for inductively generated theoretical proposition + Allows the use of predetermined codes – Less structured than grounded theory or data display and analysis	Medium
Analytic induction (Yin, 1994; Johnson, 1998)	I	+ Supports an inductive process – No integration of prior theoretical concepts – Seeks to explore a few explanations for a phenomenon that are subsequently tested with purposively sampled cases – Presumes a sequential approach – Not designed to explore a broad range of possible sources of competitive advantage – Highly time consuming	Low
Narrative analysis (Coffey and Atkinson, 1996)	I	– Focuses on events rather than on concepts	Low
Pattern matching (Yin, 1994)	D	– Deductive, attempts to confirm rather than to generate theoretical propositions	Low
Explanation building (Yin, 1994)	D	– Deductive, designed to refine and empirically ground theoretical proposition – Presumes a sequential approach – Is rather explanatory than exploratory	Low

The method *merging findings across cases* described by Stake (2006) matches most closely the requirements of this exploratory multicase study research, and will consequently be used as the primary method for analysing the data. However, I complement this method, where appropriate, with the techniques and tactics described for *grounded theory* (Corbin & Strauss, 2008; Glaser & Strauss, 1967), *data analysis and display* (Miles & Huberman, 1994), and *cross-case pattern search* (Eisenhardt, 1989). The configuration and use of the data analysis method in this study will be discussed in detail in the research design chapter (Chapter 5).

4.5 RESEARCH APPROACH

A research approach may be conceived as a generic path to generating knowledge, or, as Creswell (2003) portrays it, as a broad conceptualization of a research paradigm and methodological choices to address a research problem. The typologies used to classify research approaches are similar to the ones used for research methods: they include quantitative and qualitative (Glaser & Strauss, 1967; Morgan & Smircich, 1980), deductive and inductive (Ghauri & Grønhaug, 2005), positivist, anti-positivist, and pragmatist (Powell, 2001), objective and subjective (Burrell & Morgan, 1979), analytical and systemic (Miles & Huberman, 1994), and quantitative, qualitative and mixed methods approaches (Creswell, 2003). Perhaps the most widely used typology to classify approaches is the division into quantitative and qualitative, which appears to reflect the philosophical dichotomy in social science between positivism and social constructionism (see Denzin & Lincoln, 2005a; Easterby-Smith et al., 2002).

The literature suggest a number of criteria for selecting a research approach. One is its relative suitability to addressing a given research problem (Allard-Poesi & Maréchal, 2001; Creswell, 2003; Ghauri & Grønhaug, 2005; Maxwell, 2005). Other criteria noted include the skills and familiarity of the researcher with a given approach as well as the preferences and expectations of prospective readers (Creswell, 2003).

As discussed in Chapter 1, the current situation is that there is only a limited understanding of the causes of competitive advantage. Thus, there seems to be enormous potential in research that adopts an inductive, qualitative, and exploratory approach to advancing our understanding about the resources and capabilities conferring competitive advantage or superior performance (see Rouse & Daellenbach, 1999).

The second evaluation point regarding skills and experience with a particular approach is not applicable in the present case. I have had some basic training in qualitative and quantitative research methods, but have not gained practical experience with either of them prior to the present research to a degree that could justify choosing one approach over another.

And finally, the dissertation is written for a variety of audiences, including external examiners, supervisors, study participants, and interested RBV scholars. I expect that these individuals by and large hold an epistemological position that is similar to, or at least not in conflict with, the epistemological position I adopted for this research (see Section 4.2.3). Based on these considerations, I adopted for this research an inductive, exploratory, and qualitative approach comprising the following main steps: (1) conducting a literature review, (2) developing a conceptual framework for investigation, (3) conducting a pilot, (4) collecting qualitative data, (5) analysing the data, (6) developing theoretical propositions, and (7) writing. This approach is also consistent with the chosen research paradigm, research strategy, and research methods.

4.6 CHAPTER CONCLUSION

This chapter outlined the research methodology for this study. The chapter commenced with an overview of the methodological framework used in this research. Another section described the research paradigm adopted for the study, comprising ontological assumptions, assumptions about human nature and interests, epistemological assumptions, and methodological assumptions. A further section concentrated on the research strategy. Based on an evaluation of different strategies, the case study method has been selected as the most suitable for the present study. The next section concentrated on the methods for collecting and analysing data. Based on an assessment of different options, interviewing was chosen as a method for data collection, and merging findings across cases as the primary method for analysing and interpreting data. Another section concentrated on the research approach, which can be described as an inductive, exploratory, and qualitative approach comprising seven main steps. The next chapter, research design, describes in detail the operationalization of these choices.

5 RESEARCH DESIGN

5.1 CHAPTER INTRODUCTION

The final building block of the research methodology is the research design (Creswell, 2003), which specifies the logic, activities, techniques, instruments, and other required elements to produce valid research outcomes (Royer & Zarlowski, 2001). The research design is informed by the researcher's orientation, preferences, and chosen research approach (Creswell, 2003). It can be defined at the outset of study, typically before the data collection phase starts, and modified, if necessary, during the study (Yin, 2003). I constructed the research design after having formulated the main research question.

As discussed in Chapter 4, I adopted for the present study an inductive, qualitative research approach. The chosen research strategy is the case study method. Thus, the basic research design in this study is an exploratory multicase study.

I used Eisenhardt's (1989) proposed design for multicase studies as a template and modified it according to the needs of this study. I began by considering what kind of research output would be needed to address the research question, and then worked "backwards" to define the process steps, activities, and work products (see Royer & Zarlowski, 2001). Next, I reviewed the techniques, tactics, and instruments that have been used for qualitative data analysis in other qualitative research projects (e.g., Miles & Huberman, 1994). I selected those that were applicable to this study, and adapted them as necessary. Some parts of the research design were revised during the data analysis stage to address limitations discovered in the initially chosen design regarding flexibility, transparency, and the ability to maintain a link between data and concepts. Thus, to better accommodate the needs of this exploratory multicase study I integrated additional approaches and techniques suggested by Stake (2006), Stebbins (2001), Glaser and Strauss (1967), Corbin and Strauss (2008), and used the concepts proposed by Miles and Huberman (1994) and Eisenhardt (1989) complementarily.

Table 6 provides a process-oriented overview of the research design. In the following, I will describe in greater detail the research design as finally implemented.

Table 6: Proposed research design: steps and main activities

Step	Main activity
Definitions and preparations	– Define study purpose and assumptions – Define a priori concepts – Define research question(s) – Describe researcher's role, researcher effects, and ethical issues – Define unit of analysis and basic case study design – Develop case study protocol and interview guide – Conduct pilot study – Select cases – Select respondents
Data collection	– Conduct interviews
Data analysis	– Transcribe and annotate interviews – Create contact summary sheets – Discover and develop concepts through coding – Conduct within-case analysis – Conduct cross-case analysis – Develop integrative diagrams and memos
Review of the literature relevant to study findings	– Compare with conflicting/similar literature; concatenate findings
Development of propositions and reaching closure	– Develop assertions with respect to principal study question – Link case evidence to assertions – Reach closure
Verification	– Verify validity – Verify generalizability – Verify reliability
Report	– Write up findings

5.2 DEFINITIONS AND PREPARATIONS

Before field work can begin, a number preparations have to be made, from defining the study's purpose to selecting study respondents (see Eisenhardt, 1989; Yin, 2003). In the following, these activities are described in detail.

5.2.1 STUDY PURPOSE AND ASSUMPTIONS

The purpose of this study is to explore firm level sources of competitive advantage. I assume that some firms perform better than others because they have strategically relevant resources and capabilities that are difficult for competing firms to imitate. Furthermore, I assume that these strategic resources can be intangible and thus difficult

to observe. Although a firm's internal documents, such as strategy papers and business plans, may mention some of its strategic resources, these documents do not necessarily reveal the characteristics of these resources. Furthermore, it is reasonable to surmise that relevant information about strategic resources is not stored in publicly available documents (e.g., annual reports) since such information could potentially erode the basis of a competitive advantage if it permits competitors to imitate all resources underlying a successful strategy. Consequently, the study focusses exclusively on managers as a primary source of data.

5.2.2 USE OF CONCEPTS DEFINED A PRIORI

This study seeks to contribute to the RBV literature on competitive advantage and consequently builds on existing RBV concepts which have been discussed in Chapter 3. The conceptual framework forms an integral part of the research design, and will be used as follows. First, it provides an orientation into and a theoretical lens for this study. Second, it forms a crucial information source in the development of the research question. Third, it serves as an input in the development of the semi-structured interview guide. Fourth, it indicates possible conceptual categories or conceptual properties to develop an initial coding list, which serves as a device for the initial organization of data collected. This list, however, is not used for the verification of extant concepts or hypotheses. Finally, it helps to integrate the study findings with the extant literature. In particular, the study draws on the RBV logic to evaluate the capacity of identified resources and capabilities to confer a long-lasting competitive advantage.

5.2.3 DEFINING THE RESEARCH QUESTION

Defining the research question is a central task in designing a multicase study (Eisenhardt, 1989; Yin, 2003). In qualitative research, research questions are typically drafted during the development of the research design and further refined in the course of the research (Creswell, 2003). For multicase study research, one or more research questions might be developed to inquire into a research subject of interest (Stake, 2006). Creswell (2003) recommends using at least one principal question that is generic enough to capture the relevant dimensions of a research subject, followed by one or more subordinate questions that focus on specific aspects of interest. He further notes that the formulation of the research question should reflect the chosen research strategy. As discussed in Chapter 4, the chosen research strategy for this study is the case study method and the focus is placed on "what" type questions (see Yin, 2003). For this study,

I used one principal question and seven subquestions (references in brackets refer to the questions in the interview guide):

What firm resources and resource characteristics are most closely associated with sustained competitive advantage among a small sample of high-performing firms?

a) What are the reasons for superior firm performance (relative to close competitors)? (Q1-3, Q5-7)

b) What hinders close competitors from attaining a similar level of firm performance? (Q4)

c) What are the main characteristics of markets and the competitive environment? (Q8-Q19)

d) What are the main distinctive benefits offered to customers (relative to close competitors)? (Q20-Q28)

e) What is the relative importance of generic resource categories for sustained competitive advantage? (Q29-Q51)

f) What are the conceptual linkages between the main strategic resources (identified by the study) and sustained competitive advantage?

g) What organizational areas or resource categories need to be explored in more detail to better understand the sources of sustained competitive advantage? (Q29-Q51).

5.2.4 RESEARCHER'S ROLE, RESEARCHER EFFECTS, AND ETHICAL ISSUES

Qualitative research involves some level of interaction between the researcher, the research setting, and research subjects (Creswell, 2003). As already alluded to in Chapter 4, this exploratory case study collects data from multiple cases and respondents through face-to-face interviewing. This involves some level of social interaction with study participants, which can be divided into interactions before, during, and after the interview. Table 7 outlines the researcher's responsibilities, the interaction mode, and the issues to consider in each of these three phases. I adopted the role of a moderately involved researcher, i.e., a researcher who is not completely detached from the setting. The main interaction happens during the face-to-face interview. The interviews are nonintrusive in the sense that they have no direct effect on the phenomenon studied, that is, competitive advantage. However, there are still potential threats such as "researcher bias" and "reactivity" that could lead to invalid conclusions and that consequently should be accounted for (Maxwell, 2005; Miles & Huberman, 1994; Stebbins, 2001). The design

of research also involves a consideration of ethical issues involved in data collection, data analysis, and reporting and using study results (Creswell, 2003). The key issue to consider here is that the research topic concerns competitively sensitive data (i.e., sources of competitive advantage). The implication for the design of the study is that data will be fully anonymized in order to protect the interests of participating firms (cases) and participating persons (respondents). For a further discussion of this issue see also Chapter 6, Section 6.2.

Table 7: Researcher's role: phases, responsibilities, interaction mode, and issues

Phase	Responsibilities	Interaction	Issues
Pre-interview	– Sampling of cases and respondents – Contacting target candidates – Generating interest in study participation – Negotiating access – Scheduling interviews – Providing the interview guide on request	– Telephone, email	
Interview	– Developing rapport and trust – Maintaining an open atmosphere – Explaining interview schedule – Conducting interview in accordance with case study protocol/interview guide – Adhering to ethics	– Direct, one-to-one contact at the work location of respondents	– Ethics: confidentiality – Researcher bias – Reflectivity – Power relationship
Post-interview	– Contacting respondents for clarifications – Data analysis, interpretation – Reporting results if desired	– Telephone, email	– Ethics: confidentiality – Researcher bias – Reflexivity

5.2.5 Defining the unit of analysis and basic case study design

A multicase study may use one or more units of analysis that define the boundaries of the case (Yin, 2003). RBV scholars contend that the firm's resources form the appropriate unit of analysis for developing and testing the resource based theory (Barney, 1986b; Rumelt, 1984; Wernerfelt, 1984), and, following their counsel, I use firm resources as the unit of analysis. However, Yin (2003) suggests that the unit of analysis should be further confined by one or more "propositions" to focus research efforts on data units that are relevant for addressing the research question(s). In this study, I have endeavoured to ensure a focus on relevant data by using the proposition that strategic resources are more firmly associated with superior firm performance than other types of firm resources. Strategic resources are in essence competitive strengths relative to close competitors – more specifically, strengths that are difficult or costly to imitate or substitute. For a definition of strategic resources, see Chapter 3.

Different basic case study designs can be selected, depending on the number of cases and the number of units of analysis. This study uses multiple cases and a single unit of analysis, a design that is called holistic multicase design (Yin, 2003).

5.2.6 Developing a case study protocol and interview guide

An important part of a multicase research design, the case study protocol provides instructions and devices for the collection and reporting of data (Yin, 2003). The protocol serves several purposes, including attaining some level of consistency and repeatability in gathering and reporting data, assisting the researcher in performing his or her tasks, and focusing research efforts on answering the main research questions (Yin, 2003). I divided the case study protocol into two documents: a general case study protocol and an interview guide. The case study protocol comprises the following sections: purpose of the study, reference to the conceptual framework, case study questions, field procedures, and reporting guidelines. The case study protocol is provided in Appendix III.

I developed a semi-structured interview guide to collect data from case respondents. This included a set of closed and open-ended questions, thematically ordered. I derived the interview questions and the protocol structure from the conceptual framework (Chapter 3), the research question (Section 5.2.3), and previous empirical RBV studies on firm performance, including Galbreath (2004), and Spanos and Lioukas (2001), Hall (1993), Aaker (1989), and Fahy (2000). Then, I reviewed the interview guide with the

supervisors of the study and revised it through several iterations. Thereafter, I translated the interview guide into German. In linguistic studies as well as in other qualitative studies requiring a specific level of precision in translation, a professional translation of the interview guide might have been necessary to ensure translation reliability. Some level of translation reliability may also be required in studies that collect data in several languages, particularly those involving multiple researchers (Easterby-Smith et al., 2002). However, in the present study such measures seemed unnecessary for two reasons. First, exploratory studies in social sciences rarely require a high level of linguistic precision, since the focus is on concepts and not on individual words (Stebbins, 2001). Second, the study involved neither multiple researchers nor interviews in multiple languages; all interviews were conducted in German (a point that will be further discussed in the section on selecting respondents.)

Before progressing to the data collection stage, I piloted the case study protocol and the interview guide with three pilot cases, and revised both iteratively.

5.2.7 CONDUCTING A PILOT STUDY

Another important part of the research design is the pilot case study. A pilot is conducted prior to the data collection stage and can serve several purposes, including (1) testing and revising case study protocol and interview guide, and (2) refining the research design (Yin, 2003). A pilot case study may also deviate from the main study: it may, for example, cover a broader spectrum of issues and be less specific than the main study (Yin, 2003).

The pilot case sample may consists of one or more cases and be selected on criteria such as “convenience”, “access” and “geographic proximity” (Yin, 2003, p. 79). I used a sample of three firms and three respondents, which was sufficient to test and revise the case study protocol and the interview guide in three iterations. I sampled pilot cases on three criteria: theoretical relevance, accessibility of respondents, and geographical proximity.

The sample included one large company (P1) and two smaller companies (P2, P3) with leading positions in their respective product markets (Table 8). P1 is a firm of a larger conglomerate in the realm luxury goods, P2 is a broker for investment credits, and P3 is an internet start-up company operating an e-business platform. In P1, the respondent was a senior manager of a larger business unit; in P2, the founder and member of the management team; and in P3, the CEO.

Table 8: Pilot case study members and respondents

Case	Business	Firm size	Respondent
P1	Retail	Large	1 Senior manager
P2	Financial services	Small	1 Partner
P3	Internet	Small	1 CEO

I interviewed the respondents at their place of work or at a location of their choice. I audio-recorded the conversation, took field notes, and partially transcribed the audio records to get a feel for the subsequent data analysis stage. Based on the field notes, I developed a report in the form of a memorandum, indicating lessons learned and modifications implemented with regard to the case study protocol, interview guide, and the research design (Table 9).

Table 9: Pilot case studies: key lessons learned and modifications made

Case	Lessons learned	Modifications made
P1	– Questionnaire too long – Questions partially too generic, too detailed, or too difficult – Sequence of interview topics not ideal – Funnel mechanism to direct discussion towards resource differentials missing – Level of interest varies with topic – Voice quality of audio tape too low	– Study questions revised – Structure and content of interview guide refined – Audio recording equipment replaced
P2	– Some questions not relevant to the financial service industry – Formulation of some questions ambiguous – Transcription extremely time consuming – Too much time spent on questions related to competitive environment	– Interview questions reviewed and where necessary replaced with more concise formulations – Interview procedure changed (selective use of questions applicable to all industries/businesses)
P3	– Time constraints – Funnel mechanism too complex	– Study questions revised – Structure to funnel questions in interview schedule improved – Sections of the interview guide amended with study objectives

5.2.8 SELECTING CASES

The selection of cases is critical in multicase studies (Eisenhardt, 1989). Cases may be selected with different objectives in mind: a particular case may be selected in order to investigate a phenomenon of interest in depth in diverse contexts (Stake, 2006; Stebbins, 2001), "to replicate previous cases or extend emergent theory, or … to fill theoretical categories and provide examples of polar types" (Eisenhardt, 1989, p. 537). The objective of the present exploratory multicase study is to explore the phenomenon of competitive advantage in depth and to generalize from the cases to a theoretical proposition rather than to a particular population (Stake, 2006).

In principle, two main sampling approaches may be considered: purposive sampling and theoretical sampling (Silverman & Marvasti, 2008). A purposive sampling approach uses criteria that characterize the situations in which the research phenomena can be studied (Silverman & Marvasti, 2008), while a theoretical sampling approach uses criteria that include one or more theoretically defined characteristics of the question to be studied (Eisenhardt, 1989; Glaser & Strauss, 1967). To explore sources of sustained competitive advantage in firms, I used a purposive sampling approach and selected cases at the outset of the data collection stage (see Stake, 2006).

In terms of sample size, Stake (2006) suggests that a sample of 4 to 10 cases typically provides the best value in terms of specificity, diversity, and manageability; this does not necessarily imply that numbers below or above that range should be avoided, as they may be perfectly justifiable in a particular research context. Yin (2003) points out that sample sizes in multicase studies following replication logic should reflect the level of certainty needed in the study. A prescription for determining the optimal number of cases, however, does not exist; rather, sample size is a question of judgment (Eisenhardt, 1989; Stebbins, 2001; Yin, 2003). Although larger sample sizes are generally preferred to increase the level of certainty (Yin, 2003), or to explore complex phenomena (Glesne, 1999), one must also consider that marginal net benefits can decrease with size (Yin, 2003). Eisenhardt (1989), too, recommends using a sample between 4 and 10 cases, which allows for the development of a convincing, empirically grounded theory, while limiting the risk of data overload. Considering the complexity of the phenomena under study and the limitations to manage a large set of cases, a sample size between 6 and 12 cases seemed ideal. I utilized eventually a theoretical sample of 11 cases.

Rouse and Daellenbach (1999, p. 492) suggest that untangling the sources of competitive advantage requires researchers to explore firm-level differences inside firms using a sample of "carefully selected firms". In general, cases could be selected on various criteria including theoretical relevance, accessibility, geographical proximity, and convenience (Stake, 2006). I used the following sampling criteria: (1) above average performance, (2) geographical proximity, (3) German-speaking respondents, and (4) accessibility.

(1) The first criterion, superior performance, is used as a proxy of competitive advantage. A firm is said to have a competitive advantage when "it is able to create more economic value than the marginal (breakeven) competitor in its product market." (Peteraf & Barney, 2003, p. 314). Since the value-creating ability of a firm is not a discrete or a tangible property of a firm, I used firm performance as an approximation.

Firm performance and competitive advantage are, however, not necessarily perfect correlates. In theory, it is possible that a firm with a competitive advantage demonstrates low firm performance, if stakeholders other than shareholders appropriate some or even all of the value created (Coff, 1999). Likewise, a firm may be profitable for other reasons than competitive advantage (Makadok, 2011). Thus, using performance as a proxy for competitive advantage has two implications. First, a firm may not be correctly identified as a valid case if its performance is low but it possesses a competitive advantage. Second, a firm may erroneously qualify as a valid case if it displays high performance, but the level of performance is due to factors unrelated to competitive advantage. Despite these special cases, my assumption was that in general, competitive advantage is closely related to firm performance, and performance indicators can be used to choose samples in which potential sources of competitive advantage can be explored in depth (see Rouse & Daellenbach, 1999).

A candidate list may be established by assessing firm performance over various time periods, say 3, 10, 20 or even 50 years. A relatively short assessment period seemed to offer a number of advantages over longer ones. One is that it does not discriminate against young firms. Another one is that it likely increases the chances of selecting cases that effectively possess a competitive advantage in the present. For example, a firm may have performed above-average over the last three years, but only average over a fifty-year period. Such a firm is still an interesting case to study. In contrast, a firm is expected to offer far less opportunities to explore sources of sustained competitive advantage if it performed above-average over a fifty-year period, but only average or even below-

average in the past three years. Thus, in developing a candidate list I focused on firms that indicated a relatively high performance in recent years.

First, I screened potential firms based on publicly available performance indicators – such as sales, Ebit, profit, and investment – over a three-year period from 2003 to 2005. Information sources included an annual publication about the performance of the largest 1,000 companies in Switzerland issued by the *Handelszeitung* (2004, 2005, 2006), as well as annual reports and other financial information provided on company websites. I then assessed each firm's relative performance in its sector and classified them into high, average, and low performers so as to establish a short list of high-performing firms that could be contacted to participate in the study.

In principle, a case sample may consist either of similar cases or of contrasting cases. Similar cases could be used to make literal replications, while contrasting cases could be used to make theoretical replications (Yin, 2003). Rouse and Daellenbach (1999), for example, suggest that a mixed sample of high-performing and low-performing firms could be used to contrast findings. Although a mixed sample may provide valuable insights, I argue that a sample of highly performing firms is more useful for exploring sources of competitive advantage for at least four reasons.

First, exploratory multicase studies rely on insightful "instances" of the phenomena of interest (i.e., source of competitive advantage) (Stake, 2006). It can be argued that low-performing firms are not such instances, and thus are less suitable for exploring sources of competitive advantage.

Second, contrasting high-performing firms with any arbitrarily selected low-performing firms cannot be expected to yield significant insight into competitive advantage. The classical definition of competitive advantage (e.g., Peteraf & Barney, 2003) would rather suggest that high-performing firms should be compared to marginal competitors of the same industry. However, relevant marginal competitors may be difficult to identify, even with the support of study respondents from high-performing firms. Furthermore, marginal competitors may be difficult to access as they could in some cases be located anywhere in the world.

Third, contrasting high-performing and low-performing firms would imply concentrating on a single industry, or possibly a few industries. This research sought to

explore sources of competitive advantage in a variety of contexts to increase the applicability of the study findings.

Fourth, selecting cases involving directly competing firms could also raise ethical issues. One needs to bear in mind that information about a firm's strategic competitive strengths is a matter of high confidentiality. Studies involving competing firms, at least in theory, pose the risk that respondents may be reluctant to share relevant information with the researcher. Thus, selecting competitively interdependent cases could both raise ethical issues and threaten the validity of the research. Therefore, the study used a sample of high-performing firms from different industries.

(2) The second sampling criterion concerned geographical proximity. The attribute "geographical location" may be used for a variety of reasons, including focusing the study on a population of cases in a particular geographical area, contrasting and comparing cases from different regions, or replicating the findings in one case setting in a geographically diverse case setting (see Eisenhardt, 1989). There are also more practical reasons to confine the cases to a geographical area, such as cost and logistics (Stake, 2006)

In this case study, I emphasized geographical proximity for two reasons. First, although some the broader RBV literature indicates that firms may possess location-based resources that give them an advantage over competing firms (e.g., Fahy & Smithee, 1999), for this study "geographic location" was, from a theoretical point of view, not a critical dimension for exploring the sources of competitive advantage. The final sample did, however, contain 9 Swiss firms and 2 foreign firms, thus providing some geographical diversity among cases.

Second, limiting the sample of firms to a radius of about 150 km from Zurich provided important benefits in terms of logistics. Visits to these research sites were possible by car or by public transportation within 1-2 hours and without overnight stays. Furthermore, concentrating on relatively nearby cases offered the opportunity to cover more cases within a given budget of time and money than would have been possible had the sample been more geographically dispersed. Thus, this study limited the sample to firms located within a radius of 150 km from Zurich for the pragmatic reasons of logistics and costs.

(3) The fourth criterion concerned the language of the respondents. This study confined the sample to firms with German-speaking respondents to keep the effort and complexity involved in collecting, processing, and analysing data within feasible bounds for a single dissertation project (see Easterby-Smith et al., 2002).

(4) The third sampling criterion concerned accessibility. In case study research, accessibility can be one of the most decisive factors for choosing a case sample (Stake, 2006).

I used the following procedure to choose a purposive sample. First, I did some desktop research regarding potential candidates using publicly available data sources. Second, I shortlisted potential cases based on the above criteria of competitive advantage and proximity. Third, I identified possible contact persons either from my personal network or by looking up persons in charge at the firm (typically the CEO) in corresponding publications. Fourth, I contacted the contact persons of shortlisted cases, typically per email, and asked them to participate. Firms either accepted the invitation or declined it; most who declined made reference to such reasons as limited time. Finally, if the response was positive, I negotiated access to the research site and to respondents and scheduled the first interviews.

In sum, I used a purposive sample of 11 cases of firms that shared the following characteristic: their firm performance was superior, they were located within a radius of about 150 km from Zurich, they had German-speaking respondents, and they agreed to participate in the study. The next subsection discusses the selection of respondents.

5.2.9 SELECTING RESPONDENTS

Qualitative multicase studies also involve within-case sampling, that is, deciding what data to collect from each case – for example, which persons to interview, which time periods to focus on, or which places to study (Miles & Huberman, 1994). One approach is theoretical sampling, which uses conceptual criteria derived, for example, from the study's conceptual framework, research questions, or emerging themes (Miles & Huberman, 1994). The sampling process in this study concentrated on respondents since the data was collected through interviewing (see Chapter 4). Within a case (firm) there are potentially many individuals from top management team members to shop floor employees at various locations who could contribute to the understanding of firm-level characteristics associated with competitive advantage.

Since it may be neither feasible nor meaningful to interview all these persons, I used the following criteria for the sample: (1) manager with involvement in the strategic management process, (2) possesses knowledge and experience, (3) is German-speaking, and (4) is available. The reasoning behind the first criterion was that managers with involvement in the strategic management process would be best able to identify and describe the firm-level differences (i.e., resources and capabilities) contributing to competitive advantage. The selection process of respondents aimed at top and senior managers. However, I used a flexible and pragmatic approach, that is, I weighted knowledge and expertise with regard to the study questions more strongly than the position held in the hierarchy. The second criterion, knowledge and experience, refers to the affinity of respondents with the subject matter to be explored. For example, if a first interview with the CEO indicated major competitive strengths in marketing, R&D, and human resource management, the subsequent sampling would concentrate on respondents with knowledge and experience in these areas in order to further explore these concepts and to saturate emergent conceptual categories. The third criterion, that the interviewee be German-speaking, was used for practical reasons. Conducting and analysing data in different languages can considerably increase the effort and complexity involved in a study (see Easterby-Smith et al., 2002). Thus, I limited the sample to respondents whom I could interview in German. The final criterion, availability, refers to the willingness and ability of respondent candidates to participate in the study.

Using the above-described theoretical sampling strategy, the selection of respondents followed a simple procedure: After the firm had confirmed their participation, I asked the contact person to propose suitable respondents for the first interviews. Then, I began conducting the interviews, typically commencing with the most senior person on the respondent list, and asking that respondent at the end of the interview to revise or extend the respondents list in the light of emerging concepts requiring further clarification. The study aimed at between two and three respondents per case. In total, twenty-six respondents were interviewed.

5.3 DATA COLLECTION

Case study research may use an array of methods to collect data, including interviewing, reviewing documents and archival records, and observation (Robson, 1993; Stake, 2006; Yin, 2003). As discussed in detail in Chapter 4, I selected the interview method to collect data from a set of carefully selected cases and respondents. The method is effective,

flexible and allows for the collection of detailed, contextually situated, and valid data (Denzin & Lincoln, 2005a; Easterby-Smith et al., 2002; Remenyi, Williams, Money, & Swartz, 1998; Saunders et al., 2003). An interview is in essence a social event in which the researcher conducts a purposive dialogue with an individual or a group of individuals to gain insight into a research subject of interest (Easterby-Smith et al., 2002). However, interviews can be designed in a number of ways (Creswell, 2003; Glesne, 1999). In what follows, I discuss in greater detail the design choices made and the actual procedure employed.

5.3.1 OBJECTIVE AND CHALLENGES

The primary goal of this study in terms of data collection is to gain deep insight into sources of competitive advantage from a managerial perspective. Collecting such data, however, poses a number of challenges. First, competitive advantage is a relatively broad subject. This implies that some sort of funnelling techniques should be applied to focus the research on those areas that are most closely associated with competitive advantages. Second, it is a competitively sensitive topic. It is thus crucial to achieve the necessary level of trust as well as a cooperative atmosphere before proceeding into detailed inquiries (Easterby-Smith et al., 2002; Fontana & Frey, 2008; Ghauri & Grønhaug, 2005; Glesne, 1999). An important element in building trust is the assurance that data will be treated with the necessary care and confidentiality (Ibert, Baumard, Donada, & Xuereb, 2001). Third, the time that respondents are able or willing to commit to the study may be limited and may also vary between respondents. This implies that the interview time should be used "efficiently" and that the interview schedule should provide some level of flexibility. Finally, although the study builds on concepts already developed in the RBV, there is a need for the researcher to maintain an open stance to explore sources of competitive advantage (for a discussion of philosophical assumptions underlying this research, see Chapter 4, Section 4.2).

5.3.2 INTERVIEW FORMAT (INTERVIEW TYPE, QUESTION TYPES, INDIVIDUAL VS. GROUP INTERVIEW, CHANNEL)

Interviews can be classified into three broad categories: unstructured (open-ended or deep interviews), semi-structured (focused interviews), and structured (survey-type interviews) (Creswell, 2003; Fontana & Frey, 2008; Ghauri & Grønhaug, 2005; Robson, 1993; Yin, 2003). Exploratory studies frequently use deep interviews with open-ended questions (Stebbins, 2001), which appear well suited for studies that are not based on prior theoretical concepts. However, for this study a semi-structure interview seemed

more appropriate. First, this study builds on existing concepts of the resource-based view, which provides a frame of reference for the interviews. Second, a certain degree of structure is considered instrumental for progressively focusing the enquiry on resource differentials between firms and their effects on competitive advantage. Third, the possible time constraints of respondents make it imperative that the interview be focused. Finally, a semi-structured interview is relatively flexible as it can comprise both open-ended and closed questions (Glesne, 1999). As indicated in the interview guide (Appendix IV), I used both types of questions. Closed questions were primarily used for funnelling the discussion into the topic of important resources associated with competitive advantage, while open-ended questions were used for exploring specific issues in more detail (see Creswell, 2003). The interview guide includes both retrospective and some prospective questions, and asks questions about facts (e.g., past turnover) as well as about matters that are more subjective in nature (e.g., opinion, perception, judgement, and personal insight).

A further aspect concerns the choice between individual and group interviews (Glesne, 1999; Ibert et al., 2001). In principle, both types would have been possible. However, I selected the individual interview for the following reasons. First, individual interviews support a theoretical sampling approach and an inductively driven exploration of concepts. Second, they are relatively efficient for collecting large amounts of data (i.e., interviewing three people individually for one hour each is more efficient than interviewing them together for one hour – even though it takes three times longer, the amount of data it provides more than compensates for the additional time expended). Third, they offer more latitude for asking open questions as well as the necessary flexibility for matching interview questions with the respondent's background. Finally, in an individual interview, respondents' answers are not influenced by the presence of others, so the individual format limits potential response bias due to group dynamics.

Another design choice concerns whether the interview should be conducted face-to-face or by such means as telephone, video-conference, or mail (Ghauri & Grønhaug, 2005; Ibert et al., 2001). I selected face-to-face interviews since they provide a number of advantages for exploring sources of competitive advantage. First, face-to-face contact helps with building the necessary level of trust with respondents and facilitates the development of a constructive atmosphere. Second, face-to-face communication suffers from fewer misunderstandings, technical problems and other distractions. And finally,

face-to-face interviews include non-verbal communication (or include it more strongly, when compared to video conferences), which facilitates effective explanations.

5.3.3 NUMBER OF INTERVIEWS AND THEIR LOCATION, TIME, DURATION, AND LANGUAGE

As outlined in Section 5.2.9, I interviewed 2-3 respondents per case, resulting in a total of 26 interviews, which were all held at the respondents' places of work in the period between October 2006 and July 2007.

The interviews were conducted either in High German or Swiss German according to the respondents' preference and scheduled to last about 1 hour. Depending on the availability of the interviewee and the number and nature of the issues requiring exploration, the duration of the actual interviews varied between 50 minutes and 2 hours 15 minutes, with a mean of 75 minutes.

5.3.4 PROCEDURE

The procedure for conducting the interviews is outlined in the case protocol (Appendix III). First, I contacted the selected firms and negotiated access. In a second step, I scheduled interviews with the designated contact person. Then, I conducted the first interview, typically with the CEO using the standard interview guide (Appendix IV). I voice-recorded the interview with the prior consent of the respondent, as well as taking handwritten field notes during the interview. At the end of the interview, I reviewed the candidate list with the respondent in the light of open questions and areas requiring further examination. Next, I scheduled interviews with the appropriate persons from the candidate list and adapted the interview guide to reflect their role and competencies. For instance, the first interview was conducted with a CEO who subsequently suggested interviewing the head of marketing. While the standard interview guide was appropriate for the first interview, it needed to be adapted for the second interview in order to accommodate the questions to the marketing function. This procedure was then repeated if a third person was to be interviewed.

5.3.5 ROLES OF INTERVIEWER AND INTERVIEWEES

The primary role of the interviewer was to prepare and conduct the interviews (see also Section 5.2.4). I adapted the interview guide (see Appendix IV) to reflect the respondent's area of competency and responsibility (e.g., marketing) and to focus the interview questions on those areas requiring further examination (e.g., brand). Besides the adaptation of the interview guide, the key challenge was to pose these questions in such a way as to induce respondents to talk about the subject matter (Yin, 2003). Among other

things, this required questions to be posed in a manner avoiding unnecessary bias and supporting honest and constructive dialogue (Yin, 2003, p. 90).

The respondents, on the other hand, had two main roles. First, they were the main sources of information: they provided facts, options, beliefs, and personal insights. Second, they suggested areas for further investigation as well as additional people to interview (theoretical sampling) (Corbin & Strauss, 2008; Glaser & Strauss, 1967; Silverman & Marvasti, 2008).

5.3.6 STATUS OF DATA

Having evaluated various data collection methods (Section 4.4.1) and data sources (Sections 5.2.8 and 5.2.9), I decided that collecting data from senior managers of high performing firms through interviewing is the most suitable strategy to address the research questions of this study. The data obtained are thus perceptions of managers; these are used to make inferences about reality in terms of resource asymmetries contributing to competitive advantage and superior firm performance. Hard empirical evidence about such asymmetries, not influenced by managers, seems to be lacking. Managers represent an original, relevant, and distinctive information source for exploring the phenomenon of competitive advantage. They offer through their perceptions, even if they are to some extent subjective, a way to approximate reality. To counter potential threats to validity, I applied the strategy of triangulation, which is further explained in Section 5.7.2.3.

5.4 DATA ANALYSIS

There are two basic approaches for analysing qualitative data – "content" and "grounded" (Easterby-Smith et al., 2002). Content analysis can be used to test concepts and hypotheses, while grounded analysis can be used to generate them (Table 10). I used a grounded analysis approach, because the study aimed at discovering and generating, rather than verifying, conceptual categories, conceptual properties, and conceptual linkages (i.e., resources and resource characteristics most closely associated with sustained competitive advantage).

A distinguishing feature of grounded analysis is the use of empirical evidence: It is used (1) to discover and develop concepts in terms of properties and dimensions and (2) to illustrate concepts (Glaser & Strauss, 1967). Within limits, it can also be used to substantiate emerging concepts and theoretical propositions. In grounded analysis, the

focus is clearly set on the generation rather than the confirmation of a conceptual layer that serves as a basis for the formulation of theoretical propositions or theories. (The analyst is thus encouraged to keep confirmatory processes to a level which does not interfere with the general process of concept development.) This conceptual layer is relatively stable: It may be extended or revised in the light of new empirical data but remains unaffected if the empirical data that originally gave rise to these concepts alters or ceases to exist. Thus, for developing this conceptual layer, the empirical data need neither be excessively precise nor highly persistent (Glaser & Strauss, 1967).

Table 10: Basic approaches for qualitative data analysis

	Content analysis	Grounded analysis
Purpose	Verification of concepts or hypotheses; Searching for content (prior hypotheses)	Discovering and generating conceptual categories, conceptual properties, and conceptual linkages; Understanding of context and time
Scope	Fragmented	Holistic
Orientation	Aims for clarity and unity	Preserves ambiguity and contradiction
Process	More deductive	More inductive
Perspective	Objective	More subjective: faithful to views of respondents
Empirical evidence	Used for verification; strives for accuracy	Used as indicator of conceptual categories and properties, and conceptual linkages; accuracy and persistence of empirical data not a priority
Importance of concepts	Largely determined by their frequency (i.e., centrality)	Largely determined by their meaning (e.g., distinctiveness of resources)

Note: Based on Easterby-Smith et al. (2002, p. 118) and Glaser and Strauss (1967)

As discussed in Section 4.4.2, I selected as a primary analytical strategy “merging findings across cases” (Stake, 2006), which is based on the principles of grounded analysis. I supplemented this strategy with techniques and tactics that support grounded data analysis and the generation of theoretical propositions. These techniques and tactics had been borrowed from grounded theory (Corbin & Strauss, 2008; Glaser & Strauss, 1967), and to some extent from “data analysis and display” (Miles & Huberman, 1994) and “cross-case pattern search” (Eisenhardt, 1989).

The process for analysing the data comprised six activities: transcribing and annotating interviews, creating contact summaries, coding, within-case analysis, cross-case

analysis, and developing integrative diagrams and memos. This process was also in part supported by software packages for qualitative data analysis and diagramming (atlas.ti, Nvivo10, and DecisionExplorer). The following sections describe these activities in more detail.

5.4.1 TRANSCRIBING AND ANNOTATING INTERVIEWS

Stebbins (2001) suggests that in exploratory studies the researcher should capture the main concepts during interviews; this can be done by taking field notes. He notes further that recording interviews on tape and transcribing them verbatim is not necessary, as this level of precision is seldom required in exploratory studies. Similarly, Stake (2006) proposes to transcribe only those parts of the recorded material that will be used in reporting the cases. However, I decided to digitally record all interviews and transcribe them verbatim, as there are important benefits associated with this, including capturing subtle differences between apparently similar concepts, maintaining an audit trail, assuring reliability, and having the opportunity to look up details in the process of writing up the findings. Thus, I transcribed the interviews and imported them into a software package for qualitative data analysis (QDA) called atlas.ti. I next annotated the interviews where necessary with the memo function of the QDA. Memos can be linked to single words, phrases, or whole sections. I used memos for different purposes, including capturing ideas, describing emerging concepts and tentative conceptual relationships, and adding summaries and interpretations.

5.4.2 CREATING CONTACT SUMMARY SHEETS

A first interim analysis can be achieved with a contact summary sheet (Miles & Huberman, 1994). I created a contact summary sheet for each interview, typically within a time frame of two days. The summary sheet was divided into the following sections: (a) contact details, (b) summary of key questions and answers, (c) salient points, (d) general remarks, and (e) proposed themes/questions for further exploration of the site. An example is provided in Appendix VI. The purpose of the summary sheet was to gain an overview of the data collected, to reflect on this data, to extract preliminary concepts and themes, and to identify further areas for exploration.

5.4.3 CODING

In grounded analysis, coding refers to the process of "deriving and developing concepts from data" by using analytic techniques such as "asking questions" and "making comparisons" (Corbin & Strauss, 2008, pp. 65–66). Codes are labels that the analyst

attaches to concepts and their properties (Corbin & Strauss, 2008; Glaser & Strauss, 1974). Codes may be linked to one or more text segments of transcribed interviews. These text segments may consist of a single word or a group of logically connected words, such as a phrase or a paragraph (Miles & Huberman, 1994). Coded text segments are thus instances of concepts or conceptual properties (Glaser & Strauss, 1967).

In essence, three types of codes can be used: “descriptive”, “interpretative” and “pattern” codes (Miles & Huberman, 1994). *Descriptive* codes may be directly derived from the coded text in the passage and contain little variation in meaning. *Interpretative* codes, on the other hand, account for subtle nuances in meaning. Finally, *pattern* codes can be used for emerging themes or interrelated concepts. Since my study is exploratory, I used primarily *descriptive* and *interpretative* codes. *Pattern* codes, in the sense described by Miles and Huberman (1994), are more relevant for explanatory case study research that seeks to tease out causal relationship between variables.

I created an initial coding list to facilitate the organization of data (Miles & Huberman, 1994). Such a list may consist of generic codes – such as actors, activities, context – or may be developed by “borrowing” concepts from the literature (Glaser & Strauss, 1967). However, in grounded analysis, the preferred approach is to perform the analysis without the aid of prior concepts for two main reasons (Glaser & Strauss, 1967). One is that this puts emphasis on the main task of discovering and developing conceptual categories and properties rather than on selecting and fitting data into conceptual categories. Second, the issue that data is “forced” into conceptual categories, and hence that concepts and empirical data do not “fit” well, is virtually absent. For this study, I used an initial coding list which reflected concepts used in the interview questions (Appendix V). These codes simply indicate possible conceptual categories and properties to start the analysis. These codes were modified, merged, divided, or abandoned during the course of the coding process by using techniques such as “asking questions” and “making comparisons” (Corbin & Strauss, 2008). Since this initial coding list only served as a device to organize data and not as an instrument to verify concepts, the potential issues of channelling away resources from grounded analysis as well as forcing empirical data into extant conceptual categories did not arise.

To commence the coding process I concentrated on a single interview transcript from one case. I coded text segments with codes from the list and created “in vivo” or “descriptive” codes for emerging concepts related to competitive advantage. Next, I

clustered the codes according to their meaning, and merged and relabelled them with more abstract names as appropriate. Finally, I ordered these codes thematically and refined the hierarchical structure of the coding scheme. This involved the generation of codes for conceptual categories (i.e., "higher order concepts"). I repeated this process for all remaining transcripts. I used three main analytical tools to explore and code data: "asking questions", "making constant comparisons" and "making theoretical comparisons" (Corbin & Strauss, 2008).

Asking questions was used to identify conceptual categories, properties and dimension; to reveal implicit assumptions; and to suggest areas for further exploration (Corbin & Strauss, 2008). Towards these ends I used questions such as the following: *Why is this firm more successful than close competitors? What are the competitive strengths of this firm? What are the characteristics of these competitive strengths? What is distinctive about these characteristics? Why would a competitor have difficulties to catch up? In what ways do these characteristics provide benefits for customers or cost benefits for the firm? In what contexts would these characteristics provide no value, or even turn into a competitive disadvantage? How do these characteristics relate conceptually? How are these competitive strengths (concepts, properties, dimensions) conceptually linked to sustained competitive advantage?*

Making constant comparisons was used to surface and develop conceptual categories and their properties (Corbin & Strauss, 2008; Glaser & Strauss, 1967). It is a process which compares "different pieces of data for similarities and differences" (Corbin & Strauss, 2008, p. 65). As the coding of data evolves, "constant comparative units change from comparison of incident with incident to comparison of incident with properties of the category that resulted from initial comparisons of incidents." (Glaser & Strauss, 1967, p. 108).

Finally, *making theoretical comparisons* was used to "stimulate thinking about properties and dimensions of categories" (Corbin & Strauss, 2008, p. 65). It is a process which compares properties and dimensions of emerging categories with "theoretical" categories derived from the literature or the analyst's own repertoire of experiences (Corbin & Strauss, 2008).

During the coding process, I attempted to achieve maturity in conceptualizations, referred as "theoretical saturation" (Corbin & Strauss, 2008; Glaser & Strauss, 1967), with respect to resources and resource characteristics that are most closely associated

with sustained competitive advantage. This state is technically reached "when all categories are well developed in terms of properties, dimensions, and variations [and f]urther data gathering and analysis add little new to the conceptualization, though variations can always be discovered." (Corbin & Strauss, 2008, p. 143).

The extent to which concepts technically can be saturated also depends on the availability of relevant empirical data. As noted earlier, competitive advantage is a rare phenomenon, and consequently data may not be as abundant as one might wish, and one may not be able to fully saturate all emerging concepts. The RBV suggests that scarce, hard-to-replicate, and often difficult-to-observe resources are potential sources of competitive advantage. Such resources may or may not be homogenously distributed among high-performing firms. Assuming that even highly successful firms possess heterogeneous resources, it may not be possible to saturate all resource categories relevant to competitive advantage with a sample of cases.

However, to further saturate concepts and to increase generalizability, I related the findings to the broader management literature (with a focus on strategic management oriented RBV literature). This technique is in essence similar to what has been described as "making theoretical comparisons" (Corbin & Strauss, 2008), "concatenation" (Stebbins, 2001), "aggregation or comparison of independent studies" (Schofield, 2002), or "enfolding literature" (Eisenhardt, 1989). I will describe the technique and related activities in more detail in Section 5.5.

During the coding process, the coding scheme constantly evolves (Corbin & Strauss, 2008). This also implies that when codes are created, merged, divided, deleted, renamed, and rearranged, the researcher must decide on what and how much of the material that has already been coded should be recoded. Glaser and Strauss (1967) recommend to recode material only if it helps to better saturate categories and if the incremental insight from doing so is higher than from coding new material. They argue that most of the time it is better to continue with coding new data.

As noted before, the study aimed at discovering and saturating conceptual categories with respect to resources and resource characteristics that are most closely associated with sustained competitive advantage. Thus, I followed the advice of Glaser and Strauss (1967) and concentrated on coding new material and only recoded material if it helped to saturate concepts in terms of performance relevant properties and dimensions.

In general, it is suggested that coding and recoding is finished either when explanations for the study's research questions are found (Stake, 2006) or when further coding only marginally increases the saturation level (Eisenhardt, 1989; Miles & Huberman, 1994). Miles and Huberman (1994) note that an ideal moment for concluding coding is difficult to find, particularly if the project is conducted over an extended period of time during which further opportunities to gain a deeper understanding through additional cycles of inquiry and analysis may arise. However, as they further point out, the decision regarding when to stop is also likely determined by funding, timelines, and other factors that limit the research project.

As a preparatory step for the within-case and cross-case analyses, I also developed a meta-matrix, which is in essence a table that stores condensed descriptive data for each case and that serves as a primary source for constructing various displays (Miles & Huberman, 1994). I assigned cases (firms) to columns and concepts to rows. I experimented with tables in Excel and in Word, but working with these tables proved to be more difficult and time-consuming than expected. A first issue was transparency. The table contained 11 cases and about 200 concepts, which equated to about 2200 data cells. A second issue was the synchronization of the coding scheme developed with the QDA software package (atlas.ti) and the concepts displayed on the meta-matrix. Clustering, merging, splitting, and hierarchically arranging these concepts was rather cumbersome.

Thus, at a later stage of the analysis phase I decided to migrate the transcripts and the coding scheme from atlas.ti to the Nvivo QDA package, which provides support for cross-tabulation. The cross-tabulations in Nvivo in essence served as a basis for developing within-case and cross-case displays.

5.4.4 WITHIN-CASE ANALYSIS

The analysis of single cases can serve several purposes. One is that it helps to divide the large amounts data involved in a multicase study into more manageable data units (Eisenhardt, 1989). It also helps to explore, describe, and explain a phenomenon of interest (i.e., of competitive advantage) within the bounds of a single case (Stake, 2006). The analysis can be performed in a variety of ways, as there are no prescriptive, universally accepted procedures (Eisenhardt, 1989). Miles and Huberman (1994), for example, suggest that individual cases can be analysed with a series of descriptive and analytical displays, which can be selected and adapted on the basis of the specific needs of the study. Some of these proposed displays, such as "conceptually ordered matrices",

are useful for exploratory studies, while others are more suitable for explanatory type of research. Although a number of advantages are attributed to systematic representations of data in displays (Miles & Huberman, 1994), the experience in the present study has been that they also have major drawbacks. One drawback is that displays can be difficult to maintain, particularly if modifications have been made in the underlying coding scheme. Furthermore, the process of merging, integrating or dividing conceptual categories within displays is rather cumbersome, time-consuming, and error prone. Finally, there is no direct link between the concepts in displays and the original data. It is thus difficult to expand concepts with illustrative case data, which was an issue in the write-up stage. Although I used data displays extensively at the beginning to explore themes and concepts, due to their limitations I gradually replaced them over the course of the study with more "dynamic" matrices developed in Nvivo, conceptual diagrams developed with DecisionExplorer, and memos (descriptive text).

For the within-case analysis I used the following procedure. First, I consolidated the content of the contact summary sheets related to a case. This provided an overview of relevant concepts and potential sources of sustained competitive advantage. It also indicated main conceptual categories (themes) to explore in the cross-case analysis.

Second, I developed conceptually-ordered displays (Miles & Huberman, 1994). These are based on the meta-matrix (see previous section) and essentially filter and order the data to focus the analysis on relevant conceptual categories (resources and capabilities).

Third, I constructed various conceptual diagrams (Corbin & Strauss, 2008) to reflect on conceptual categories, properties, dimensions, and conceptual linkages (i.e., resources, resource characteristics, and linkages to competitive advantage). These diagrams resemble to some extent what Miles and Huberman (1994) describe as "networks". A subtle but important difference is, however, that conceptual diagrams are more descriptive: they can include properties and dimensions of concepts, and thus are not limited to a set of causally related nodes (variables). Although the study used conceptual diagrams, it is important to bear in mind that the study is exploratory and not explanatory – that is, it focuses on the generation of concepts and theoretical propositions, rather than on isolating a few variables and examining their causal relationships.

Finally, I developed, where appropriate, a more detailed description of these diagrams in the form of a memo. This included tentative assertions about the research subject, that is, about sources of competitive advantage.

5.4.5 CROSS-CASE ANALYSIS

A cross-case analysis is a further opportunity to refine conceptual categories and properties by making comparisons across different sets of cases. The literature offers an array of strategies, methods, and tactics that might potentially be used for this purpose. For example, Miles and Huberman (1994) suggest that cross-case analysis can be done with either "case-oriented strategies", "variable-oriented "strategies", or "mixed strategies". Eisenhardt (1989), on the other hand, advocates a method for identifying patterns across cases through heterogeneous analytical perspectives. Finally, Stake (2006) offers three different methods for cross-case analysis: "emphasizing case findings", "merging case findings", and "providing factors for analysis".

In order to explore the sources of sustained competitive advantage and to draw conclusions in the form of theoretical propositions, I considered the method *merging case findings* proposed by Stake (2006) a good match for three main reasons. First, it is based on the principles of grounded analysis. It focuses attention on the development of conceptual categories and properties, rather than on the frequencies of concepts in the data collected (i.e., a content-based analysis of differences and similarities). Second, it focuses analytical efforts on the main conceptual categories that help to answer the research question, rather than on isolating a few variables and verifying their causal relationships. Third, it allows for the aggregation of commonalities, but at the same time permits one to explore "outliers". As Barney and Clark (2007, p. 255) point out, "Resource-based theory is not about the mean, it is about the unusual, the outlier." Fourth, it allows for the refinement and saturation of conceptual categories and properties (see Corbin & Strauss, 2008; Glaser & Strauss, 1967).

I used a cross-case analysis procedure consisting of two sets of activities. A first set of interrelated activities aimed to better focus later analysis by merging case findings and sorting them according to their ability to explain the main research question (Stake, 2006), that is, *What firm resources and resource characteristics are most closely associated with sustained competitive advantage among a small sample of high-performing firms?* For this purpose, I first developed a cross-case matrix with rows for "findings" and columns for "cases". Second, I entered and merged case findings (i.e., the resources and

capabilities most closely associated with competitive advantage). This process was also supported by the previous activity in data coding through "categorization". Third, I rated case findings in terms of importance, utility, and prominence (Stake, 2006). More specifically, I used the following criteria: (1) relative competitive strength, (2) relative difficulty for competitor to imitate or substitute, and (3) relative context dependence, and (4) prominence. Fourth, I ranked findings according to their rating and grouped them into main findings and special findings. Main findings comprised those identified as important competitive strengths and deemed relatively difficult to imitate and substitute, and that have been mentioned in four or more cases. Special findings, the second group, contained findings that appear only in a few cases, and that can tentatively be considered specific to a particular context.

A second set of activities was concerned with the refinement of conceptual categories by making comparisons across cases. This can be done by contrasting a case with another case, contrasting a group of cases with another group of cases, and listing parallels within a group of cases (Eisenhardt, 1989). Such a structured approach may offer new insights, help saturate conceptual categories and properties, and suggest conceptual linkages to draw theoretical propositions. To further develop conceptual categories and properties, I primarily used the constant comparison method (Corbin & Strauss, 2008; Glaser & Strauss, 1967). As a variant of this method, I selected for each main finding the relevant cases, which Miles and Huberman (1994) refer to as "stacking comparable cases." Next, I noted similarities and differences among these cases. Most of the similarities and differences had already been uncovered through the coding process described above. However, this technique helped to refine categories and properties, and to add variation to concepts. To support this process, I selectively used matrix displays proposed by Miles and Huberman (1994). Finally, I focused attention on conceptual relationships. Given that this study is exploratory and not explanatory, I did not attempt to rigorously examine causal relationships. However, I derived conceptual relationships by generalizing "in-vivo" statements about conceptual linkages made by respondents, and by developing and integrating conceptual categories during the coding process (Corbin & Strauss, 2008; Glaser & Strauss, 1967).

5.4.6 DEVELOPING INTEGRATIVE DIAGRAMS AND MEMOS

Based on the previous analytical steps, I developed for each main finding an integrative diagram. These diagrams are abstract "visual devices that portray possible relationships between [analytic] concepts" and can serve various purposes (Corbin & Strauss, 2008, p.

117). I used them to integrate concepts, to clarify conceptual linkages, to build “an integrative story”, to develop and outline for reporting the findings, and to visually present the main concepts and conceptual linkages in the final report (Corbin & Strauss, 2008). In addition, these integrative diagrams may be used by other researchers as an input for developing formal theories of competitive advantage (i.e., by integrating concepts and theoretical propositions expressed in the integrative diagrams with their own substantive theories). They may also serve managers and strategists as instruments to explore, in the context of their own firms, possible routes for exploiting VRIN resources (e.g., firm reputation).

These integrative diagrams depict main conceptual categories, properties, and conceptual linkages. They are abstract conceptualizations of data, and as such not representative for a particular case or group of cases. They reflect, however, the analyst’s interpretation of empirical data, as Corbin and Strauss (2008) note:

> When constructing theory, even though concepts can be put together in different ways, the relationships proposed by the researcher are based on data and therefore can be said to have some grounding in the data. With continued comparison of concepts against actual data, proposed relationships become substantiated in that they continue to make sense and offer one possible explanation. With time, diagrams become more integrative and complex. (p. 27).

Following the recommendation of Corbin and Strauss (2008), I attempted to construct integrative diagrams that are relatively easy to absorb and follow and that highlight main concepts and conceptual linkages. In addition, I drafted for each integrative diagram an integrative memo (i.e., a narrative), which provides the details (Corbin & Strauss, 2008). Empirical evidence was used here to illustrate conceptual categories and properties (Glaser & Strauss, 1967) rather than report frequencies of concepts (i.e., similarities and differences among cases and respondents), which is a characteristic of content-based qualitative research (Easterby-Smith et al., 2002). Although verification is not a priority in grounded analysis, it tried to verify emerging concepts and propositions to an extent that did not jeopardize the study’s overall goal of discovering and developing concepts and theoretical propositions (see Glaser & Strauss, 1974). The figure below provides an overview of the approach used to develop integrative diagrams and memos.

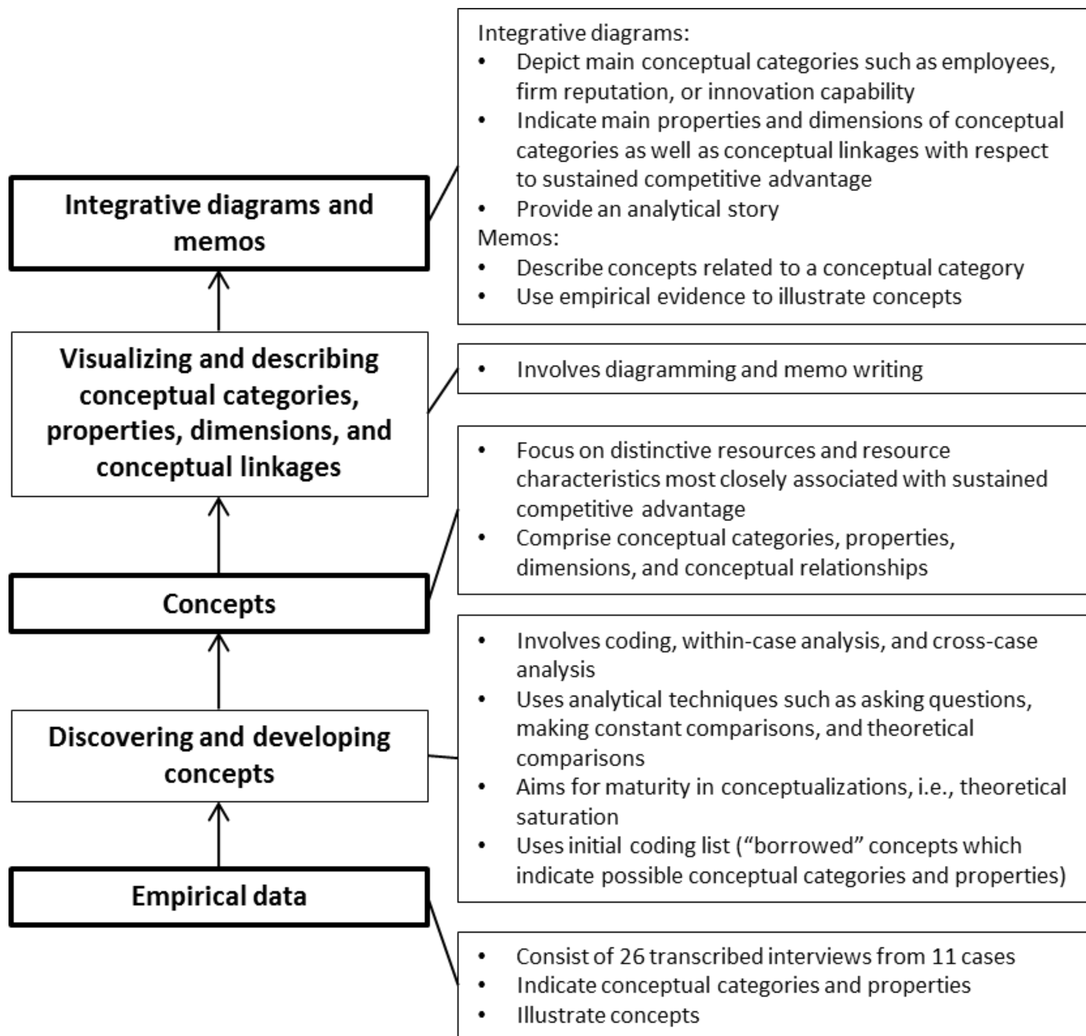

Figure 13: Approach used to develop integrative diagrams and memos

In sum, I used grounded analysis, which concentrates on the development of categories and concepts in terms of properties/dimensions, and to some extent on conceptual linkages. More specifically, I used "merging case findings" as a primary analytical strategy (Stake, 2006) which has been supplemented, where appropriate, with techniques borrowed from *grounded theory* (Corbin & Strauss, 2008; Glaser & Strauss, 1967), *data analysis and display* (Miles & Huberman, 1994), and *cross-case pattern search* (Eisenhardt, 1989). The process for analysing the data included a series of activities including transcribing and annotating interviews, creating contact summaries, coding, within-case analysis, cross-case analysis, and developing integrative diagrams and memos. The integrative diagrams and the integrative memos are the main outputs from this analytical process. The *integrative diagrams* depict the main conceptual categories,

concepts, and conceptual linkages while the *integrative memos* provide the details of the concepts in the form of a narrative illustrated by case data.

The approach and strategy used for analyzing and presenting qualitative data draws on the methodological literature on grounded analysis (Corbin and Strauss, 2008) and exploratory case study research (Stake, 2006; Stebbins, 2001). This approach, however, differs from the more explanatory, content analysis based approaches suggested, for example, by Miles and Huberman (1994) and Eisenhardt (1989). A key difference concerns the use of empirical evidence. In grounded analysis it is primarily used to discover and develop concepts in terms of properties and dimensions. It is also used to illustrate concepts, and in limits to substantiate emerging concepts and theoretical propositions. To develop concepts, the analyst typically uses techniques such as *asking questions* or *making constant comparisons*. This is done until some level of conceptual saturation is reached and then moves on to the next concept of interest. Grounded analysis does not require the researcher to recode the whole data set. In *content analysis*, in contrast, the researcher seeks to test hypotheses (or an emergent theory) by counting the frequencies of mentioned concepts and conceptual interrelationships (Easterby-Smith et al., 2002). Thus, the importance of individual concepts is determined by their frequencies in data rather than by their meaning. (The content-based approach was among other things not considered to be a viable option for this study because it is highly inconsistent with the fundamental quest in RBV research to identify and explore the extraordinary characteristics of firms – i.e., distinctive, strategically relevant resources – that give rise to competitive advantage. For a more detailed discussion of the rationales behind methodological choices made in this study, see also Sections 4.3-4.5.)

5.5 A REVIEW OF THE LITERATURE RELEVANT TO FINDINGS

Relating the study findings to the existing empirical and conceptual literature can help increase confidence in the findings, raise the study's conceptual level, and develop more concise and more widely applicable theoretical propositions (Eisenhardt, 1989; Stebbins, 2001). Relating findings to the relevant literature, and thus to other contexts and situations, can be considered a form of replication, which significantly increases the generalizability beyond the scope of the present study (Yin, 2003).

Eisenhardt (1989) recommends comparing the findings of one's study to similar as well as divergent literature, and potentially to work from a variety of disciplines. Such a broad and eclectic approach may be suitable for developing and situating a completely new

theory, but seems too unfocused if the purpose of the study is to extend or refine an existing theory. Since the present study seeks to develop empirically grounded theoretical propositions by examining the sources of sustained competitive advantage from a resource-based perspective, I determined that a focused approach was adequate. Therefore, I concentrated the search on strategic management oriented RBV literature, which included both academic journals and books. I identified relevant academic journals by searching the ABI/INFORM complete database using the following search parameters: (1) document title or document abstract contains the terms "RBV", "RBT", "resource-based view", "resource-based theory", or "resource-based perspective"; (2) publication date is between 1984 and 2010; and (3) publication type is "scholarly journals". Thereafter, I ranked the publications according to the number of resource-based articles they contained. To further focus the search, I considered only those publications that were closely associated with the field of strategic management and that had published a minimum of five of articles in the period 1984-2010.

The second set of works consisted of relevant books and book chapters. To identify these, I scrutinized the references in resource-based studies. Relevant books and book chapters included, for example, Barney (1997), Barney and Arikan (2001), Barney and Clark (2007), and Grant (2008).

A third set of publications consisted of non-strategic management oriented RBV literature. I selectively reviewed some of this literature to reinforce the findings, elucidate concepts, and support the arguments made in the discussion section. This literature included, for example, RBV-oriented literature in the field of marketing or human resource management.

In sum, relating the findings to the literature involved a set of iterative activities: identifying relevant literature; comparing study findings, concepts, and relationships between concepts with the literature; integrating the study findings with the literature; and revising theoretical propositions. To support these efforts, I also used, where appropriate, tools like conceptually-ordered matrices with columns for confirming and disconfirming literature.

5.6 DEVELOPING PROPOSITIONS AND REACHING CLOSURE

The penultimate stage of this exploratory multicase study is concerned with developing conclusions in the form of theoretical propositions (Stake, 2006). The literature suggests

different approaches that might be used depending on the type and purpose of the study. Approaches appropriate for more explanatory types of studies may focus on the definition and measurement of constructs and on the verification of causal relationships (e.g., Eisenhardt, 1989), while those for studies with a more exploratory character – like the present study – concentrate on grounded assertions about the research subject and associations between concepts (Stake, 2006; Stebbins, 2001). I largely adopted the approach proposed by Stake (2006), though I complemented it with the basic concepts of resource based theory. As discussed in Chapter 3, these concepts include value, rareness, inimitability, and non-substitutability (VRIN), which have been described as the necessary and sufficient conditions of sustained competitive advantage. This basic framework has also been subject to revision: the condition "organization" has been added, and non-substitutability has been integrated into the concept of inimitability. This version was eventually labelled VRIO (see Barney, 1997). In the present study, I focus on the VRIN concepts for two main reasons. First, assertions regarding inimitability and non-substitutability of resources associated with competitive advantage may differ from each other, and hence elucidate important characteristics of firm-level differences. Second, the concept of "organization" can be understood as being a dimension of the concept of "value", since resources can only create economic value if they are utilized in concert with other, complementary resources (Teece, 1986a).

To develop the theoretical propositions I largely followed the procedure proposed by Stake (2006). The first step concentrated on developing tentative assertions. I reviewed the list of merged findings developed in the cross-case analysis stage. Next, I considered, for each finding, what assertions can be made with respect to the research question (i.e., sustained competitive advantage). Then I assessed, again for each finding, what assertions can be made with respect to the value, rareness, inimitability, and nonsubstitutability condition of competitive advantage. Based on the results of these considerations, I drafted tentative assertions. The second step concentrated on the evidence for each assertion. I first linked each assertion with the pertinent evidence, and then reviewed the evidence for each assertion as a whole. The third step concentrated on the revision of the assertions. I started with a review of each tentative assertion, added, combined, and edited them as needed, and finally reordered them according to their importance. The final step was aggregating the assertions into theoretical propositions.

A pertinent question to any research project is: When is the optimal time to close the study? Obviously, an ideal time would be when the goals of the study have been attained. These goals are basically linked to the study's ability to provide an answer to the main research question (Stake, 2006). In this study, the main research question focuses attention on firm-level sources of sustained competitive advantage (see Section 5.2.3). Potentially, such a question is open-ended, since there are multiple sources that could be investigated through different cycles of data collection, analysis and interpretation. For these reasons, I followed the approach described by Stake (2006), which suggests focusing the analytical process on the most important findings that can answer the main research question. A second implicit research goal is theoretical saturation, since this study uses a grounded approach for the development of theoretical propositions (Corbin & Strauss, 2008). However, as noted in Section 5.4.3, the concept of saturation stands somewhat in contradiction to the RBV concept of resource heterogeneity. The RBV suggest that only unique or scarce resources can provide advantages over competing firms. Hence, it would be illogical to assume that these resource categories can be fully saturated across a sample of firms, no matter how carefully the sample has been selected.

Apart from research goals, closure may also depend on the timelines set and on resource constraints (Eisenhardt, 1989; Miles & Huberman, 1994). In this study, the timeline was set by the university regulations for PhD studies. In addition, to use the available time productively, I followed the recommendation of Eisenhardt (1989) to sample the cases in advance (i.e., purposive rather than theoretical sequential sampling) and to develop cases in parallel rather than one after another. Figure 14 depicts the process used to develop propositions and the way the literature has been used.

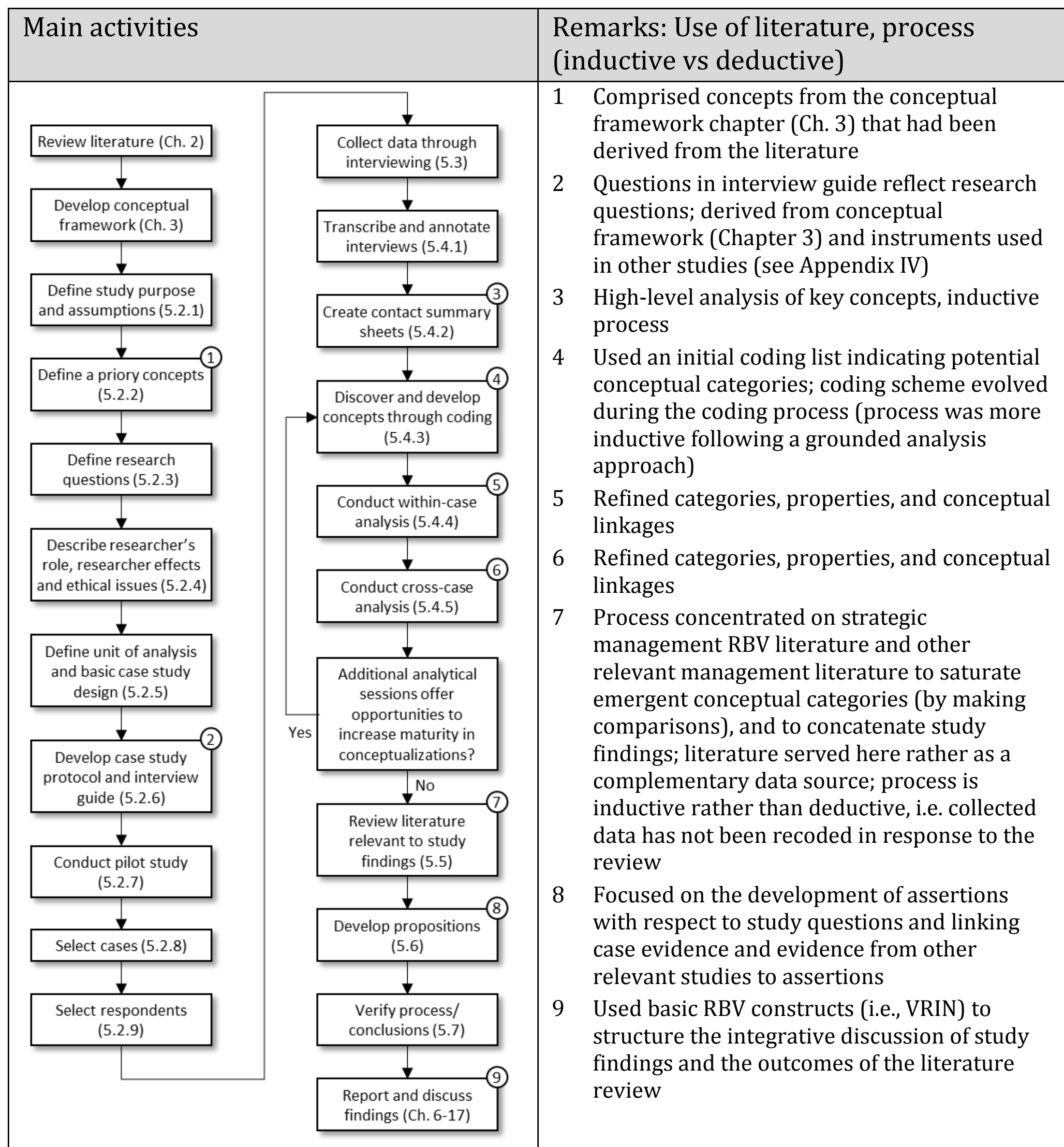

Figure 14: Process used to develop propositions: key activities and role of literature

5.7 VERIFICATION

As with other types of research, the knowledge creation process through qualitative, exploratory, multicase study research also involves standards and procedures to verify that research outcomes are accurate and trustworthy (Stake, 2006). In the view of Creswell (2003), verification is not a discrete step on the way to finishing a study but rather a process that affects all stages of research design, from selecting study samples to reporting findings. Standards, as he notes, are criteria that the researcher and others apply to assess the quality of a study in its final form. Scholars in particular research traditions may define and approach the verification of qualitative management research differently (Easterby-Smith et al., 2002). Some researchers, for instance, adhere quite

closely to the canons of reliability and validity used in positivistic research, while others use the same or similar terms, but with different connotations (see Creswell, 1998). Scholars who incline more towards interpretative philosophical positions have even advanced their own terms to judge the value of their work. Lincoln and Guba (1985, pp. 295–300), for example, propose "credibility", "transferability", "dependability", and "conformability" (which correspond to the terms internal validity, external validity, reliability, and objectivity) as yardsticks to assure that findings and conclusions are correct and trustworthy. Miles and Huberman (1994), reviewing different qualitative research approaches, subsume quality standards for research outcomes under the headings of objectivity, reliability, internal validity, external validity, and utilization. In a similar vein, Easterby-Smith et al. (2002) suggest that the quality standards for management research may be summed up under the labels of validity, reliability, and generalizability. They note, however, that these terms cannot be defined universally, as their interpretation largely depends on the paradigm to which researchers subscribe (Table 11).

Table 11: Paradigmatic perspectives on validity, reliability, and generalizability

Issue	Positivist perspective	Relativist perspective	Constructionist perspective
Validity	Do the measures correspond closely to reality?	Have a sufficient number of perspectives been included?	Does the study clearly gain access to the experiences of those in the research setting?
Reliability	Will the measures yield the same results on other occasions?	Will similar observations be reached by other observers?	Is there transparency in how sense was made from the raw data?
Generalizability	To what extent does the study confirm or contradict existing findings in the same field?	What is the probability that patterns observed in the sample will be repeated in the general population?	Do the concepts and constructs derived from this study have any relevance to other settings?

Note: From Easterby-Smith et al. (2002, p. 41)

With respect to case study research, Yin (2003) proposes verifying the quality of a study along commonly used standards in empirical social science research, referring to construct validity, internal validity, external validity, and reliability. In a similar vein,

Eisenhardt (1989) suggests evaluating the case-based theory-building research on the basis of construct validity, internal validity, external validity, and reliability.

For exploratory studies, Stebbins (2001) advises using validity and reliability as standards for verification. He notes, however, that the relative importance attributed to validity and reliability in exploratory studies is frequently above the level of what is necessary. He asserts that validity in exploratory studies evolves more or less naturally from the process of concatenating different studies in the field (which may be understood as the process of triangulating of research findings across a number of studies). In the following I will discuss these standards and procedures as they apply to the present study.

5.7.1 Objectivity

Objectivity refers to the "relative neutrality" of a study and the "acknowledgment of researcher biases" (Miles & Huberman, 1994, p. 278). A researcher may influence what is being investigated (i.e., cases, respondents, research settings) and vice versa, raising the likelihood of some bias in research findings and conclusions (Creswell, 2003). Miles and Huberman (1994) suggest that no matter how carefully qualitative research is designed and conducted, some biases may be unavoidable. In a similar vein, Maxwell (2005) notes that the avoidance of researcher effects is not an objective in qualitative research (unlike in traditional quantitative research); such effects are rather seen as something valuable (e.g., they may provide additional insights about or contrasting perspectives on a phenomena of interest) if they are identified and constructively used. With respect to multicase studies, Stake (2006) also notes that research outcomes are subjective and hence not expected to be value-free. In short, the central issue is not to suppress such influences, but rather to identify them, to use them in a productive way, and to make the researcher's assumptions, preferences, and role, as well as the chosen research processes, transparent enough so that readers can gain a fair understanding about the possible biases involved in the study's outcomes. Specific tactics with respect to the issue of objectivity include using a case study protocol (Yin, 2003), maintaining a case study database (Yin, 2003), checking for researcher effects (Miles & Huberman, 1994), addressing rival explanations (Miles & Huberman, 1994; Yin, 2003), and a statement about potential researcher effects and the researcher's role in the study (Miles & Huberman, 1994). The following strategies have been used to address objectivity issues.

5.7.1.1 Assumptions, preferences, potential bias, and the role of the researcher

The methodology chapter (Chapter 4) discusses in detail the paradigm (including ontological and epistemological assumptions and methodological preferences) adopted for this study, that is, *relativism*. This paradigmatic position is also expressed in the formulation of the research problem and research question. This position is also evident in the choices made to effectively address the research problem and question. These choices concern the research strategy (case study), methods for data collection (interviewing), methods for data analysis and interpretation (grounded cross case analysis), and research approach (inductive, exploratory, qualitative approach). For a detailed discussions of these choices see Chapter 4, Sections 4.3-4.5).

The potential biases that could influence the outcomes of the present research have been identified in Section 5.2.4. The same section also discusses at some length the role of the researcher in this study. The specific role of the researcher in conducting interviews is discussed in Section 5.3.5.

5.7.1.2 Research approach, strategy, and methods

I have provided a full description of these elements in Chapter 4 (Sections 4.3-4.5). I also discuss in detail the operationalization of these elements in Chapter 5 (research design). Chapter 5 specifies the procedures and instruments actually employed in this study. As indicated in Section 5.2.6, these instruments include a case study protocol (as proposed by Yin, 2003) as well as an interview guide (see Appendix III and Appendix IV).

5.7.1.3 The research process

The research design chapter provides a detailed description of the research process as it was in fact conducted, from identifying relevant data sources to drawing conclusions. Key steps in this process include selecting cases and respondents, conducting pilot studies, collecting data through interviewing, analysing and interpreting the data, linking findings with the literature, and developing propositions (see Sections 5.3-5.6).

5.7.1.4 The case study database

Another element to assure objectivity, as proposed by Yin (2003), is the maintenance of a case study database. The case study database consist of an electronic file system that stores all relevant case documents (e.g., audio files, transcripts, contact summaries, interim summaries, memos, integrative diagrams, and matrices). In addition, data is also

stored for analysis in qualitative data analysis software packages (atlas.ti, Nvivo). The data in these packages include interview transcripts, annotations, memos, coding scheme, codings, diagrams, and reports. The description of the research process as well as the record of all relevant study material is detailed enough to be used as an audit trail (Miles & Huberman, 1994).

5.7.2 VALIDITY

Validity refers, broadly conceived, to the "truth value" of a study. This is largely determined by the extent to which findings are consistent, accurate, and trustworthy, and hence provide a fair representation of the phenomenon or research subject studied (Miles & Huberman, 1994, p. 278). Miles and Huberman (1994, p. 279) propose a process-oriented view to validate the different forms of understanding (e.g., descriptions, interpretations, and theoretical propositions) involving "checking, questioning and theorizing". Two commonly discussed forms of validity in qualitative research include construct validity and internal validity.

Construct validity is concerned with "establishing correct operational measures for the concepts being studied" (Yin, 2003, p. 34). In deductive, theory-testing research, constructs need to be specified in advance to minimize researcher influence during data collection (Yin, 2003). By contrast, in inductive, theory-generating research, constructs emerge during data analysis and are therefore specified towards the end of the study (see Eisenhardt, 1989). Eisenhardt (1989, p. 541) calls this procedure the "sharpening of constructs" which comprises both "refining the definition of construct[s]" and "building evidence to measure construct[s] in each case". There are a number of tactics that can be used to increase construct validity, including using multiple sources of evidence (also referred to as triangulation) (Stake, 2006; Yin, 2003), establishing a chain of evidence (Miles & Huberman, 1994; Yin, 2003), and conducting case study reviews with the help of participants (Yin, 2003).

Internal validity, on the other hand, is concerned with "establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships" (Yin, 2003, p. 34). Internal validity, as Yin (2003, p. 34) notes, is only relevant to "explanatory or causal studies", and not to "descriptive or exploratory studies", since the latter make no causal claims. Tactics associated with the issue of internal validity include addressing rival explanations (Eisenhardt, 1989; Miles & Huberman, 1994; Silverman, 2005; Yin, 2003), explanation building (Yin, 2003), ruling

out spurious relations (Eisenhardt, 1989; Miles & Huberman, 1994), using extreme cases (Miles & Huberman, 1994), using logic models (Yin, 2003), and using if-then-tests (Miles & Huberman, 1994). In addition, there are also more generic tactics that may help to address internal validity issues, including triangulation (Miles & Huberman, 1994; Yin, 2003) and establishing a chain of evidence (Miles & Huberman, 1994; Yin, 2003). Although exploratory studies like the present one make no causal claims, they still might indicate associations between concepts. Such associations may be verified through the process of consolidating assertions across cases to develop theoretical propositions (Stake, 2006). The following strategies have been employed to ensure validity.

5.7.2.1 SPECIFYING A PRIORI CONCEPTS

This study takes as a point of departure concepts already present in the RBV literature (see section 5.2.2). These concepts are specified in chapter 3 (which discusses the conceptual framework). They serve as an orientation and theoretical lens for this study, as an input for research questions, as a basis for the formulation of the interview guide, and as a reference framework to assess study findings (i.e., VRIN criteria).

5.7.2.2 SELECTING RELEVANT DATA SOURCES

Probably the most fundamental issue for assuring validity is the selection of relevant data sources with respect to the phenomenon under study (i.e., competitive advantage) and the research question (firm-level sources of competitive advantage). To assure data relevance, cases have been carefully selected using a purposive sampling strategy, while respondents have been selected using a theoretical sampling strategy. For a detailed discussion of these strategies, see Sections 5.2.8 and 5.2.9.

5.7.2.3 TRIANGULATION

The central idea in triangulation is that conclusions are drawn from or verified with a set of different and independent, but relevant, data sources. The present study triangulates data at four levels. The first level is formed by the study cases. As noted above, the study draws on data from 11 purposively sampled cases (i.e., high performing firms). The second level for triangulation is case respondents. This study uses data from 2-3 theoretically sampled respondents per case (senior managers). The third level of triangulation occurs at the level of the individual interview by comparing the responses to interview questions. The study used different sets of questions (closed and open questions). One of the open questions, for example, asked respondents for the reasons behind their firm's success. Another set of more structured, closed questions, asked how

important individual resources (e.g., patents, culture) are with respect to firm performance. The responses provided the basis for triangulating data within a single interview. Finally, the study triangulated findings with the extant resource-based literature in the field of strategic management, and where applicable, with other management literature. This process has also been described as comparing and contrasting study findings with the extant literature (Eisenhardt, 1989) and concatenating findings across studies (Stebbins, 2001). The implementation of these four triangulation strategies has been discussed at some length in Section 5.2.8 (selecting cases), Section 5.2.9 (selecting respondents), Section 5.2.6 (interview guide), Section 5.4.3 (coding), Section 5.4.4 (within-case analysis), Section 5.4.5 (cross-case analysis), and Section 5.5 (review of the literature relevant to findings).

Despite this triangulation effort, some areas of uncertainty or non-converging results may remain. The areas of uncertainty have been discussed, where applicable, directly in the findings chapters (Chapters 6-17) and at a more general level in the conclusion chapter (Chapter 18). To address the issue of non-converging evidence, the primary technique has been rating individual evidence in terms of validity (Miles & Huberman, 1994; Stake, 2006). For example, if two respondents of the same case provided different information about a particular marketing resource, the response from the respondents with the higher affinity to marketing (i.e., competency and experience) was rated higher. Non-converging evidence has also been instrumental in comparing findings across cases. For example, a particular resource may be a source of competitive advantage in one case, but not in others. At a more aggregate level, there may also be non-converging evidence from the present study with respect to other studies. All these contrasts are discussed in the findings chapter (Chapters 6-17).

5.7.2.4 DEVELOPING AND SATURATING RELEVANT CONCEPTS

This study used a variety of analytical steps and activities to explore firm-level sources of competitive advantage (see Section 5.4). During these analytical steps, there emerged a number of concepts (i.e., resources and capabilities) that are most closely associated with competitive advantage (see Chapters 6-17). Relying on the principles of developing a grounded theory, the study places a high emphasis on developing and saturating relevant concepts. However, as discussed in Section 5.4.3, the research subject "competitive advantage" also sets clear boundaries on the extent to which concepts can be saturated.

Another key aspect that aims to ensure conceptual validity in this exploratory multicase study is the focus on the most relevant concepts (findings) with respect to the main study question (Stake, 2006). These concepts have been presented and discussed in the findings chapter (Chapters 6-17).

5.7.2.5 Other strategies and tactics

I have also considered for this study other tactics that have been noted in the literature as appropriate for qualitative studies. One of them is review by participants (Yin, 2003). This tactic seems to be particularly useful in situations where conclusions can be readily drawn and the subject matter is not considered competitively sensitive. In this study, however, I considered this tactic inappropriate for two main reasons. First, the interviews have been transcribed verbatim. To ask study respondents (senior managers with a busy schedule) to verify the transcription is neither necessary nor very meaningful, because it provides no additional insights for the study respondents. Second, such a review process may potentially also decrease validity: respondents might, for example, send the interview transcripts to other persons in the organization (e.g., to people in the marketing communication department or the legal department) who might then insist on removing strategically sensitive but highly relevant information from the report.

5.7.3 Reliability

Reliability refers to the extent to which the "operations of a study – such as the data collection procedures – can be repeated, with the same results" (Yin, 2003, p. 34). The objective is thus to describe the research process in such a way that researchers subscribing to the same paradigm would arrive, theoretically with the same set of cases, at the same findings and conclusions. To ensure reliability in multicase research, Yin (2003) highlights two specific tactics: using a case study protocol and developing a case study database. I used the following strategies to address the issue of reliability.

5.7.3.1 Specifying the basic paradigm

The research paradigm for this study is relativism. The philosophical position adopted is fully described in the methodology chapter (Chapter 4, Section 4.2)

5.7.3.2 Specifying the research question and other research design elements

The research question has been fully described in Section 5.2.3. The remaining research design elements, ranging from case selection to the development of propositions, have

been described in detail in the present chapter. The research design also includes the use of a case study protocol (Appendix III) and the development of a case study database as proposed by Yin (2003).

5.7.3.3 OTHER STRATEGIES AND TACTICS

For this study I have also considered other tactics that have been mentioned in the context of reliability. One of them is coding reliability tests (Miles & Huberman, 1994). This tactic is relevant for research based on content analysis (Weber, 1990) and for research in which data is coded by multiple researchers. In this study, I considered it inappropriate for two main reasons. First, there is only one researcher, and hence there is no need to assure coding consistency among a team of collaborating researchers. Second, coding reliability tests involving persons not deeply immersed with the research data are inconsistent with the principles of the grounded theory approach applied in the present study. A key technique for developing concepts, properties, and dimensions in the grounded theory approach is the constant/theoretical comparison of incidents (Corbin & Strauss, 2008). It is unlikely that anyone could develop the necessary frame of reference simply by examining the coding scheme and some pages of interview transcripts. Third, using coding reliability checks may even pose a threat to the validity of research. This is especially the case if coders vary in their profiles (e.g., in terms of paradigm, knowledge, and research interest). As an example, assume coder A is an economist subscribing to relativism, whereas coder B is a lawyer subscribing to positivism. Coder A conducts and transcribes all interviews, while coder B has access to a subset of transcribed interview pages, plus a high-level understanding of evolving concepts and categories, but is not otherwise involved in the research. After performing an intercoder reliability test, coder A and coder B compare their agreements and disagreements in coding and try to sort out disagreements (which basically arise from differences in profiles and exposure to data). Sorting out these disagreements likely results in some compromises at the expense of validity. Although it might be possible in the present study to conduct such tests in some form, perhaps at the very end of the study when all the concepts and categories are fully developed, the tests would be unlikely have an impact on the study findings, because I give higher priority to assuring the validity of findings than to gaining a high level of consensus among researchers with different frames of references and different levels of exposure to research data.

5.7.4 GENERALIZABILITY

Generalizability, also referred to as external validity, is concerned with "establishing the domain to which a study's findings can be generalized" (Yin, 2003, p. 34). Tactics for achieving a high level of external validity in case study research include using replication logic across cases (Eisenhardt, 1989; Miles & Huberman, 1994; Stake, 2006; Yin, 2003) and comparing and contrasting findings with extant literature (Eisenhardt, 1989). The following strategies are used to assure the generalizability of study findings.

5.7.4.1 CASE SAMPLE, RESPONDENT SAMPLE, AND UNIT OF ANALYSIS

The case sample, the respondent sample, and the unit of analysis have been fully described, which allows comparisons with other samples. The case sample consist of 11 firms, the respondent sample consist of 26 individuals, and the primary unit of analysis is the resource. For a detailed discussion see Sections 5.2.5, 5.2.8, and 5.2.9.

5.7.4.2 TRIANGULATION

As indicated above in Section 5.7.2.3, different forms of triangulation are used in this study. Two of these – cross case analysis and comparing and contrasting findings with the extant literature – are considered pivotal for assuring external validity of theoretical propositions. The key tactic involved is replication (Eisenhardt, 1989; Yin, 2003). For a detailed discussion of these two forms of triangulation see Sections 5.4.5 and 5.5.

5.7.4.3 PRESENTING THE THEORETICAL PROPOSITIONS

The study draws conclusions in the form of theoretical propositions, which epitomize the scope and boundaries of generalizations. The findings chapter also provides contextual and other background information, which can be used to assess the transferability of concepts and propositions to other situations. In addition, limitations of the study arising from the sample, setting, and concepts have been discussed at some length in the conclusion chapter (Chapter 18). Finally, the study also provides a discussion of possible research settings in which the findings and the theoretical propositions can be tested further (Chapter 18, Section 18.5).

5.8 CHAPTER CONCLUSION

This chapter focused on the research design for this study. I commenced with an overview of the research process, indicating steps and key activities. The following sections described these steps in detail, including definitions and preparations, data collection, data analysis, the review of literature relevant to the study findings, the

development of propositions, reaching closure, and verification. The next chapter provides an introduction to the findings of the study.

6 FINDINGS AND DISCUSSION: GENERAL INTRODUCTION

6.1 CHAPTER INTRODUCTION

This chapter provides a general introduction to the findings and discussion chapters. It opens with a brief description of the processes used for data collection and analysis. That is followed by an overview of the findings that emerged from the analytical process. These findings have been aggregated from individual cases (firms) and sorted according to their ability to explain the study's main research question. They have then been grouped into main and special findings; the main findings will be presented and discussed in detail in separate chapters, while the special findings will be presented and discussed together in one chapter. The last sections of this introductory chapter outline the formats that will be used to present the main and special findings, and specifies the body of literature that has been used as a point of reference and comparison for the study findings, and notes the different use of literature with reference to the main and special findings.

6.2 DATA COLLECTION AND ANALYSIS PROCESS

I collected and analysed the data according to the methods described in Chapter 5 on research design. The findings presented here predominantly use coded text segments that capture the meaning of the data collected, rather than replicating the respondents' words verbatim – in other words, they highlight the concept involved rather than the exact words used (Stebbins, 2001). Verbatim quotations, however, have been used selectively to illustrate a concept or the context in a particular case. The data collected concentrates on potential sources of competitive advantage relative to close competitors. The point of reference is thus different from the one indicated by the RBV, which suggests that a competitive advantage exists when a firm creates more economic value than the marginal competitor, that is, the "least efficient competitor capable of breaking even" (Peteraf & Barney, 2003, p. 315). As highlighted in Chapter 5, the concept of marginal competitor is difficult to operationalize, since respondents may be unable to identify their marginal competitor or may be unfamiliar with that competitor's practices. Hence, respondents were asked to make comparisons to close competitors or groups of competitors they deemed relevant. The study thus focuses on potential sources of

superior performance relative to close competitors and ignores other potential sources of superior performance relative to marginal competitors.

In order to meet the confidentiality requirements of the study, I have anonymized, abstracted, or, where necessary, excluded from the report any information that could directly or indirectly identify participating firms (cases) or participating persons (respondents). Special care was exercised, since the case sample was mainly drawn from Swiss companies: as Switzerland is a relatively small country, a company's identity might be inferred on the basis of relatively trivial case information, such as firm size and industry. Obviously, this limits the amount of detail that the study can reveal regarding cases, respondents, and contexts, and the implications of these research conditions are further discussed in Chapter 18 (conclusion). Such details as can be revealed regarding cases and respondents are provided in Appendix I and Appendix II.

As discussed in Chapter 5, the data was collected through semi-structured interviews. In total, 26 respondents from 11 firms were interviewed in the period between October 2006 and July 2007. Interviews were conducted at the respondents' workplaces, and lasted between 50 minutes and 2 hours 15 minutes. I voice recorded all the interviews and subsequently transcribed them verbatim, with the exception of one interview where technical mishaps prevented recording and which was therefore transcribed from notes immediately after the interview had taken place.

I then proceeded to analyse the collected data through a set of analytical steps. First, I wrote up interview summaries. Second, I analysed the interviews through an iterative process of coding, clustering, exploring, ordering and relating data. The analytical process made use of qualitative data analysis software packages (atlas.ti and Nvivo) and involved the development of matrices and integrative conceptual diagrams to draw and verify conclusions, and to report findings. Figure 15 provides a schematic overview of the components used to develop theoretical propositions.

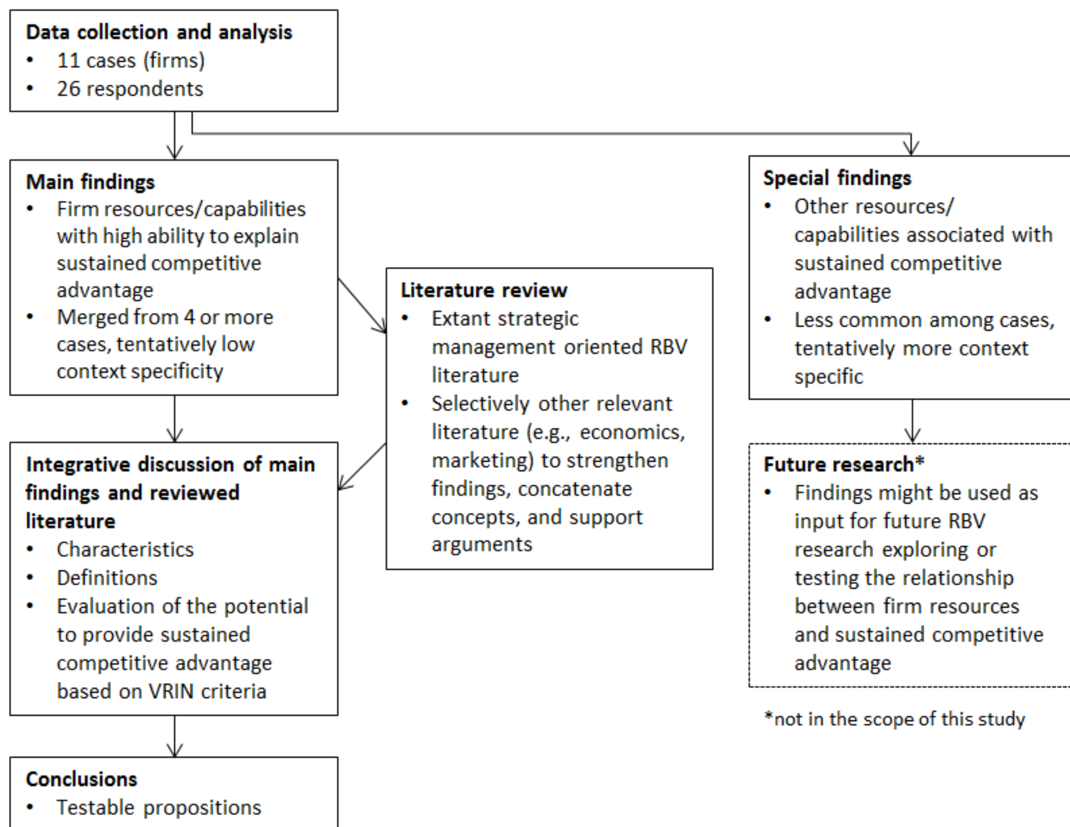

Figure 15: Main components of building theoretical propositions: study findings, literature review, and integrative discussion

6.3 OVERVIEW OF FINDINGS

The analysis of the data resulted in the identification of the following set of resources as the ones most closely associated with sustained competitive advantage (Table 12).

Table 12: Findings listed according to their ability to explain competitive advantage

Findings	Resource type	In which cases a competitive advantage?										
		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
Main findings												
Firm reputation	A	x	x	x	x		x	x			x	x
Firm culture	A	x	x	x	x	x		x	x	x	x	x
Brand reputation	A	x	x	x	x	x	x	x	x			x
Management team	A		x		x	x		x		x	x	x
Employees	A	x	x	x	x			x		x	x	
Relationships	A		x	x				x	x		x	x
Innovation capability	C	x		x	x	x	x	x	x	x	x	x
Controlling employee fluctuation	C	x	x								x	x
National reputation	A					x	x		x			x
Special findings												
Speed, efficiency and comprehensiveness	C							x				x
Brand management	C		x			x	x					
Balancing localization and standardization	C				x							
Expanding into geographical markets	C									x		
Selling products and services with a complex value proposition	C			x								
Coordinating knowledge, skills and relationships to close deals	C	x										
Marketing of innovations	C					x				x		
Providing products and services on a global scale	C			x				x				
Providing products and service through multiple channels	C			x								

Legend: A = asset, C = capability or competence

In accordance with a process described by Stake (2006), findings from the individual cases were merged and ranked according to their ability to answer the main research question (see Section 5.2.3). The findings were classified into main findings and special findings. The main findings consist of assets and capabilities that were identified as important competitive strengths that are relatively difficult to imitate and substitute, and that were mentioned in four or more cases. The second group, special findings, contains findings that emerged in only a few cases, and that may tentatively be thought of as specific to particular contexts. The main findings formed the material for the theoretical propositions I developed. As indicated in Figure 15, each finding was developed over a series of steps. First, I analysed the collected data to extract a series of candidates for potential sources of competitive advantage. Second, I conducted an examination of the relevant literature. Third, I juxtaposed the literature and the findings of my own research, and carried out a structured evaluation of the capacity of each major finding (i.e., asset or capability) to provide a sustained competitive advantage based on

resource-based logic (VRIN criteria). The conclusions I have drawn on the basis of this examination are formulated as testable propositions, and are listed below.

Propositions related to firm reputation:

- A distinctive and favourable firm reputation is a source of sustained competitive advantage when the net benefits of an exchange relationship (single exchange or a series of interrelated exchanges) for the exchange partners (e.g., customers, suppliers, contractors, and investors) are uncertain.

Propositions related to firm culture:

- A distinctive and appropriate firm culture is very likely to be a source of sustained competitive advantage when it is (1) employee oriented, (2) goal oriented, and (3) consistently operationalized.

Propositions related to brand reputation:

- A brand reputation is a source of sustained competitive advantage if brand associations are cumulatively favourable, strong, and nonsubstitutable, and distinctive individually or in combination.

Propositions related to the management team:

- Distinctive and favourable management team characteristics (skills, knowhow, experience, mentality, and perspective) are likely to be a source of sustained competitive advantage if (1) they are imperfectly mobile, (2) their associated rents are imperfectly appropriable by management team members, and (3) their imitability is uncertain (e.g., due to path dependency, causal ambiguity, social complexity, or asset interconnectedness).

Propositions related to employees:

- Rare characteristics of human resources (skills, knowhow, experience, mentality) are likely a source of sustained competitive advantage, when they are specialized or relatively immobile.

Propositions related to relationships:

- Close relationships can be a source of temporary competitive advantage when they provide an effective way to obtain, exchange, or share valuable resources, or to differentiate products and services.
- Enduring relationships contribute to economic value when they decrease uncertainty or increase (interorganizational) efficiency.
- Relationships characterized by trust form a necessary but not sufficient condition for competitive advantage when exchange vulnerabilities exist.
- In cooperative relationships, partner resources create economic value when they are complementary or supplementary, and offset the effects of surplus and wasteful resources.
- In cooperative relationships, partner commitment contributes to firm performance when the best way of realizing desired relationship goals is uncertain.
- In cooperative relationships, partner compatibility contributes to firm performance; some level of partner compatibility is a necessary condition of relationship performance.
- In cooperative relationships, an appropriate and effective governance structure is a necessary condition for firm performance.
- Close and enduring relationships characterized by trust are a source of competitive advantage (a) when they provide access to complementary or supplementary resources that also offset the effects of surplus and wasteful resources, (b) when they increase (interorganizational) efficiency, decrease uncertainty, or help to differentiate products or services, and (c) when exchange vulnerabilities exist.

Propositions related to innovation capability:

- Innovation capability (i.e., the ability to combine resources in novel, more effective ways resulting in new or improved goods and services, operational processes, and forms of management) is a necessary condition for competitive advantage in dynamic environments.
- A distinctive innovation capability is a source of sustained competitive advantage in dynamic and non-dynamic environments.

Propositions related to controlling employee fluctuation:

- The ability to control employee fluctuation is likely to be a source of sustained competitive advantage if it avoids an unnecessary erosion of valuable human resources or if it minimizes change-related transaction costs.

Propositions related to national reputation:

- A weak (marketing) link to a distinctive and favourable national reputation is a source of competitive parity.
- A semi-strong (production, sourcing) link to a distinctive and favourable national reputation is a source of competitive parity.
- A strong (historical) link to a distinctive and favourable national reputation is a source of sustained competitive advantage.

6.4 REPORTING FORMAT OF MAJOR FINDINGS

The major findings listed above will be presented and discussed in individual chapters that all have the following structure (a-g).

(a) *Chapter introduction*. Describes the purpose and structure of the chapter.

(b) *Definition*. Briefly defines the concept that is at the heart of the finding (firm culture, brand reputation, etc.). These definitions have emerged inductively from the study, and are presented at the beginning of each chapter simply to help the reader navigate the chapter; that is, their presentation at the outset should not be taken as an indication that the concepts were defined a priori.

(c) *Findings*. Provides a detailed description of the findings of the present study. Highlights characteristics of the identified resource, describes identified concepts and their links to firm performance, and elucidates the characteristics that make the resource difficult or costly for competitors to imitate or substitute.

(d) *Literature*. Reviews the relevant RBV literature to reinforce the finding and to relate the finding to the existing literature (Eisenhardt, 1989). It also helps to better saturate identified concepts and elucidate linkages between these concepts and competitive advantage. The literature consulted was divided into two tiers: (1) strategic management oriented RBV literature, and (2) other RBV literature in other disciplines, or management literature related to the findings identified.

The body of literature in tier 1 was established by searching the ABI/INFORM complete database with the following search parameters: (i) document title or document abstract containing the terms "RBV", "RBT", "resource-based view", "resource-based theory", or "resource-based perspective"; (ii) publication dates between 1984 and 2010; and (iii) publication types equal to "scholarly journals". The search process yielded a pool of 1280 articles published in 99 journals. The set of journals was further restricted to journals most closely associated with the field of strategic management. This yielded a pool of 292 articles published in 13 journals (Table 13).

Table 13: Tier 1 reference literature: scholarly journals in the field of strategic management publicizing RBV articles in the period between 1984 and 2010

Journal	Articles
Strategic Management Journal	86
Journal of Management	34
Journal of Management Studies	29
Academy of Management Journal	23
Academy of Management Review	22
Journal of Business Research	22
Management Decision	18
Organization Science	17
European Management Journal	13
Managerial and Decision Economics	9
Decision Sciences	8
Long Range Planning	6
Management Science	5

This body of literature was complemented by strategic management oriented RBV publications in books. This included, for instance, Barney (1997), Barney and Arikan (2001), Barney and Clark (2007), and Grant (2008).

The second tier of literature contained RBV-related literature discussing the subjects identified by the study. I used this body of literature selectively to reinforce findings, to elucidate concepts, and to support arguments in the discussion section. For example, the discussion of brand reputation draws selectively on marketing literature that describes brand-related concepts and the links between these concepts and firm performance. Likewise, I occasionally drew on the strategic human resource management literature to discuss the findings related to human resources, such as firm culture, management teams, and employees.

(e) *Integrative discussion of findings and literature*. Synthesizes study findings with the reviewed RBV literature. Defines firm resources, describes the distinctive attributes of the resource, and evaluates, based on VRIN criteria, the resource's ability to provide a sustained competitive advantage.

(f) *Propositions*. Draws conclusions from the discussion and formulates them as testable propositions.

(g) *Chapter conclusion*. Briefly reviews the content covered in the chapter.

6.5 REPORTING FORMAT OF SPECIAL FINDINGS

In addition to the major findings, the study also resulted in a set of special or minor findings that help to explain superior firm performance. However, relating these findings to the literature and carefully assessing their potential to provide a sustained competitive advantage exceeds the scope of a single dissertation. Therefore, the discussion of these findings is more general and will not be based on an extensive literature review. These special findings, however, may be concatenated with other RBV research that seeks to explain superior firm performance. The structure of the special findings chapter is as follows: (a) chapter introduction; (b) findings; and (d) chapter conclusion.

6.6 LINKS BETWEEN CONCEPTS

Chapter 17 will summarize the main findings in a graphical format. Although the study is exploratory and not explanatory, this chapter indicates the main links between the concepts.

The implications of the present study in terms of research and practice are discussed in detail in Chapter 18 (conclusion) of this dissertation.

6.7 CHAPTER CONCLUSION

This chapter provided a general introduction to the findings and discussion chapters of the dissertation. The chapter commenced with a brief summary of the data collection analysis process, and next provided an overview of study findings. These findings represent merged case findings, classified and ranked according to their ability to answer the main research question (Stake, 2006). The next point to be taken up was the reporting format of the findings; here, it was noted that major findings will be presented

and discussed in individual chapters, whereas special findings will be presented together and accompanied by a general discussion, after which a final chapter will summarize the main concepts, the links between them, and their links to competitive advantage.

In the following chapter, *firm reputation* will be presented and discussed as the first major finding that elucidates why performance differs among competing firms.

7 FINDINGS AND DISCUSSION: FIRM REPUTATION AND SUSTAINED COMPETITIVE ADVANTAGE

7.1 CHAPTER INTRODUCTION

This chapter presents the finding that a *distinctive and favourable firm reputation* is a major source of sustained competitive advantage. In particular, it can reduce perceived risks and exchange-related costs in settings in which the value of a product, service, or exchange relationship cannot be ascertained in advance. Firm reputation, respondents noted, is commonly built up over time, and is sometimes closely related to the specific and even idiosyncratic history of the firm; on the other hand, firm reputation also consists of stakeholders' judgments regarding concrete facts like market share or past performance. The complex combination of associations and tangible realities that firm reputation embodies makes it very difficult for competitors to duplicate.

The chapter commences with a brief discussion that defines firm reputation and examines its distinctive characteristics. It continues with a detailed description of the findings of the study, which is then followed by a review of the relevant literature. The findings and the literature are then synthesized in a section that also evaluates resource characteristics (VRIN). Finally, the chapter draws conclusions in the form of testable propositions.

7.2 DEFINITION AND DISTINCTIVE CHARACTERISTICS OF FIRM REPUTATION

The definition of firm reputation that has inductively emerged from this study is as follows: Firm reputation is an intangible firm asset that consists of the sum of perceptions about the firm held by customers, suppliers and other stakeholders of the firm. This definition draws on definitions current in the RBV literature, particularly on Weigelt and Camerer's (1988) and Fombrun's (1996).

Although firm reputation shares some characteristics with brand reputation and national reputation, there are also some important differences between these assets that merit separate treatment. They are similar in that they are reputational assets that represent stakeholders' perceptions. However, the differences are substantial as well. First, these perceptions relate to different subjects (a firm, brand, or nation). Second, firm

stakeholders, brand stakeholders, and nation stakeholders represent different sets of stakeholders, even if these sets may overlap to some extent. Third, firm reputation and national reputation are relatively fixed while brand reputation is less fixed, thus creating a significant difference in resource immobility. Fourth, firm reputation and national reputation appear to concentrate on signalling competence and cultural aspects, while a brand reputation in addition signals value with regard to the product or service, and thus there is a difference in the function of the asset. Finally, there is also a difference in terms of asset development and control: firm reputation as well as brand reputation are accumulated via firm internal efforts, while national reputation is developed by various constituencies including the nation's firms and institutions. National reputation is thus an asset that a firm can access, but not directly control. These differences will be discussed in detail in this chapter as well as in Chapters 9 and 15.

7.3 FINDINGS

Respondents from all 11 firms (cases) suggested that *firm reputation* contributes to firm performance. In one case (C6), respondents considered it a source of competitive advantage, and in seven cases (C1, C2, C3, C4, C7, C10, C11), a source of sustained competitive advantage. While one might not be surprised to find that firm reputation contributes to performance, this study has identified important subtle aspects of that linkage that are worth considering in greater detail.

The diagram below provides an overview of the concepts related to firm reputation and competitive advantage.

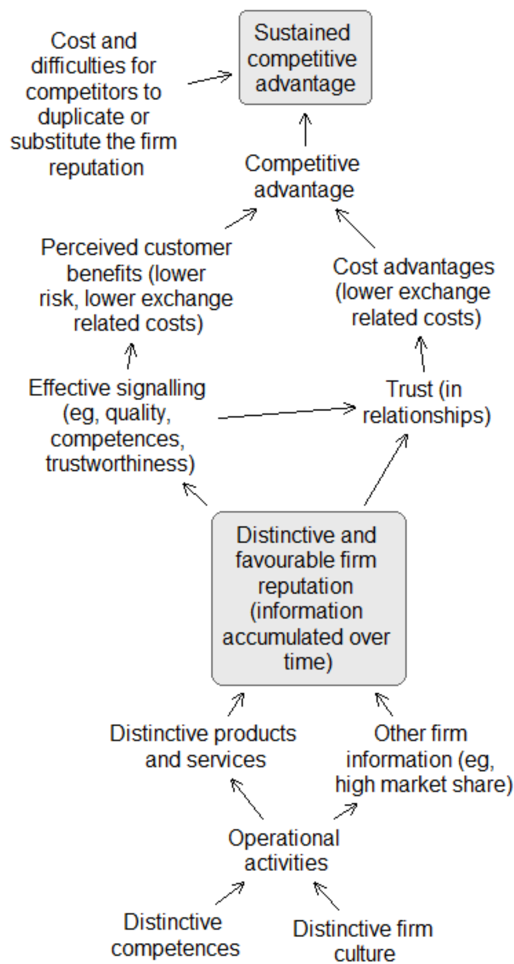

Figure 16: Integrative diagram for "firm reputation": concepts and their links to sustained competitive advantage

Competitive advantage stems from *customer benefits* and *cost advantages*. *Customer benefits* come from *effective signalling,* which in turn is supported by a *distinctive and favourable firm reputation*. A *distinctive and favourable firm reputation* represents the stock of firm information accumulated by stakeholders over time. Such information comes from at least two sources: *distinctive products/services* and *other firm information*. Both *distinctive products/services* and *other firm information* originate from the firm's *operational activities* over time, which are in turn shaped by the firm's *distinctive competences* and *distinctive culture.*

The second source of competitive advantage*, cost advantages,* includes lower exchange-related costs. Lower exchange-related costs result from *trust in relationships* that in turn is supported by a *distinctive and favourable firm reputation*. A necessary but not sufficient condition for *trust* is *uncertainty* about the effective costs and benefits of a product,

service, or exchange relationship. In the following, I will describe these concepts and their links to competitive advantage in more detail.

In case C1, for example, respondents suggested that the reputation of their firm is a competitive strength. Distinctive attributes of their firm's reputation include *reliability*, *integrity,* and *customer orientation*.

The first attribute, *reliability*, appears to result from a relatively broad competence: the ability to constantly meet customer expectations. R2 (C1), for example, suggested that the firm is more reliable than its competitors, which has a positive impact on reputation. In a similar vein, R1 (C1) asserted that the firm's reputation is a consequence of its ability to meet customer expectations over time.

The second distinctive attribute of the reputation of the firm in case C1, *integrity*, seems to have its roots in the company's distinctive firm culture. Integrity may be understood here as the level of congruence between what firm members think, say, and do: the link between saying (setting expectations) and doing (delivering against expectations) is of obvious importance to customers, and thus a reputation for integrity is a competitive strength for C1. Respondents indicate that C1's level of integrity is relatively high. R1 (C1) emphasized, that managers and employees, for example, would not make dubious promises to customers, such as offering them unrealistic delivery times. By contrast, some of C1's close competitors appeared to have had more difficulty in attaining the necessary level of congruence between saying and doing over time.

A third distinctive attribute of C1's reputation relates to the firm's pronounced orientation towards customer goals. A strong *customer orientation* suggests that the firm will not engage in opportunistic behaviour. Thus, a reputation for *customer orientation* may increase customers' confidence that their interests and problems will be taken seriously. Expressed in more economic terms, a distinctive firm reputation for customer orientation increases trust (customer confidence), which in turn positively affects costs (transaction cost), because involved parties do not need to establish other costly mechanisms to govern the exchange. All these attributes make C1's firm reputation distinctive.

Furthermore, C1's reputation appears to be difficult to imitate a number of reasons. First, it relies on a *path-dependent* development process. A firm reputation appears to be built out of the information about the firm that stakeholders receive, filter, interpret, and

mentally store over time. The information that C1's stakeholders receive is a reflection of C1's idiosyncratic development path over time – a path that commenced over 100 years ago. Obviously, competing firms with completely different development paths cannot replicate the accumulation process of C1's firm reputation. A second reason is *causal ambiguity*. A competitor may identify and describe the main characteristics of C1's reputation by researching the perceptions of C1's customers, suppliers, partners, investors, and other stakeholders. However, knowledge about these characteristics may not suffice to fully explain the causal links between these characteristics and superior firm performance. For instance, a competitor may only develop a vague understanding of how C1 effectively uses this asset together with other resources to create economic value.

The final reason why reputation is difficult to imitate is *social complexity*. Firm reputation may be understood as the sum of perceptions about a firm held by various stakeholders. While such perceptions are partly built on the stakeholders' own observations, they also draw on the observations and interpretations of other actors like mass media, influential commentators, and so on. These perceptions are thus the result of a cognitively and socially complex accumulation process. All this suggests that C1 may enjoy persistently superior economic returns that stem from its distinctive firm reputation.

In case C7, respondents also indicated that their firm's reputation is a competitive strength. A distinctive attribute of the firm's reputation is *market leadership*. R17 (C7) noted that C7 is leader in its product markets – in some regions, its market share reaches 80 per cent. A reputation for market leadership seems to signal trustworthiness to potential buyers. The same respondent suggested that a buyer perceives the risk of negative outcomes as low when choosing the market leader. This is also manifest at the level of individual decision-makers: Choosing a less established supplier may result in the individual decision-maker being criticized if problems or performance issues with the selected supplier arise. Thus, decision makers have a clear incentive to choose a market leader. In more formal terms, the link between firm reputation and firm performance may be interpreted as follows: a reputation for market leadership signals competence and trustworthiness, both of which increase trust, which in turn curbs transaction-related costs (no need to establish other costly governance mechanisms). Lower transaction-related costs translate into benefits for customers and cost advantages for the firm, which ultimately result in a competitive advantage.

Of course, market leadership is only one aspect of C7's reputation, but it is an important one. It is by definition *rare*, since only one firm, or a few firms, can concurrently be market leaders in an industry. In other words, the resource is highly inelastic in supply. Moreover, a reputation for market leadership is also highly immobile, which means that the asset cannot be traded in factor markets or easily transferred to other firms.

A distinctive firm reputation for market leadership reflects C7's leading market position over time. It is *path-dependent* and thus difficult for competing firms to duplicate. However, a competitor might attempt to imitate the resource to some extent. One approach is to gradually increase one's market share by outperforming other market participants. A second approach is "buying" market share through aggressive pricing. Finally, a third option is to acquire competing firms or their businesses (M&A transactions). The first approach clearly depends on the successful development of distinctive competences and is therefore rather difficult and time-consuming. The second approach is costly. The third approach critically depends on the availability and efficiency of corresponding factor markets for "market share". In case C7, this means that a competitor would have to overtake hundreds of smaller competitors or buy the businesses of some larger firms in the industry. Despite such M&A efforts, simple arithmetic suggests that a competitor could obtain at best a fraction of C7's market share. In short, a distinctive firm reputation for market leadership is difficult or costly to imitate.

In case C4, respondents also claimed that firm reputation is an important contributor to firm success and a competitive strength. Distinctive attributes of their firm's reputation include *reliability* (meeting deadlines) and *competence in making and delivering their products and services* (e.g. professionalism, cycle time). Respondents suggested that such a reputation is not only rare among competing firms but also relatively difficult to duplicate, since it relies on a path-dependent and time-consuming accumulation process. According to R11 (C4), competitors hoping to ascend to the same league need to build up a track record in their home market before they expand geographically. A second requirement is that they must master the processes – in other words, master meeting deadlines, professionalism, and cycle times.

In case C10, respondents indicated that the reputation of their firm also contributes to the firm's success. One distinctive attribute of C10's reputation is the ability to cope with large production contracts. This suggests that firm reputation is a direct outcome of

C10's distinctive competence in production and logistics. Further distinctive firm attributes include *commitment*, *reliability,* and *consistency*. These attributes reflect the firm's competences and past behaviour.

Respondents further suggested that the firm's distinctive reputation instils trust, which is important in winning new customers. R24 (C10) believes that much of the firm's success comes from new customers convinced that the firm has the necessary competence to cope with large production contracts. An important function of firm reputation is thus signalling trustworthiness and distinctive competences. From an economic point of view, the effects of C10's distinctive firm reputation can be interpreted as follows. A distinctive and favourable firm reputation increases trust, which in turn reduces transaction costs because it avoids other costly governance mechanisms. Lower transaction costs, in turn, contribute to competitive advantage.

Finally, respondents from C8 also suggested that the reputation of their firm is a competitive strength. A distinctive attribute of C8's reputation is *reliability*. This seems to be an indirect outcome of its competence in producing and delivering products and services. R19 (C8) emphasizes that the firm's reliability compared to other rivals is relatively high.

7.3.1 SUMMARY

A distinctive firm reputation is an important source of sustained competitive advantage. It represents the stock of firm information accumulated by stakeholders over time. Such information comes from at least two sources: *distinctive products/services* and *other firm information* (e.g. high market share). Both *distinctive products/services* and *other distinctive firm outcomes* originate in the firm's *operational activities* over time, which in turn are shaped by the *firm's distinctive competences* and *distinctive culture*.

Important distinctive characteristics of firm reputation include *perceived reliability, integrity, customer orientation, competences in production and distribution of goods and services,* and *market leadership.* All of these were mentioned by respondents in one or more cases; brief examples and summaries are given below.

Perceived reliability: Respondents from C1 suggested that reliability results from the firm's competence in meeting customer expectations over time. This potentially encompasses a wide array of smaller, interlinked firm competences.

Perceived integrity: Also noted by respondents in C1. A perception of integrity seems to be one outcome of firm culture. Integrity may be understood as the degree of correspondence between what the firm says (setting expectations) and what the firm does (delivering against expectations). The attribute is similar to the perceived reliability attribute, but it has a stronger emphasis on firm culture.

Perceived customer orientation: Also an attribute noted by respondents in case C1. A pronounced customer orientation suggests that the firm does not behave opportunistically and shows commitment to addressing customer goals and problems.

Perceived competences in producing and delivering products and services: Mentioned in a number of cases. In one case, respondents stated that the firm earned a positive reputation from its ability to cope with large production contracts. In another case, respondents highlighted that distinctive competence characteristics – such attributes as meeting deadlines, professionalism and process cycle times – contributed to the firm's distinctive reputation.

Perceived market leadership: Noted by respondents in case C7. The respondents suggested that the buyer perceived the risk of negative outcomes as low when choosing the market leader. Furthermore, there appear to be positive dynamics in decision making, since choosing a market leader may be less risky for individual decision makers.

The analysis suggests that a distinctive firm reputation contributes to firm performance in two main ways. First, it increases *trust*. In a number of cases the suggestion was made that trust in relationships, particularly relationships with customers, is a necessary condition for firm performance. Many of the above-mentioned distinctive attributes of firm reputation promote trust. Trust appears to be relevant in settings where customers and other market partners cannot fully appreciate the effective value and cost over the whole life cycle of a product, service, or – more generally – market relationship. In case C1, for example, a product's life cycle can span well above 20 years. Contracts may specify some of the rights and obligations in such an exchange, but may fail to cover aspects (such as the commitment level of employees) that are difficult to measure or specify but that nevertheless have a significant impact on customer benefits and costs. In more formal terms, a distinctive firm reputation increases trust, which in turn reduces transaction costs because it avoids the need for other costly governance mechanisms. Lower transaction costs, in turn, contribute to competitive advantage.

A second positive effect on firm performance may be called *signalling effectiveness*. A distinctive firm reputation can signal to customers differentiation advantages like high quality or lower risks. Thus, a distinctive firm reputation may reduce overall signalling costs.

A distinctive and favourable reputation reflects a firm's evolutionary path. To the extent that such evolutionary paths differ among a set of competing firms, a distinctive firm reputation remains rare (i.e., they are inelastic in supply). Some of these attributes, such as market leadership for an extended period of time (e.g. C7), are by definition rare. Furthermore, a firm reputation is also highly immobile, that is, it cannot be traded or transferred to other firms. An exception may the transfer of aspects of a firm reputation through corporate transactions (i.e., M&A), which are rather costly, time-consuming, and imperfect.

Respondents also suggested that a distinctive and appropriate firm reputation may be difficult to imitate. First, reputation is built over time – in the case of C1, for example, over more than a century – and the idiosyncrasies involved in such a long history are difficult for competing firms to imitate. Second, there is *causal ambiguity* regarding reputation: though a competitor may list the characteristics of a particular firm with a strong reputation, it may have a harder time uncovering the causal link between these and superior firm performance. Third, reputation is *socially complex*: the perceptions of stakeholders are the result of not only their own experiences with the firm but also, for example, of the way in which the firm is talked about in the media.

In terms of resource non-substitutability, there is no direct indication in the present study that other resources, or bundles of resources, could play the role of a distinctive and favourable firm reputation in attaining the same level of firm performance. However, a competitor may try to substitute a particular favourable firm reputation with a different firm reputation that has similar effects on firm performance. As indicated above, a reputation needs to be developed through a path-dependent accumulation process, which may be costly and time-consuming.

Furthermore, a competitor may try to compensate some of the functional value of a firm reputation, such as building trust, with other governance mechanisms, such as legally enforceable contracts. However, contracts are not adequate substitutes in all situations. For example, in highly uncertain exchange settings, where significant risks of

opportunistic behaviour exist, a firm may not be able to attain the necessary level of trust with contractual agreements.

Thus, the study supports the conclusion that a *distinctive and favourable firm reputation* is a source of sustained competitive advantage.

7.4 LITERATURE

The literature on firm reputation is extensive. A firm's reputation broadly conceived encompasses all the perceptions that customers and other stakeholders have of a firm. Weigelt and Camerer (1988, p. 443), for example, define firm reputation as "a set of attributes ascribed to a firm, inferred from the firm's past actions". A similar definition is provided by Fombrun (1996, p. 72), who characterizes reputation as "a perceptual representation of a company's past actions and future prospects that describes the firm's overall appeal to all of its key constituents when compared with other leading rivals."

A concept similar to *firm reputation* is *firm image*. According to Gray and Balmer (1998) a "[firm image] is the immediate mental picture that audiences have of an organization. [Firm] reputation, on the other hand, indicates a value judgement about the [firm's] attributes. [Firm] reputations, typically, evolve over time as a result of consistent performance, reinforced by effective communication, whereas [firm] images can be fashioned more quickly through well-conceived communication programmes" (p. 697). In a similar vein, Rindova (1997) suggests that firm image is a temporary and firm reputation a more enduring, cognitively more firmly rooted perception of the firm that gradually evolves from assembling, selecting, and interpreting a series of images.

Firm reputation can be classified as an intangible, strategic asset (Amit & Schoemaker, 1993; Boyd, Bergh, & Ketchen, 2010; Hall, 1993; Roberts & Dowling, 2002; Sanchez et al., 1996a; Shamsie, 2003), or what Itami and Roehl (1987) call an invisible asset. Invisible assets are information-based; compared to tangible assets, they possess a relatively high potential for competitive advantage, because they serve both as an input and an output of firm activity, can be used simultaneously and in different forms, and are relatively immune to quick replication as they require time to develop (Itami & Roehl, 1987). This is also reflected in the more systemic conceptualization of the firm as an open system in the competence-based management (CBM) perspective, which suggests that a firm reputation is developed in markets through a firm's product offerings and its interactions with market partners, which then flows back into the organization as a

resource (Sanchez & Heene, 1996). The CBM literature suggests that a favourable firm reputation is indispensable for accessing or acquiring valuable and reasonably priced resources in resource markets (Sanchez & Heene, 2004).

Where does a favourable firm reputation come from? A firm reputation results from a firm's competence in making and delivering quality products and services (Rindova et al., 2005) and its ability to convey an image that furthers its status and legitimacy among its constituencies (Fombrun & Shanley, 1990; Rao, 1994). Firm-related information that affects firm reputation includes strategy and competitive positioning signals, performance and risk signals, dividend policy signals, institutional signals (e.g. firm size and ownership), and social and environmental policy signals (Fombrun & Shanley, 1990; Michalisin et al., 1997). A central role for generating a favourable firm reputation is also ascribed to the firm's culture. The CBM literature suggests that a culture grounded in "honesty" helps to establish a reputation of trustworthiness that in turn increases trust and eventually also the commitment of stakeholders to the goals of the firm (Sanchez & Heene, 2004).

Furthermore, the RBV literature suggests that a favourable firm reputation has a relatively high potential to increase firm performance (Amit & Schoemaker, 1993; Fombrun, 1996; Itami & Roehl, 1987, 1987; Roberts & Dowling, 2002, 2002; Weigelt & Camerer, 1988). A firm reputation that signals quality can increase the customer's perceived value when quality attributes such as reliability, durability, or usability are difficult to evaluate before a good or service is bought and used (Shapiro, 1983; Weigelt & Camerer, 1988). In addition, a favourable reputation can increase trust in an exchange relationship and thus reduce governance costs (Barney & Clark, 2007; Roberts & Dowling, 2002), increase marketing efficiency and effectiveness (Dowling, 2001; Goldberg & Hartwick, 1990; Porter, 1985), increase the image of a customer by associating the customer with an esteemed firm (Rindova et al., 2005; Roberts & Dowling, 2002), attract high-quality employees (Dowling, 2001), reduce employee costs (Fombrun, 1996), protect a first-mover advantage (Rumelt, 1984), enhance returns from investments related to product quality (Benjamin & Podolny, 1999), and help to establish a leading market position (Shamsie, 2003). However, the literature also indicates that an array of contextual factors, such as uncertainty, customer type, product type, product price, and purchase frequency can moderate these effects on firm performance (e.g., Shamsie, 2003) .

Despite these potentially moderating effects, empirical research suggests that firm reputation and firm performance are positively related (Aaker, 1989; Boyd et al., 2010; Deephouse, 2000; Eberl & Schwaiger, 2005; Hall, 1993; Landon & Smith, 1997; McGuire, Schneeweis, & Branch, 1990; Roberts & Dowling, 2002). It has also been suggested that the link between firm reputation and firm performance is bidirectional, that is, that these two variables mutually reinforce each other (McGuire et al., 1990), implying that the reputations of leading firms become gradually more distinctive in areas related to performance.

The RBV literature suggests that a positive firm reputation cannot be bought in markets and consequently needs to be developed progressively over time (Dierickx & Cool, 1989; cf. Barney, 1986b). For instance, a reputation for trustworthiness is earned through a series of situations in which the firm convincingly demonstrates that it does not exploit the vulnerabilities of other market participants to its own advantage (Barney & Hansen, 1994).

The RBV literature additionally indicates that a positive firm reputation is also relatively difficult and costly to imitate. First, the development of a firm reputation is generally path-dependent and can be tied to specific historical conditions (Barney, 1991). Second, a positive firm reputation can be considered an outcome of complex and enduring social interactions between the firm and its various constituencies – it is thus a socially complex asset (Barney, 1991; see also Klein, Crawford, & Alchian, 1978; Porter, 1980). Third, since a firm reputation is a complex, intangible construct, its links to firm performance may only be imperfectly understood – that is, the asset exhibits some level of causal ambiguity (Roberts & Dowling, 2002; cf. Barney, 1991; Boyd et al., 2010). All of this suggests that a favourable firm reputation is imperfectly imitable.

Furthermore, some scholars contend that a positive firm reputation cannot easily be replaced by a strategically equivalent resource (e.g., Shamsie, 2003), while others argue that contractual agreements such as guarantees function in a similar fashion as firm reputations in that they reduce risks in economic exchanges (Klein et al., 1978). Based on the observation that firms use both contractual agreements and reputations simultaneously, however, Barney (1991) believes that these two governance mechanisms differ from each other from a psychological point of view, and thus are unlikely to be perfect substitutes.

7.5 INTEGRATIVE DISCUSSION OF STUDY FINDINGS AND RELEVANT LITERATURE

I argue that a distinctive and favourable firm reputation meets all the necessary conditions for being considered a source of sustained competitive advantage – it is valuable, rare, imperfectly imitable, and imperfectly substitutable. These are discussed in more detail below.

7.5.1 EVALUATING VRIN: VALUE

As noted in the Summary section above, the analysis in this study found that a distinctive firm reputation contributes to firm performance by increasing trust and by increasing signalling effectiveness, that is, by causing customers to associate characteristics like high quality or low risk with the firm. These two findings are consistent with the RBV literature: several scholars have found that a positive firm reputation has a relatively high potential to increase a firm's performance (for references, see the literature review in Section 7.4). In particular, the RBV literature provides support for the finding that a favourable reputation can increase trust in an exchange relationship and thus reduce governance costs (Barney & Clark, 2007; Roberts & Dowling, 2002). There is also some support in the RBV, strategic management, and marketing literature that a favourable firm reputation can increase marketing efficiency and effectiveness (Dowling, 2001; Goldberg & Hartwick, 1990; Porter, 1985).

7.5.2 EVALUATING VRIN: RARENESS

The present study found that the rare attributes of firm reputation include perceived *reliability*, *integrity*, *customer orientation*, *competencies in production and distribution of goods and services*, and *market leadership*. Some of these attributes clearly reflect a firm's specific evolutionary path, and therefore are *rare*. One attribute, market leadership, is special insofar as it is by definition rare, that is, in a given industry only a subset of firms can lead a market for an extended period of time.

This finding, too, is consistent with the existing literature. The RBV literature in general suggests that "positive", "favourable", or "good" firm reputations are rare. They cannot be traded in resource markets and rely on a lengthy development process, hence they are rather inelastic in supply (Dierickx & Cool, 1989; cf. Barney, 1986b). What further underlines the immobile character of firm reputations is that they are at most moderately transferable to other firms. While it might be possible to transfer some

aspects of a favourable firm reputation through corporate transactions (i.e., M&A), it is clearly not possible to transfer a distinctive firm reputation in its entirety to another firm.

7.5.3 EVALUATING VRIN: INIMITABILITY

In the present study, respondents highlighted the inimitability of a distinctive and appropriate firm reputation, noting that the reputation often relies on characteristics that are impossible or at least costly for competitors to duplicate, like the specific history of the firm or its long-term market position. The RBV literature, too, stresses the inimitability that stems from the path-dependent, causally ambiguous, and socially complex nature of a firm's reputation: it is hard for a competitor to know what exactly causes a particular reputation and how that reputation influences firm performance, and even when this is known (or suspected), the costs or practical obstacles involved in imitation may be prohibitive (for references, see the literature review in Section 7.4).

7.5.4 EVALUATING VRIN: NON-SUBSTITUTABILITY

Apart from being difficult to imitate, a resource needs also to be imperfectly substitutable. The present study did not find any indication that a competitor might substitute other resources for firm reputation without incurring excessive costs, though there are some incomplete or relatively high-cost potential substitutes like replacing a reputation for trust with legally enforceable contracts. The literature also confirms the imperfect substitutability of reputation, noting, for instance, that contracts are psychologically different from a reputation for trust and therefore cannot have the same impact on firm performance (for references, see the literature review in Section 7.4 above).

Thus, a firm with a positive and rare firm reputation may enjoy superior returns for a long time due to path-dependency, causal ambiguity, social complexity and imperfect substitutability.

7.6 PROPOSITION

The study provides strong evidence that a *distinctive and favourable firm reputation* is a source of sustained competitive advantage, especially under particular circumstances. I therefore make the following proposition:

> *Proposition 1 – A distinctive and favourable firm reputation is a source of sustained competitive advantage when the net benefits of an exchange relationship (single*

exchange or a series of interrelated exchanges) for the exchange partners (e.g., customers, suppliers, contractors, and investors) are uncertain.

7.7 CHAPTER CONCLUSION

This chapter concentrated on *firm reputation* as a source of competitive advantage. It presented the findings of the study, reviewed the relevant literature, synthesized the study finding with that literature, assessed the potential of this resource to provide a sustained competitive advantage based on VRIN criteria, and finally developed conclusions in the form of testable propositions. The study provides strong evidence that a *distinctive and favourable firm reputation* is a source of sustained competitive advantage.

In the following chapter, *firm culture* will be presented as the next major finding that elucidates why performance differs among competing firms.

8 FINDINGS AND DISCUSSION: CULTURE AND SUSTAINED COMPETITIVE ADVANTAGE

8.1 CHAPTER INTRODUCTION

This chapter reports the finding that a *distinctive and appropriate firm culture* is a major source of sustained competitive advantage. While culture is not always easy to define, the respondents of the study argued that it is a significant factor that cannot be ignored. Respondents particularly highlighted that when a firm pays attention to and respects its employees, employees respond with loyalty and motivation, which significantly influences, for example, customer relations and efficiency, and through them, performance. Besides treatment of employees, respondents highlighted the usefulness of a culture of attention to and valuing of the customer's needs and goals. Culture, however, is not an asset that produces results automatically: respondents also pointed out that a firm needs to understand how to operationalize and take advantage of the unique and positive traits of its firm culture.

The chapter is organized as follows. After first offering a brief definition of firm culture, the chapter proceeds to discussing the findings of the study in detail. It then examines the existing literature on the subject, and next synthesizes the literature and the findings of the present study, while also using RBV logic to evaluate the potential of the identified resource, firm culture, to provide a sustained competitive advantage. Finally, it develops conclusions in the form of a testable proposition.

8.2 DEFINITION

In this study I follow the definition of firm culture in Barney (1986a, p. 657) as a "complex set of values, beliefs, assumptions, and symbols that define the way in which a firm conducts its business".

8.3 FINDINGS

For all the investigated firms (cases), firm culture is an important contributor to firm performance. In ten cases, respondents reported that culture provides a competitive advantage, and, in nine of these, that this advantage is likely to be sustained. This section will demonstrate that though it is not surprising that firm culture should contribute to

firm performance, a number of significant though subtle aspects of firm culture make it worthy of more careful examination.

Respondents suggested that all firms have a culture from the very first day on – in other words, one cannot say that some firms lack a firm culture, or that some firms have better cultures than others, at least not in absolute terms. In their view, what determines the contribution of a firm culture to firm performance is rather a question of the extent to which that particular culture fits the firm's goals, strategy, and business environment. One of the respondents (R9-C3) pointed out that all firms have culture potential, just as they have innovation potential, which suggests that firms may have not only different cultures, but also different abilities to fully appreciate and realize potential benefits related to that culture.

As respondents conceded, however, cultural differences among competing firms are rather difficult to assess, since relevant data is hard to obtain and observations are sometimes difficult to interpret.

All these characteristics seem to suggest that culturally based advantages may be sustained over long periods of time, since it is difficult for competitors to duplicate the basis of these advantages. This makes culture a prime source of sustained competitive advantage.

The diagram below provides an overview of the concepts related to firm culture and competitive advantage.

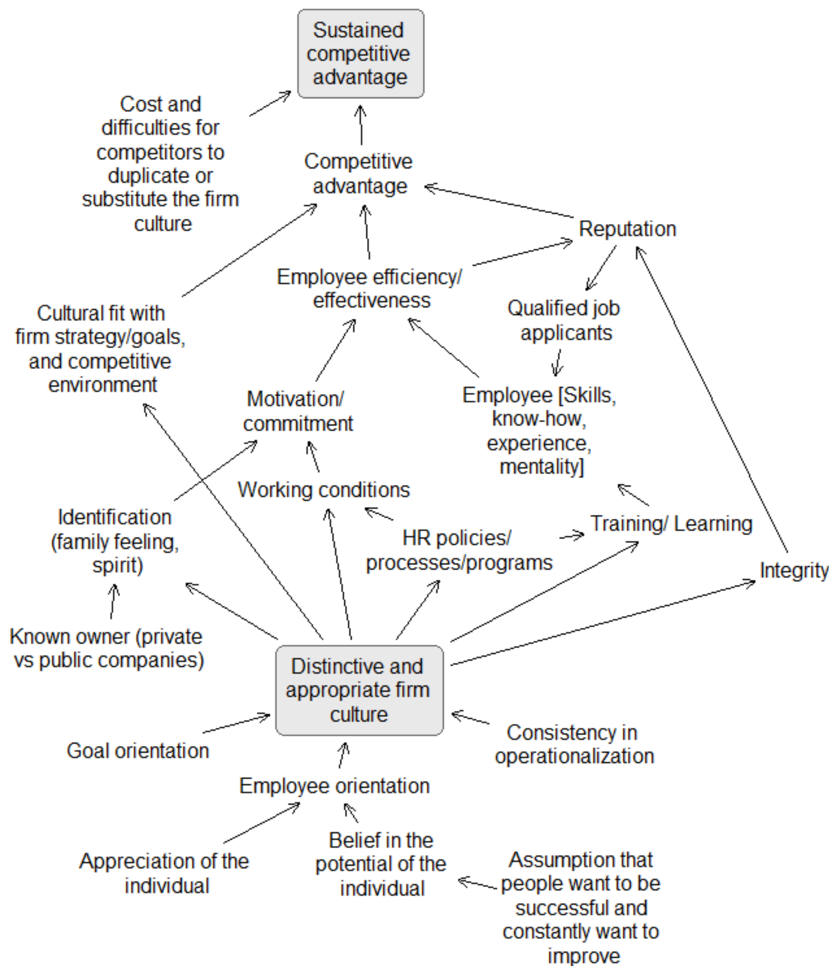

Figure 17: Integrative diagram for "firm culture": concepts and their links to sustained competitive advantage

On an abstract level, respondents suggested that the relationship between culture and competitive advantage is mediated by the firm's environment, goals, and strategy. On a more concrete level, culture seems to affect competitive advantage through a set of scenarios discussed below.

In the first scenario, a distinctive and appropriate culture leads to *employee identification*, which then leads to *employee motivation/commitment.* This, in turn, has a positive impact on *employee efficiency/effectiveness*, which ultimately leads to competitive advantage*.*

In the second scenario, a distinctive and appropriate culture contributes to productive *working conditions,* which lead first to *employee motivation/commitment*, then to *employee efficiency/effectiveness,* and eventually to competitive advantage.

In the third scenario, a distinctive and appropriate culture positively affects *HR policies, processes and programs*, which has two positive impacts. First, appropriate *HR policies, processes and programs* contribute to favourable *working conditions*. Favourable *working conditions* increase *employee motivation/commitment*; this then increases *employee efficiency/effectiveness,* which in turn leads to competitive advantage. Second, appropriate *HR policies, processes and programs* also have a positive impact on *training and learning*, which in turn increases *employee skills, know-how and experience*, which in turn increase *employee efficiency/effectiveness*, and this ultimately leads to competitive advantage.

In the fourth scenario, a *distinctive and appropriate firm culture* has a positive impact on *training and learning*, which triggers the path to competitive advantage through *employee skills and know-how* and *employee effectiveness/efficiency*.

In the final scenario, a *distinctive and appropriate culture* leads to *integrity*. Integrity positively affects a firm's reputation, which contributes to competitive advantage. The data also indicates a positive recursive link between *reputation* and *employee skills, know-how and experience.*

All these effects seem to be associated with three main characteristics of culture: *employee orientation, goal orientation,* and *consistency in operationalization*. Below, I will explain these concepts in more detail; they will also be taken up in other sections through their links with other themes as appropriate.

8.3.1 EMPLOYEE ORIENTATION

Employee orientation*, in the sense of an emphasis on the needs and achievements of employees, is an important factor in a positive firm culture*. A large portion of respondents suggested that their firm's employee orientation or emphasis on employees positively affects firm performance. R7 (C3), for instance, said, "Our firm culture is strongly based on self-responsibility, and the belief that people want to be successful and constantly want to improve, and management processes are aligned to this culture." What, then, sets these firms apart from rivals with a less pronounced employee-oriented culture? There are two notable differences.

The first difference concerns the appreciation for the individual, trust, and treatment. These firms exhibit a strong belief that people are special, completely different from any other element of a productive system; they are diverse, with individual needs,

aspirations, feelings, strengths, and limitations. Understanding these differences seems to be a necessary condition for these firms to be able to leverage human assets throughout the firm. Consequently, these firms devote a substantial portion of their management time to dealing with that diversity. These firms also assume that employees are, in principle, trustworthy. In other words, employees are not regarded as parties to an exchange (work for money) who constantly seek to maximize their personal utility and who tend to cheat in the absence of governance structures. Finally, these firms place great emphasis on respecting and treating their employees as mature, independent, and intelligent human beings. As R3 (C1) put it, "We give a clear priority to the human being"; he further affirms that people respond well when they are treated with fairness and respect.

Another important feature of employee orientation concerns the belief in the potential of employees. The firms with a favourable culture with regard to employee orientation share a common understanding that people can provide substantial value to the firm when they are given the necessary autonomy and an environment in which they can learn, grow, and achieve their aspirations. One firm that strongly subscribes to this belief is C3. Respondents at C3 (R7) maintained that their firm's culture is firmly grounded in the assumption that people want to be successful and always want to improve. These relatively simple assumptions regarding the aspirations and learning abilities of people seem to have pervasive implications for the whole firm when they are taken seriously. As a result, one would expect that these firms, for example, constantly train their employees, create learning opportunities, and keep other elements of the organization – such as firm structure, management controls, and reward and compensation systems – aligned to that philosophy.

8.3.2 GOAL ORIENTATION

A second dimension of culture is goal orientation. A small number of respondents claimed that their firm's culture is goal-oriented – usually with a bias towards the customers' goals. R2 (C1), for example, said that his firm is committed to customer goals and puts the resolution of customer problems on the top of its agenda, which in turn increases the firm's reputation, particularly in terms of reliability. These firms seem to have in part internalized the value system of their customers, who are ultimately the source of profits. One might argue that the principal elements of the customer's value system need to be reflected in the firm culture as a condition of competitive parity, and

even that this is a condition of competitive advantage, since a firm can hardly provide above-normal value if it neglects what customers value most.

A few respondents also claimed that their firms are not shareholder-value-oriented, and see this as an advantage. For some respondents the term "shareholder value" has a negative connotation. Respondents suggested that shareholders may be interested in short-term profits, which collide with the more entrepreneurial, long-term goals of the firm. This suggests that if shareholder attention is chiefly directed at short-term profitability, an accentuated shareholder-value orientation has a negative impact on long-term firm performance.

8.3.3 CONSISTENCY IN OPERATIONALIZATION

A third characteristic of culture is the comprehensiveness and persistency with which firms operationalize their firm culture. C1 is a good example of a firm that seeks to operationalize a people-oriented philosophy to perfection. Informants from C1 affirmed that their managers truly live their culture – caring for their people seems to be a top priority. Evidence of this concern is, for example, that the managers have implemented a number of processes related to human resources, and these processes are constantly being benchmarked and improved. In addition, they have implemented specific programs, such as health counselling. Figure 18 provides an overview of the main characteristics of C1's employee-oriented firm culture.

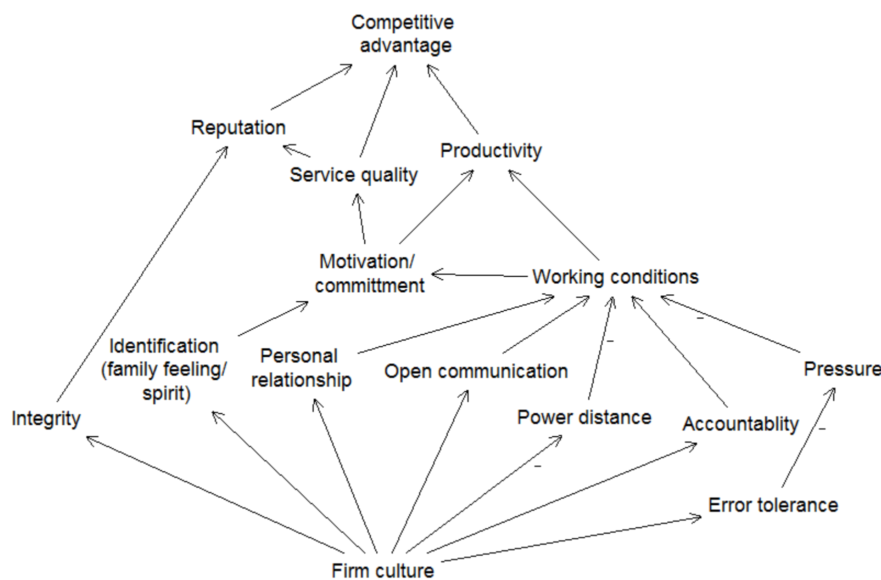

Figure 18: Case specific conceptual diagram for C1 – culture leading to competitive advantage

The cultural characteristics delineated in Figure 2 can be interpreted as follows. First, the appearance of accountability among the characteristics suggests that the firm lays stress on trust and goal orientation. The presence of the second characteristic, power distance, indicates that the firm seeks to establish informal relationships that accentuate social similarities rather than social differences. Error tolerance, on the other hand, seems to be based on the assumption that employees need some freedom to do things in their own way, and to have the autonomy to learn through experimentation. Open communication, a further characteristic, stems from the understanding that only well-informed people can support the goals of the firm, and that information should therefore be made available to all ranks of the firm so that employees can act independently. Open communication reflects managers' confidence that employees are able to handle the information and that they can be trusted with it, that is, that they will not misuse it. Finally, the prominence of personal relationships reflects the simple assumption that people want to be treated as humans with specific needs, ambitions, and emotions rather than as a standardized production factor. All these characteristics appear to improve working conditions and thus contribute indirectly to firm performance. A further effect of culture concerns employee identification (see next subsection). A final aspect of C1's culture concerns integrity. Integrity here means ethical behaviour by managers and employees. Respondents from C1 affirmed that they would never gloss over delivery times to increase sales. Integrity, as R1 (C1) suggested, eventually has a positive impact on firm reputation.

8.3.4 IDENTIFICATION, COMMITMENT AND MOTIVATION

Respondents suggested that employees' identification with the firm has a positive impact on firm performance. Some of the investigated firms (C1, C3, C7, and C11) seem to elicit exceptionally high levels of identification. One characteristic of these firms is their ability to generate a positive social dynamic as well as feelings that boost commitment and motivation. Soft factors of this sort are typically not included in conventional economic models, but as the evidence suggests, they may nevertheless be important differentiators. From an economic point of view, the phenomenon of identification may be described as an exchange between the firm and an employee: The firm provides social contacts, emotional value, identity, and meaning in exchange for a greater than ordinary contribution towards the goals of the firm by the employees. Respondents also use distinctive language to refer to that phenomenon – they characterize it as family feeling, firm spirit, or even a "fan club". All this suggests that the firm is seen not simply as a

collection of people, but rather as a social community that has the power to satisfy various stakeholder interests. A direct consequence of high employee identification is motivation and commitment, which then leads to employee performance and ultimately to competitive advantage.

Respondents at C1, for example, suggested that the firm is like a family with a unique and strong firm spirit, which is difficult to imitate. "Spirit" may be interpreted as a set of varied hard and soft elements – such as shared goals, meaning, trust, solidarity, and a feeling of togetherness – that reinforce each other. R3 (C1) contended that the replication of such a spirit is difficult, since it involves a subtle interplay of different elements. A strong firm identification (family feeling, spirit), as respondents at C1 suggested, leads to motivation and commitment and, ultimately, to high employee productivity.

Similarly, respondents from C7 also suggested that employee identification is a competitive strength. R17 (C7) claimed that C7's employees are very committed to the firm – the workplace is something like a fan club. The same respondent noted that it is important to the employees that they work for C7 rather than for some other company, and that they identify strongly with the firm and the firm's products. R17 also noted, however, that the level of employee identification depends on another condition as well: the nature of the employee-shareholder relationship. The respondent thinks that privately held companies have an advantage in this regard because employees know who the owner is, rather than the owner being an anonymous set of shareholders. One possible interpretation of this is that trustworthiness varies according to the type of shareholders, and that a perception of a high level of shareholder trustworthiness has a positive effect on employee identification.

In case C11, respondents suggested that the motivation and commitment of employees is a competitive strength of the firm. R26 (C11) said that the spirit in the firm is very pronounced; most people are extremely committed, motivated, and enthusiastic about the firm, and there is also a strong feeling of togetherness. R25 (C11) explained that there is a strong social identity among the workforce: the firm is like a large family, which leads to enthusiasm and, ultimately, to performance. In sum, respondents from C11 clearly indicated that a consequence of C11's distinctive firm culture is a strong employee identification (spirit), which in turn leads to motivation and commitment, thereby increasing firm performance.

In case C6, respondents also noted that the level of identification of the firm's employees has positive effects on firm performance. R14 (C6) said that the identification of employees with the firm's brand and products has made the firm successful. The same respondent noted that employees even use the firm's products in their free time. In cases C10 and C8, respondents also reported that the firms have comparably high levels of employee identification, which has a positive effect on firm performance.

8.3.5 INIMITABILITY OF FIRM CULTURES

Respondents suggested that the duplication of a distinctive and appropriate firm culture is unlikely for two main reasons. First, competitors may have difficulty understanding the composition of a distinctive and appropriate firm culture and how that culture is linked to other elements of the firm that eventually lead to firm performance. R9 (C3), for instance, argued that all firms have a unique culture that is difficult, if not impossible, to copy. The same respondent thinks that a firm's culture is complex and cannot be broken up into its constituent parts for analytical purposes, as one might do with a machine. In a similar vein, R3 (C1) expressed the belief that the development of a positive culture, and, consequently, of firm spirit, requires a comprehensive set of measures; it is a function of multiple factors, and hence extremely difficult to replicate.

Second, even when competitors are able to imitate a distinctive and appropriate culture, it is unlikely that the benefits they could extract from it would be as high as those derived by the original company. R9 (C3) asserted that copying a culture would make little sense, since the culture of one company would not fit another. This respondent expressed the strong conviction that the "[firm's] culture cannot be copied, because the way we live it would not work in another company." In other words, realizing these benefits may depend on other firm-specific characteristics, which might be difficult or costly to replicate. R17 (C7), for example, doubted that close competitors could replicate the same level of identification easily, especially when they are publicly held companies. This suggests that, in this case, in order to achieve the same level of employee identification, a competitor would not only have to replicate a distinctive and appropriate firm culture but also to establish a similar level of trust between shareholders and employees. This could mean that publicly listed competitors would have to privatize their businesses or at least to put a majority of their shares in the hands of a trustworthy investor.

8.3.6 SUMMARY

In sum, firm culture was found to be, for all of the investigated firms (cases), an important contributor to firm performance. In ten cases, respondents reported that firm culture provides a competitive advantage, and in nine cases that this advantage can probably be sustained. Respondents suggested that cultures are not bad or good *per se*; it is rather the cultural fit with a firm's goals, strategy, and business environment that determines the contribution to firm performance. Some respondents suggested that firms might not only have different cultures, but also different abilities to fully appreciate and realize cultural benefits. Respondents also suggested, however, that cultures are relatively difficult to assess and compare.

On an abstract level, respondents indicated that the relationship between culture and competitive advantage is mediated by the firm's goals, strategy, and environment. On a more concrete level, culture seems to affect competitive advantage through three main scenarios. In the first scenario, a distinctive and appropriate culture leads to employee identification, which then leads to employee motivation/commitment. This in turn has a positive impact on employee efficiency/effectiveness, which ultimately leads to competitive advantage. In the second scenario, a distinctive and appropriate culture contributes to a productive working environment, which leads to employee motivation/commitment, then to employee efficiency/effectiveness and eventually to competitive advantage. In the third scenario, a distinctive and appropriate culture has a positive impact on training and learning, which in turn positively affects employee skills and know-how. This leads then to employee efficiency/effectiveness and ultimately to competitive advantage.

The findings suggest that competitive advantage is associated with three general characteristics of firm culture. One of them is *employee orientation*. Indicators of a strong employee orientation include, for instance, an appreciation for the individual, an a priori trust in people, a view that sees employees as mature, independent, and intelligent human beings, and a pronounced belief in the potential of individuals. A second characteristic is *goal orientation*. This may be a reflection of the firm's goals or, as some respondents suggested, a reflection of customers' goals and value systems. A third characteristic concerns the *consistency with which firms operationalize their culture*. Some of the investigated firms seem to implement their culture with relative high consistency. Finally, respondents suggested that the imitation of a distinctive and appropriate firm culture is unlikely for two main reasons. First, competitors may have

difficulty understanding the composition of a distinctive and appropriate culture and its links to other elements of the firm that eventually lead to firm performance. Second, even when competitors are able to imitate a distinctive and appropriate culture, this may not produce noteworthy benefits, since the culture may be incompatible with the rest of the competitor's firm. All this suggests that a distinctive and appropriate firm culture is a source of persistent superior returns.

8.4 LITERATURE

A firm's culture is, in Barney and Clark's (2007) view, an organizational resource. Of course, to confer an advantage over competing firms, a firm's culture must enable a firm to perform activities in distinctive and value-enhancing ways. Porter (1985) suggests that a firm's culture can only add economic value to the firm when it matches the firm's strategy; for instance, a culture emphasizing simplicity, precision, and regulation may help to achieve competitive advantage through cost leadership, while a culture emphasizing progression, originality, and venturing may help to achieve competitive advantage through differentiation. In Porter's (1985, p. 24) view, a culture cannot be "bad" or "good", just more or less suitable; firm culture is simply an instrument of strategy implementation and "not an end in itself". Arogyaswamy and Byles (1987) also emphasize that the value of a culture critically depends on its fit with the firm's strategy as well as its business setting. They furthermore note that external fit alone is not sufficient condition for performance, what it also requires is an internal fit in the form of "cohesion" and "consistency".

Sanchez and Heene (2004) suggest that a firm culture grounded in "honesty" helps to establish trust within and across the organization that in turn increases the commitment of employees, suppliers, and other stakeholders involved in the generation of economic value. They conclude that such a culture has positive implications for the firm's ability to acquire and access valuable resources in resource markets. Furthermore, they point out that firm culture is an integral part of the system through which the firm controls firm performance. Managers can define and effectively implement a set of values and behavioural norms that support the goals of the firm; this set of values and norms then becomes the yardstick against which the contribution and behaviour of individuals can be evaluated. Furthermore, scholars contend that firm culture can influence the effectiveness of capabilities such as strategy making (Steensen & Sanchez, 2008) or the realization of corporate synergies (Mansour, 1998).

Empirical research suggests that firm culture can provide significant economic value. For example, a study by Hansen and Wernerfelt (1989) indicates that a relatively large portion of performance differences among firms (37.7%) may be explained by cultural attributes (i.e., goal emphasis, HRM emphasis).

Another study, by Gordon and DiTomaso (1992), investigates the relationship between culture and performance at 11 insurance firms. This study argues that the strength of a culture, measured as the agreement of organizational members on cultural values, is positively correlated with firm performance. Gordon and DiTomaso also find support for their hypothesis that cultures promoting 'adaptability' rather than 'stability' positively affect long-term firm performance.

In a similar vein, Denison and Mishra (1995) focus on cultural traits and their effects on firm performance and other organizational outcomes. Their study examines the cultural characteristics of 5 firms, aggregating these characteristics into four cultural traits – "involvement", "consistency", "adaptability", and "mission" – and measuring the correlation of these traits with firm performance, using a sample of 220 firms. These correlations, Denison and Mishra find, are positive and strong for large firms, but relatively weak for other firms.

The literature also suggest that even if a firm culture is unique, it does not imply that it results also in superior firm performance (Barney et al., 2001). Furthermore, a firm's extant culture can also become rather a limiting factor in the firm's ability to adapt to its environment and develop new competencies (see Gagliardi, 1986). Finally, there is also the latent threat that cultural qualities that once made a positive contribution to performance in a particular business context become irrelevant or even dysfunctional if that business context changes, and thus turn from a competitive virtue into a competitive burden (Barney & Clark, 2007).

Where do distinctive cultures come from? Schein (1983) argues that organizational cultures have their origins in the values and assumptions held by the founders of the company and their behaviour in addressing problems and organizational issues. These founders may differ in their personalities and experiences and thus create distinctive firm cultures. He further notes that over time, these cultures evolve as new people come to work for the firm, bringing their own assumptions and values, and as the organization faces new problems and challenges of 'external adaptation' and 'internal integration'.

Barney (1986a) shares the view that distinctive cultures may arise from idiosyncratic firm histories as well as from the unique qualities and experiences of the people who founded the firm or who have worked for it over the years. Barney also suggests that firm cultures can converge if firms in an industry are confronted with the same challenges in the external environment, noting that although firm cultures can be firm-specific in their details they can still be alike in the functional value they provide.

In a similar vein, Gordon (1991) contends that the evolution of a firm's culture is substantially influenced by the common factors (such as the needs and preferences of customers) in the industry in which the firm operates. He further suggests despite the influence of these industry conditions, there may be still be some level of cultural diversity among competing firms, since not all dimensions of a firm's culture are determined by firm-external factors alone. From an empirical point of view, there is also some evidence that cultures are, with respect to their functional value, not homogenously distributed across firms (e.g., Murphy, Cooke, & Lopez, 2013).

As with any other valuable and rare resource, firm culture can only confer a long-lasting advantage over competing firms if it also meets the condition of imperfect imitation (Peteraf, 1993). Barney (1986a) suggests that when a firm in a given setting enjoys culturally based economic advantages, it is to be expected that competing firms may be tempted to emulate that culture. He notes, however, that there are number of reasons that can prevent competitors from creating perfect imitations or at least can make such endeavours extremely difficult and uncertain.

One such reason is that it is difficult and time-consuming to uncover and describe the essential, largely invisible cultural elements like values and assumptions held by individuals in the organization, even if one has access to the firm (Whipp, Rosenfeld, & Pettigrew, 1989). Thus, it is practically not possible for competing firms to analyse in any detail the focal firm's culture below the surface of the more visible and tangible cultural artefacts (cf. Marcoulides & Heck, 1993).

A second reason is *causal ambiguity*. Even were a competitor to gain some level of understanding of these cultural characteristics, there might still be some level of uncertainty with regard to their role in producing superior performance (Lippman & Rumelt, 1982). A third reason has to do with *path dependency*. A competitor may find it hard to replicate a favourable firm culture when one or more attributes are linked to the firm's unique history or experience (Barney, 1986a). The final reason regards the

challenges inherent in constructing or adapting complex resources. In the rare event that a competing firm succeeded in obtaining all the necessary information to develop a blueprint of a strategically valuable target culture, that competitor would still be confronted with the puzzling task of transforming its extant firm culture into the desired target culture. Some writers seem to suggest that rational and conscious approaches to change a culture are feasible (e.g., Peters & Waterman, 1982; Sanchez & Heene, 2004) while others argue that such approaches are severely constrained (e.g., Gagliardi, 1986; Whipp et al., 1989).

8.5 INTEGRATIVE DISCUSSION OF FINDINGS AND LITERATURE

Respondents to the study clearly indicated that a distinctive and appropriate firm culture contributes to superior firm performance. This is consistent with other empirical findings, which indicate that culture can provide significant economic value (Denison & Mishra, 1995; Gordon & DiTomaso, 1992; Hansen & Wernerfelt, 1989). Respondents also suggested that a firm's culture must match its strategy, goals, and environment to be effective, which is consistent with Porter's view (1985) that a firm culture can only add value to the firm if it is aligned with the firm's strategy. The findings of the present study are also in part consistent with the views of scholars who suggest that the effectiveness of a firm's culture depends on the degree it suits the firm's competitive environment (Arogyaswamy & Byles, 1987; Barney & Clark, 2007).

Respondents indirectly suggested that firms may differ not only in their culture but also in their ability to fully appreciate and realize potential benefits related to that culture. In other words, culture may have intrinsic value, but exploiting it requires appropriate firm capabilities. Some scholars seem to discount the possibility that culture may have intrinsic value: Porter (1985), for instance, notes that culture is simply a means with which to implement a strategy. Similarly, Sanchez and Heene (2004) suggest that managers can define and implement the values and behavioural norms that support the goals of the firm.

8.5.1 EVALUATING VRIN: VALUE

In discussing how culture contributes to competitive advantage, respondents indicated three main scenarios that seem not to have received much scholarly attention in the extant strategic management oriented RBV literature. Though there is some literature on culturally based productivity effects – for example, an exploratory study by Peters

and Waterman (1982) – relatively few studies pay attention to how culture affects the effectiveness of employees and, ultimately, competitive advantage.

The findings of this study point to competitive advantage being associated with three general characteristics of firm culture: (1) employee orientation, (2) goal orientation, and (3) consistency in operationalization. These findings tally in part with Hansen and Wernerfelt's (1989) study, which indicates that substantially more than a third of firm performance is attributable to two cultural characteristics: goal emphasis and HRM emphasis. Consistency in operationalization may be implied in their study (1989), since these two characteristics can only contribute to firm performance when they are operationalized. The results of the present study, however, put much greater emphasis on consistency in operationalization, indicating that it is an important moderator of culture-performance relationship that deserves attention in its own right. This finding also links to some extent to the conceptual study of Arogyaswamy and Byles (1987), which suggests that internal cultural fit (i.e., "cohesion" and "consistency") may in some settings matter significantly in firm performance.

8.5.2 EVALUATING VRIN: RARENESS

Respondents suggested that cultures are relatively difficult to assess and compare, but they nevertheless expressed the belief that their firms' cultures are rare among a set of competing firms.

The literature indicates that a distinctive firm culture can arise from the unique personalities and experiences of those who founded the firm (Schein, 1983) and from the firm's idiosyncratic experiences and development path (Barney, 1986a; Gagliardi, 1986). Barney (1986a) contends that firms may possess cultures that give them an advantage over competing firm, but also notes that although firm cultures may have different historical backgrounds, they may be still similar in the functional value they provide. Thus, only firm cultures that are distinctive in their functional value can confer competitive advantage.

The findings of the present study suggest that there is some level of heterogeneity among competing firms and that their cultures afford them economic advantages. These findings also parallel the findings of other studies, which suggest that performance-relevant cultural characteristics are not equally distributed across firms (e.g., Murphy et al., 2013).

8.5.3 EVALUATING VRIN: INIMITABILITY

Respondents suggested that a competitor is unlikely to be able to successfully imitate a distinctive and appropriate firm culture. First, competitors may find it hard to understand the composition of a culture and its linkages to other elements of the firm contributing to performance; they may also have trouble discovering and understanding the appropriate dimensions of a culture. This is essentially consistent with the views of other scholars (see Barney, 1986a; Lippman & Rumelt, 1982; Whipp et al., 1989). Second, the present study found that even in the case that a competing firm were to succeed in imitating a distinctive culture, it is unlikely that it could replicate its benefits, since the culture may be incompatible with the rest of the competitor's firm. In the literature on culture and competitive advantage, the "risk of incompatibility" or the "cost of replicating interdependent resources" is not specifically mentioned as an imitation barrier. This is a new finding.

The literature suggests a number of additional factors that make it difficult or even impossible for competitors to replicate a successful culture (Barney, 1986a). One such additional barrier, for example, exists when rare and valuable cultural characteristics are linked to unique historic or firm-specific conditions (Barney, 1986a). Another barrier is formed by some elements of the culture being relatively difficult to change through a planned change process (e.g., Gagliardi, 1986; Whipp et al., 1989).

8.5.4 EVALUATING VRIN: NON-SUBSTITUTABILITY

A final condition for firm culture to sustain a competitive advantage is that competitors cannot replace that culture with another resource or set of resources. Common sense suggests that if firm culture is defined as a "complex set of values, beliefs, assumptions, and symbols that define the way in which a firm conducts its business" (Barney, 1986a, p. 657), such resource replacements are impossible.

8.6 PROPOSITION

The results of the present study, juxtaposed with the existing literature, lead to the following:

> *Proposition 2 – A distinctive and appropriate firm culture is very likely to be a source of sustained competitive advantage when it is (1) employee oriented, (2) goal oriented, and (3) consistently operationalized.*

8.7 CHAPTER CONCLUSION

This chapter concentrated on firm culture as a source of competitive advantage. It presented the study finding, reviewed the relevant literature, and synthesized the two. It then assessed the potential of firm culture to provide a sustained competitive advantage based on VRIN criteria, and finally developed conclusions in the form of testable propositions. The study provides strong evidence that a distinctive and appropriate firm culture is a source of sustained competitive advantage.

In the following chapter, *brand reputation* will be presented as the next major finding that elucidates why performance differs among competing firms.

9 FINDINGS AND DISCUSSION: BRAND REPUTATION AND SUSTAINED COMPETITIVE ADVANTAGE

9.1 CHAPTER INTRODUCTION

This chapter reports the finding that a *distinctive and favourable brand reputation* is a major source of sustained competitive advantage. As respondents from all 11 cases pointed out, and as much of the literature affirms, brand reputation contributes to firm performance: among other things, a positive brand reputation can generate feelings of identification in the customer, reduce the need for publicity costs, and promote the customer's trust in the quality of the product or service. A distinctive brand reputation is hard to imitate: it is often linked to a specific history or location, to a particular competence, or to complex emotional associations built up over time, and, not least, maintaining it over the long term requires that the firm be able to deliver on the promises generated by it. This hard-to-imitate quality is one of the chief factors why brand reputation is not only a general benefit but also a source of competitive advantage.

The chapter is organized as follows. After first offering a brief definition of the concept of brand reputation, the chapter describes the findings of the study in some detail, using evidence and examples from the cases considered to show how respondents viewed brand reputation and its connection to competitive advantage. The chapter next proceeds to a consideration of the literature on the topic in a separate literature review section; this literature and the study findings are then brought together in a section that also uses RBV logic (VRIN) to evaluate the potential of the identified resource to provide a sustained competitive advantage. Finally, the chapter develops conclusions in the form of testable propositions.

9.2 DEFINITION

The definition of brand reputation that has inductively emerged from the present study and from examining the relevant literature is as follows: *brand reputation* is a stock of enduring, firmly rooted associations in the mind of the customers and other external stakeholders that had been accumulated by assembling, selecting and interpreting brand images over time. This definition draws on Keller's interpretation of brand image (Keller, 1993, p. 3) and Rindova's conceptualization of reputation (1997, p.189). The distinctiveness and favourability of a firm's brand reputation may then be understood as

the cumulative "strength", "favourability" and "uniqueness" of psychological or emotional associations (see Keller, 2003, pp. 12–13).

9.3 FINDINGS

Respondents from all 11 firms (cases) suggested that brand reputation contributes to firm performance. In 9 cases (C1, C2, C3, C4, C5, C6, C7, C8, C11) respondents considered it a source of sustained competitive advantage. That brands are associated with firm performance is in part simply conventional wisdom. Such a general statement, however, does not capture the depth of variation in this resource category among competing firms. This chapter will show that there can be substantial heterogeneity in this category and that the differences between firms regarding brand reputation influence competitive advantage.

The diagram below provides an overview of the concepts related to brand reputation and competitive advantage.

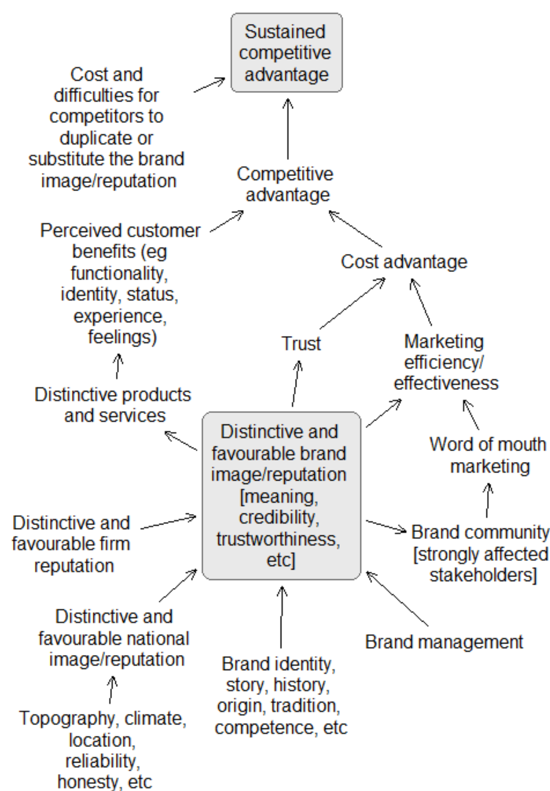

Figure 19: Integrative diagram for to "brand image/reputation": concepts and their links to sustained competitive advantage

The firms investigated in this study use a variety of approaches to brand their products and services. Firms serving industrial markets tend to use their firm name as the "brand" that makes their offerings distinctive, while those serving consumer markets cultivate distinctive brand names to differentiate their products and services in the marketplace. In case C2, respondents suggested that the distinctive brand image of their company is a strong contributor to firm performance. As R5 (C2) noted, a strong brand image is necessary to convince customers of a good price-performance ratio, particularly in consumer markets. R2 (C2) suggested that close rivals have no clear position – meaning, put simply, that the attributes of the brand are too common or that unique attributes are not well communicated to differentiate products and services in the marketplace.

R5 (C2) further suggested that developing a distinctive brand image in the industry C2 is active in requires an identity with a clear root. Overall, respondents from C2 suggested that their company's brand possesses such a root, as well as a set of unique positive attributes relevant to core customer segments of the company. Some of these attributes are linked to the firm's history, tradition, and location. R4 (C2) noted that, for example, attributes linked to the region offer customers emotional value that competitors with multinational brands find difficult to attain. The same respondent further explained that some of the company's close competitors are multinational corporations that have purchased and attempted to integrate local brands into their core brands – with sometimes fatal consequences. Such integration efforts appear to have resulted in a less distinctive brand image and ultimately a decline in perceived customer benefits. An attempt to integrate local and multinational brands, the respondent suggested, would have been appropriate in the 1980s, when international brands were hip, but has become counterproductive as consumer preferences have shifted towards local brands. Some competitors, R4 pointed out, have become aware of this change in consumer preferences and now work to revert to a local brand model.

Respondents from C2 suggested, however, that competitors might to some extent be able to reduce their competitive disadvantage. First, they could push local brands in place of the international ones. Second, they could reposition their brands. R5 (C2) noted that repositioning would lead to more trust in the brand and eventually increase demand for the products associated with that brand. This respondent also calculated that two or three years might be enough time for close competitors to catch up with the brand position of C2 (i.e., reach a brand position of similar value); however, such success would depend on the competitors' possessing talented personnel in marketing. The respondent

further suggested that changing a brand image is not only a question of marketing communications but also of having the ability to deliver the brand promise, which could for some competitors entail important organizational changes so as to become more flexible and more responsive to customer needs. In other words, the ability to respond to customer needs is an important competence in developing a distinctive and favourable brand reputation. In sum, the brand of C2 seems to be valuable, rare, and rather difficult to imitate, since some of its reputational dimensions are related to history, tradition, location, and competence.

In case C5, respondents suggested that C5's distinctive brand is a key contributor to firm success. As R12 (C5) put it, "If you don't have a super strong brand, you have a problem." R13 (C5) suggested that their brand stands out in a number of ways. First, there is relatively little variability in brand perception: consumers have similar connotations of the brand around the globe. Low variability in brand perception can here be considered an outcome of consistent marketing communication, which appears to be an important competence.

Second, C5's brand credibility is relatively high. This credibility is the result of a number of factors, including historical roots, technology, sophistication, professionalism, effectiveness of products, and the brand story. R13 (C5) pointed out that these elements also have some links to each other, which increases the brand's credibility. For instance, the brand's history is closely linked to its ingredients story. Third, the brand is clearly positioned in the realm of luxury and sophistication.

R12 (C5) asserted that the advantage of the company's brand is that it has a strong, credible history with a mystical touch. The mystical touch may be understood as stemming from the special circumstances under which the product was discovered and under which it has been produced – and the extent to which these technologies and practices of production are still embodied in the product or products in their current form. The mystical quality emanates partly from the fact that not all the historical details can be fully verified; thus, they acquire the status of legend. Nevertheless, R12 emphasized that such myth-like aspects in no way discredit the story, which as a whole remains highly credible and is only made more compelling by the element of mysticality. This suggests that credibility is a necessary but not a sufficient condition for superior firm performance. R13 (C5) noted that most brands in C5's sector do not have such a story or do not communicate it, and explained that some of these brands, often larger in

size, share a somewhat different history whose basic pattern consists of a founder coming up with an idea and the company growing out of that. The problem with these brands, this respondent suggested, is that their characteristics are so similar that articulating what it is that sets them apart from competing brands becomes difficult – thus, such brands cannot make a convincing case why a consumer should choose them over others.

On the whole, then, respondents from C5 suggested that a strong brand has two main effects on firm performance. First, it can increase customer benefits in dimensions such as emotions, experience, identity, and social affiliation. Second, it can facilitate marketing communication and increase the efficiency of marketing activities. The situation for C5 is somewhat special, since, according to respondents, the company's brand already has cult status. From an economic point of view, cult status may be interpreted as a situation where some fraction of a brand's stakeholders (e.g., customers, influencers) have exceptionally strong bonds to the brand; these stakeholders may then contribute to the desired brand image or increase the effectiveness of marketing communications (e.g., consumer word of mouth).

Given this situation, respondents from C5 suggested, advertising is neither necessary nor opportune – indeed, it could even have negative effects on the brand image. R12 (C5) noted that despite the low level of advertising, the brand has a high awareness level. In other words, an appropriate level of advertising is important to maintaining "a cult status". The same respondent argued that a cult brand has a number of implications, such as lower marketing costs and a higher focus on alternative marketing measures, but also less ability to use direct intervention mechanisms to shape the brand's image. From a resource-based perspective, these implications may be interpreted as follows. A critical resource for a brand to achieve cult status seems to be the relationship of the brand to those of its stakeholder groups (e.g., customers, users, influencers) having favourable characteristics (e.g., attitude, behaviour, social status, and personality). Relationships with individuals of this 'cult community' may be considered a firm asset that increases marketing efficiency (by e.g. stimulating consumer word of mouth, and reducing the need for costly advertisements); this, in turn, translates into firm performance. In addition, if this cult community or its individual representatives become associated with the brand, that association can indirectly contribute to a distinctive and positive brand image, which in turn can increase customer benefits (e.g., status, identity, feelings, and self-expression).

Imitation of a distinctive brand reputation, respondents from C5 suggested, is time-consuming and difficult. R12 (C5) said that a competitor would need between 3 to 10 years to bring their brand onto a similar level, and suggested that this would require a complex process involving a mixture of several marketing measures. Respondents further noted that compared to the next prominent brand, their company's brand has been in the market longer. This lead-time suggests that C5 may have gained important first-mover advantages. For example, C5 may have gained more experience in developing the brand (learning curve), which represents a distinctive competence. Second, C5 may have selected the most attractive brand position, forcing competitors to find different, perhaps less attractive positions. Third, C5 may have developed loyal relationships with customers and channel partners – and thereby raised the customer acquisition costs for latecomers (i.e., switching costs). All this suggests that replication would be costly. Apart from these difficult-to-recuperate costs, there are other reasons imitating C5's brand may be difficult or even impossible for competitors. First, the brand story is linked to firm-specific and historical conditions. Second, the brand, its characteristics, its links to other firm resources (e.g., culture, technology), and its links to firm performance are difficult to analyse and understand. Third, the brand involves other firm assets, such as the "cult community", which may be rare and hard to imitate. Fourth, some of the brand image dimensions (brand associations) appear to be clearly path dependent (e.g., its pioneering role). Fifth, even if a competitor were able to replicate the main aspects of the brand image/reputation, the imitation would by definition remain imperfect, because associations like being among the first brands in a particular product market cannot be duplicated. All this suggests that imitation is extremely difficult and costly.

In case C4, too, respondents emphasized the significance of the brand, characterizing it as the most important asset for the success of their firm, particularly in home markets. R11 (C4) pointed out that the brand stands for reliability and safety, both of which are important for C4's customers. The effects of the brand on firm performance may be interpreted in the following way. First, the brand image signals trustworthiness, which increases customer trust. Trust, in turn, lowers transaction costs because it reduces the need to establish other costly exchange governance mechanisms. Thus, transaction economies increase competitive advantage. The second effect of C4's distinctive brand image concerns the perceived benefits for customers. These benefits may include, for instance, a feeling of personal safety or low perceived risks regarding the reliability of

products and services. These customer benefits eventually contribute to competitive advantage.

Respondents from C4 also noted that their brand reputation is difficult to replicate: for example, R11 (C4) asserted that a competitor would need to build up a relevant track record demonstrating process excellence, reliability, professionalism, and appropriate cycle times. In other words, brand reputation is difficult to replicate because it needs to be created over time and presumes a set of distinctive firm competences (e.g., in research and development, manufacturing, sales, distributions, and customer service).

In case C6, too, respondents found that their brand is relatively strong and unique compared to other brands in their sector. R15 (C6) explained that the brand has a distinct combination of attributes relevant to customers; these attributes are linked to the firm's origin, tradition, competence, and focus on a particular customer segment. The same respondent further pointed out that the brand clearly distinguishes itself from other brands in, for example, the area of safety.

Distinctive brand image and consumer confidence in the brand as the prime factors of firm performance were also emphasized by respondents in case C11. R25 (C11) suggested that customers associate the brand with innovation and market leadership – a clear advantage. R26 (C11) added that a positive brand image leads to trust, and affirmed that the brand image and consumer confidence in the brand are the main reasons why customers buy the product. Other important buying criteria reflected in the brand image include, for instance, price-performance ratio, services, spare part guarantee, market closeness, user-friendliness, and durability of products.

In case C7, respondents believed that the strength of their brand comes from their products and product range. R16 (C7) pointed out that to maintain the brand's reputation, the firm needs good people and process excellence. This suggests two things. First, that there is a bidirectional relationship between products and brand reputation. A brand reputation can be an input as well as an output of a product. Second, if the firm's products are the main input of the brand reputation, the true source of differentiation may be argued to lie in the firm's competence to make these products. In other words, the imitation of a distinctive brand reputation would require a competitor to replicate that competence first.

Finally, brand reputation as a competitive strength was also noted by respondents in case C8, who indicated that the trustworthiness of the brand – and of the organization that stands behind it – is important to customers. Respondents indicated that the brand of C8 is more trustworthy than those of some of its close competitors. From an economic perspective, the link between trustworthiness and firm performance can be interpreted in the following way: it increases trust in a relationship, which then reduces transaction costs, and hence contributes to competitive advantage. Respondents from C8 also believed that C8's brand image is difficult to replicate since it has been developed over decades. R18 (C8) suggested furthermore that a favourable image alone is not enough, the concrete product matters as well: maintaining a successful brand image also requires that the brand deliver on its promises regarding product quality consistently over time.

9.3.1 SUMMARY OF FINDINGS

Respondents from all 11 cases suggested that a strong brand contributes to firm performance; in 9 cases they considered it a source of sustained competitive advantage. Branding worked slightly differently for the different kinds of firms investigated in this study, so that those associated with industrial markets branded their products primarily using their firm name, while those associated with consumer markets emphasized the use of distinctive brand names.

Respondents suggested that their firms' brand reputations embody customer-relevant attributes that either are distinct individually or form a distinctive composite when combined. Salient points of differentiation include *quality, reliability, safety, innovation, market leadership, competence,* and *credibility*. Respondents suggested furthermore that some of these attributes are linked to the firm's origin, history, tradition, location, competence (process excellence), technology, and focus on a particular customer segment. A special case, as indicated by the respondents at one firm, is that of cult brands, that is, brands that have particularly committed "followers" who may provide the brand with word-of-mouth marketing as well as (should the followers be well known and positively valued, e.g., celebrities) positive emotional associations, thus increasing marketing effectiveness and lowering marketing costs.

The present study suggests that a distinctive brand reputation contributes to performance in the following way. First, it can increase customer benefits in dimensions like emotions, experience, identity, and self-expression. For example, a brand can induce a feeling of safety, lower the perceived risks regarding the reliability of products and

services, or increase the social status of the consumer. Second, it can increase the efficiency and effectiveness of marketing communications (e.g., word of mouth). Third, it can signal trustworthiness and thus increase trust in the buyer-seller relationship. Trust, in turn, can lower the cost in an exchange when it substitutes other costly mechanisms for ensuring that expected benefits from an exchange accrue to each party. All these differentiation and cost advantages contribute to competitive advantage.

A distinctive brand reputation, this study has found, may be difficult to imitate for a number of reasons. First, its characteristics, its links to other firm resources (e.g., culture, cult community), and its connection to firm performance may be difficult for an outsider to analyse and understand. Second, the unique attributes of the brand reputation may be linked to a specific location, a unique history, or some firm-specific conditions. Third, distinctive attributes of a brand reputation may be path-dependent (e.g., pioneering role). Fourth, the brand reputation may depend on other critical firm assets that are difficult to obtain or develop (e.g., cult community). Fifth, no matter how successful a competitor's replication of the main aspects of the brand reputation, the replication can by definition not be complete since some aspects that have powerful associations, such as being first in the market, cannot be duplicated. Furthermore, as respondents pointed out, imitating a favourable brand reputation is not simply a question of marketing, but also of ability to deliver on the brand's promise; achieving this ability might require competitors to make significant organizational changes. All this suggest that the imitation of a distinctive brand reputation can be difficult, uncertain, and costly. However, respondents also indicated that competitors in some cases may be able to reduce the competitive gap regarding brand reputation, for example, by changing their brand strategy or by repositioning their brands. In some cases, respondents believed that some of their firm's close competitors might be able to catch up within two to three years, and in one case between three to ten years, though they also considered that this would require the competitor to have exceptionally capable people in marketing.

9.4 LITERATURE REVIEW

The strategic management oriented RBV literature suggests that brands are an important source of competitive advantage (Grant, 1991; Itami & Roehl, 1987; Sanchez & Heene, 2004). It is a firm-specific, reputational (Grant, 2008), intangible (Hitt et al., 1997; Sanchez et al., 1996a), firm-external, and invisible asset, which represents the

information that consumers and other constituencies store about the brand (Itami & Roehl, 1987).

A brand image is created through firm activities (such as promotions) and information that flow from the firm to its environment (customers) (Itami & Roehl, 1987). A brand image created through operations is generally considered to leave more reliable and lasting impressions than one created through advertising (Itami & Roehl, 1987). Without these activities, a brand image erodes (Porter, 1991). The competence-based management perspective further suggests that a brand image or reputation is an outcome of competences, which may vary among competing firms (see Eden & Ackermann, 2010). Competence outcomes, distinctive or otherwise, are typically not subject to direct manipulation; they can only be influenced by building and orchestrating underlying competences (Eden & Ackermann, 2010). Thus, a strong and favourable brand image reflecting a unique set of competences can be rather difficult and costly to imitate.

In the strategic management oriented RBV literature, the term "brand" as well as its close relatives – including brand name, brand image, brand reputation, and brand equity – appear frequently. These terms, however, are not well defined and are often used interchangeably. A likely explanation for the lack of widely accepted definitions is that the field of strategic management presumes that brand related concepts should instead be treated in the marketing literature.

The marketing literature does indeed provide more precise definitions of brand and related terms, including brand identity, brand awareness, brand image, brand promise, brand knowledge, and brand equity. In the following, I will discuss these definitions briefly.

A *brand* can be defined as a name, mark, symbol, image, or design, or a blend of these, attached to a product or service to make the market offering more distinctive (Farquhar, 1990; Kotler, Keller, Brady, Goodman, & Hansen, 2009; Kotler, 1991). A brand is "rooted in reality" but reflects the subjective "perceptions" of customers (Keller, 2003, p. 8). It consists of a bundle of "values and associations" (Lindemann, 2010, p. 108) and embodies "goodwill " (Kotler et al., 2009, p. 425). A brand with a unique and intense relationship with its consumer community can even achieve cult status (Aaker, 1994).

Brand identity is the firm's "aspirational image" of what the brand should represent to customers (Aaker, 2010, p. 12; Kotler et al., 2009, p. 426); this then translates into brand awareness and brand image (Keller, 1993, 2003).

Brand awareness refers to the "consumers' ability to identify the brand under different conditions, as reflected by their brand recognition or recall performance" (Kotler et al., 2009, p. 861).

Brand image refers to the "perceptions about a brand as reflected by the brand associations held in consumer memory" (Keller, 1993, p. 3). The impact of these psychological or emotional associations on performance (i.e., brand equity) is determined by their "strength, favourability and uniqueness" (Keller, 2003, pp. 12–13).

Brand knowledge comprises "thoughts, feelings, images, experiences, beliefs, and so on that become associated with the brand" in the minds of customers (Kotler et al., 2009, p. 426).

Brand equity refers to the net effect on perceived customer value from attaching a brand to a product offering (Farquhar, 1990, p. 7), reflecting customers' brand associations, including brand awareness, knowledge and image (Keller, 1991, 1993), as well as customers' willingness to pay a higher price (Aaker, 1994, p. 115; cf. Hitt et al., 1997, p. 78). Overall, brand equity is equivalent to the net economic value attributable to the brand (Keller, 2003, p. 9).

The marketing definitions of brand image, brand knowledge and brand awareness, combined, seem to be closest to what strategic management scholars mean with brand image or brand reputation. The concepts image and reputation are related, but have a slightly different meaning. According to Rindova (1997, p.189) an image is a temporary representation of an object (such as a brand) and a reputation is an enduring, cognitively more firmly rooted representation of an object, which progressively evolves from assembling, selecting and interpreting images "over time". Put differently, brand reputation is a stock of accumulated brand images.

The RBV literature generally portrays brands as a valuable assets (e.g., Itami & Roehl, 1987; Sappington & Wernerfelt, 1985). Brands can reduce uncertainty and perceived risk (Grant, 2008; Itami & Roehl, 1987; Sappington & Wernerfelt, 1985), provide emotions, status, and other social and psychological benefits (Grant, 2008), increase the image of a product (Sanchez & Heene, 2004), facilitate new product introductions

(Prahalad & Hamel, 1990), differentiate products and services (Eden & Ackermann, 2010; Grant, 2008; Porter, 1985), increase customer loyalty (Prahalad & Hamel, 1990), provide economies of scope (e.g., brand extension, licensing, or related diversification) (Grant, 2008; Henderson & Leleux, 2005; Peteraf, 1993; Sanchez & Heene, 2004), preserve a first-mover advantage (Rumelt, 1984), raise the barrier for new entrants (Grant, 2008; Porter, 2008; Sanchez & Heene, 2004), enhance demand (Sappington & Wernerfelt, 1985), and provide legal protection if registered as trademarks (Hall, 1992).

A relatively powerful feature of brands is that they can provide economies of scope, that is, they are not "used up" in the production process (Peteraf, 1993). A brand's economies of scope, however, are not unlimited: from an economic point of view, the optimal scope of a brand is reached when the marginal value equals the marginal cost of brand diversification (see Barney, 1997; Montgomery & Wernerfelt, 1988). However, the RBV literature also indicates that the development of a strong brand can be resource intensive, as it requires ongoing investments and continuity in marketing efforts; costs relative to benefits tend, however, to become less than proportionate for more established brands (Grant, 2008).

The marketing literature, too, suggests that brands create economic value in a number of ways. A brand can "play a functional, rational or tangible role related to the performance of the product or service … [and] a more symbolic, emotional or intangible role related to what the brand represents to the consumer" (Kotler et al., 2009, p. 426). Based on the premise that consumers can be convinced that brands in a given product market differ from each other in some important way (Kotler et al., 2009), a brand can provide benefits for both customers and the firm (Farquhar, 1990; Keller, 2003). For customers, a brand can facilitate product identification and evaluation (Keller, 2003; Kotler et al., 2009), reduce uncertainty and perceived risk (Keller, 1993, 2003), provide emotions and other psychological benefits (e.g., feelings, status, identity, lifestyle) (Kotler et al., 2009), and create trust (Keller & Lehmann, 2006).

For firms, a brand can shape customer expectations (e.g., in terms of performance and quality) (Keller, 2003), increase marketing efficiency and effectiveness, and increase customer loyalty (Kotler et al., 2009). It can also provide economies of scope (e.g., brand extension or licensing) (Farquhar, 1989), provide legal protection (in the case of trademarks), engender supply and channel partner support, and attract and retain first-grade employees (Kotler et al., 2009).

From an empirical point of view, studies in the field of marketing seem to suggest that brands have a positive effect on the economic performance of the firm (Ailawadi, Lehmann, & Neslin, 2003; Capron & Hulland, 1999; Hong-bumm, Kim, & An, 2003; Kamakura & Russell, 1993; Park & Srinivasan, 1994; Shankar, Azar, & Fuller, 2008; Swait, Erdem, Louviere, & Dubelaar, 1993).

The competence-based oriented literature suggests, however, that the ability of brands to create value is not automatic or universal but depends on the nature of the business environments in which they are deployed. These can range from stable to dynamic, and brands appear to be of high strategic value in moderately dynamic environments, but of lower value in stable or highly dynamic environments (Sanchez, 2008). In short, the relationship between brand names and firm performance is moderated by market dynamism.

Are brands, and by extension brand reputations, also rare among competing firms? The strategic management oriented RBV literature indicates that a brand is imperfectly transferable, as a change in ownership incurs transaction costs (due to imperfect mobility and information asymmetries) and reduces the rent-earning potential when the brand's reputation is linked to the originating firm (Grant, 1991). Furthermore, brands also appear to be relatively inelastic in supply since they require a long time to develop (Grant, 2008). However, it has also been argued that because a brand is not linked to firm-specific assets, such as employees, it is relatively easy to transfer (Durand, 1997). The marketing literature, on the other hand, suggests that a brand may be traded in resource markets (Keller & Lehmann, 2006, p. 745) but that favourable brands are still relatively rare (Capron & Hulland, 1999, p. 43).

In principle, a competitor may attempt to create a successful brand by basing it on an existing brand or creating it from scratch; either of these can be an uncertain process involving substantial investments over fairly long periods (Grant, 2008). However, perfect replication of an existing brand is highly unlikely for a number of reasons. First, brand attributes may be tacit and difficult to observe (see Godfrey & Hill, 1995; Reed & DeFillippi, 1990). Second, as the marketing literature indicates, the nature and trajectory of the marketing efforts and interaction patterns with customers that underlie a particular brand reputation can be hard to comprehend and reproduce (Kotler et al., 2009). Finally, the brand may rely on firm-specific attributes (e.g., firm culture, products) or unique historical conditions (see Grant, 1991).

In terms of substitution, neither the RBV nor the marketing literature seems to indicate that a brand can be substituted through a strategically equivalent resource. It has been suggested, however, that a superior brand name and a superior technology can have similar performance outcomes (e.g., market share) (Rotem & Amit, 1997). Although technology may provide similar outcomes in one or more dimensions, it is, as the discussion of value in this section indicates, probably not a perfect strategic substitute (see Barney, 1991).

9.5 INTEGRATIVE DISCUSSION OF FINDINGS AND LITERATURE

I argue that a distinctive and favourable brand reputation meets all the necessary conditions to be considered a source of sustained competitive advantage – it is valuable, rare, imperfectly imitable, and imperfectly substitutable. In the following, I discuss these conditions in more detail with reference to the findings of this study as well as the general literature.

9.5.1 EVALUATING VRIN: VALUE

To confer competitive advantage, a distinctive brand reputation needs to be valuable to the firm. The respondents in this study indicated that brand reputation can add value to the firm in three major ways.

First, brand reputation can increase customer benefits in such dimensions as emotions, experience, identity, and self-expression. For example, a brand can induce a feeling of safety, lower the perceived risks regarding the reliability of products and services, or increase the social status of the customer. This finding is consistent with the literature, which suggests that a brand can provide emotional and other psychological benefits (Grant, 2008; Kotler et al., 2009), and reduce uncertainty and perceived risk (Grant, 2008; Itami & Roehl, 1987; Keller, 1993, 2003; Sappington & Wernerfelt, 1985).

Second, a distinctive brand reputation can increase the efficiency and effectiveness of marketing communications (e.g., word of mouth). This finding is also consistent with marketing literature, which contends that a favourable brand reputation results in an increase in marketing efficiency and effectiveness (Kotler et al., 2009). As indicated in one case, a special situation arises for cult brands, which involve an unusually strong identification between a brand's stakeholders and the brand that shapes how the brand is perceived by potential customers. The reviewed RBV literature does not specifically mention cult brands as a special type of firm resources. The marketing literature, on the

other hand, suggests that successful brands can achieve cult status, which is understood as a special relationship between the brand and its brand community (Aaker, 1994). However, little research appears to specifically address the effects of brand-community relationships on competitive advantage.

Third, a brand reputation that signals trustworthiness can increase customers' trust in the brand. This seems to be particularly relevant for products and services for which customers find it difficult to ascertain the value ex ante to an exchange (i.e., experience goods) (Grant, 2008). A favourable reputation has the function of a guarantee that the product or service quality will not fall below a certain level and that the owner of the brand will not behave opportunistically, because either of these would jeopardize the brand's reputation. This finding is consistent with the marketing literature, which suggest that a brand can enhance trust (Keller & Lehmann, 2006), as well as with the economics-oriented literature on trust, which suggests that trust in an exchange can lower exchange-related costs when significant exchange vulnerabilities exist and alternative forms of exchange governance are less effective or more costly to implement (Barney & Hansen, 1994).

In addition to these three areas of value identified by the respondents, the marketing and RBV literatures, as noted in the literature review in section 9.4, suggest a large selection of additional brand-related benefits, ranging from a brand's ability to help segment markets to its capacity to attract first-grade employees to the company. As also noted in the literature review section, the literature further points out that brands are not all about benefits: the development and maintenance of a brand may require substantial resources which can reduce the company's brand value creation capacity. On the whole, though, both the empirical and the theoretical literatures as well as the respondents of this study evaluated the impact of brand reputation on firm performance positively. Overall, then, there is considerable support for the claim that a distinctive brand reputation adds value to the firm.

9.5.2 EVALUATING VRIN: RARENESS

In order to be considered a source of competitive advantage, a brand reputation needs to be not only valuable, but also rare. The study suggests that a favourable brand reputation can embody a number of attributes that are individually or in their combination distinctive: these include, for example, quality, reliability, safety, innovation, market leadership, competence, and credibility. These attributes in turn

seem to be linked to firm or brand related attributes, including origin, history, tradition, location, capabilities and competences (e.g., process excellence, innovation capability), technology, and market scope (e.g., focus on a particular customer segment). Some of these attributes are rather immobile and inelastic in supply, which suggests that a distinctive and favourable brand reputation can be rare among a set of competing firms.

Support for this argument can also be found in the RBV literature. There are a least two factors that impede the homogeneity of this resource among competing firms. First, it is an asset that needs to be developed over time, which makes it relatively fixed in supply (e.g., Grant, 2008; Dierickx & Cool, 1989). Second, it is an asset that is imperfectly transferrable: an exchange between firms incurs transaction costs (due to immobility and information asymmetries) and can reduce the asset's rent earning potential when it is disconnected from the originating firm (Grant, 1991; cf. Hall, 1992; Durand, 1997).

9.5.3 EVALUATING VRIN: INIMITABILITY

In order to maintain a competitive advantage over time, a distinctive and favourable brand reputation needs to also meet the condition of imperfect imitability. Due to its immobile character, a brand reputation is not an asset that can be efficiently traded through open markets, which means that it needs to be developed internally by the firm through selecting appropriate development paths (Dierickx & Cool, 1989; Grant, 2008; cf. Keller & Lehmann, 2006). RBV scholars also indicate that the quality of resource accumulation has important implications for the inimitability of a brand reputation. Itami and Roehl (1987) point out that a brand image created through operational activities is more reliable and lasting than one resulting from pure marketing spending. A similar view is expressed by Dierickx and Cool (1989), who suggest that an asset created through complex accumulation processes is more likely to sustain a competitive advantage than one that can be quickly developed by changing corresponding "flow variables", such as the level of advertising.

The imitation of a distinctive and favourable brand reputation is difficult and costly for a number of reasons. One is *causal ambiguity*. Brand reputation may depend on difficult-to-observe attributes like customer perceptions, the relationship between the brand and customers, and the dynamics within the brand community. While it is obviously not impossible for a competitor to use advanced research methods to gain some understanding of these, it can be onerous and expensive to obtain and correctly interpret comprehensive information on them. And in any case, the information may not

illuminate the nature and trajectory of the information, activities, impressions, experiences that originally led to that distinctive and favourable brand reputation (Kotler et al., 2009). Thus, a distinctive and favourable brand reputation is difficult and costly to imitate, because its dimensions are imperfectly transparent (Grant, 1991), difficult to observe (see Godfrey & Hill, 1995; Reed & DeFillippi, 1990), and socially complex (Barney, 1991). Together, these provide formidable barriers to duplication.

A second reason is *path-dependency*. As the study indicates, a brand reputation may be linked to a unique history and other firm-specific attributes, such as geographical location, tradition, origin, competence, technology, market focus, or market position. In one case, respondents mentioned the brand's history itself as an important asset for building a comprehensive and credible brand story. Such a history is highly path-dependent and thus resists quick imitation. Likewise, the competence or tradition of making a particular product for decades is also a path-dependent attribute that impedes replication.

A third reason is *asset interconnectedness*. The accumulation of a distinctive and favourable brand reputation may depend on other critical firm assets, such as the brand community, operational flexibility, and market-orientation. As some respondents pointed out, the imitation of a favourable brand reputation must be based not only on marketing but on the ability to deliver on the promises marketing makes, so that competitors must, to imitate the brand, make changes in aspects of their business beyond marketing. In other words, asset interconnectedness can hinder competitors from successful imitation (Dierickx & Cool, 1989).

A fourth reason is *intrinsic uniqueness*, that is, that the original brand remains the original – even if it is imitated, the imitation is nevertheless a copy that cannot gain the status of the original. All this suggest that the imitation of a distinctive and favourable brand reputation can be difficult, uncertain, and costly.

9.5.4 EVALUATING VRIN: NON-SUBSTITUTABILITY

Finally, in order to sustain a competitive advantage over time, a resource needs to meet the condition of imperfect substitutability (Barney, 1991). A resource is considered imperfectly substitutable when alternatives (i.e., single resources or resource combinations) are either non-existent, functionally inferior, or costly to obtain (Barney & Arikan, 2001; Barney, 1991, 2001a; Dierickx & Cool, 1989; Mahoney & Pandian, 1992; Peteraf, 1993; Wernerfelt, 1984).

The findings of the present study contain no indication that other single firm resources or arrangements of multiple resources could perfectly replace a distinctive and favourable brand reputation, nor have such indications emerged from the review of the RBV and marketing literatures.

Although substitution with other classes of resources seems not to be an option, competitors may nevertheless attempt to develop their own favourable brands on the basis of either an existing or a new brand (Grant, 2008, p. 150). In two cases, respondents indicated that close competitors might be able to reduce the gap in terms of brand reputation by, for example, changing the brand strategy or repositioning their brands, and possibly catch up within a few years. However, although some firms may have the predisposition (i.e., the appropriate resources, including brand management skills, history, and competences) to develop a brand reputation of equivalent functional value, this does not necessarily imply that they can do it at similar costs as the focal firm. Changing the brand strategy or repositioning a brand, as indicated by respondents, can be costly. Furthermore, that some competitors might have the potential to develop a strategically equivalent brand reputation does not imply that all competitors in an industry can do it. This is particularly the case when the development of the resource requires other firm resources that are relatively fixed in supply (e.g., a specific history). This is consistent with the view of Grant (2008) that developing a brand is a complicated process which can involve substantial investments and risks. Thus, a distinctive and favourable brand reputation can be considered imperfectly substitutable.

9.6 PROPOSITION

Based on the above discussion, I suggest the following:

> *Proposition 3 – A brand reputation is a source of sustained competitive advantage if brand associations are cumulatively favourable, strong, and non-substitutable, and distinctive either individually or in combination.*

9.7 CHAPTER CONCLUSION

This chapter concentrated on *brand reputation* as a source of competitive advantage. It presented the findings of the study, reviewed relevant literature, synthesized the findings with the relevant literature, assessed the resource's potential to provide a sustained competitive advantage based on VRIN criteria, and finally developed

conclusions in the form of testable propositions. The study provides strong evidence that a *brand reputation* is a source of sustained competitive advantage.

In the following chapter, a firm's *management team* will be presented as the next major finding that elucidates why performance differs among competing firms.

10 FINDINGS AND DISCUSSION: MANAGEMENT TEAM AND SUSTAINED COMPETITIVE ADVANTAGE

This chapter reports the finding that a *firm's management team* is a major source of sustained competitive advantage. Respondents suggested a variety of ways in which the management team contributes to firm performance, noting, for example, the importance of a management team's ability to motivate employees, provide expert leadership in international markets, and apply theoretical concepts in practice. Some respondents also noted that the management team's specific skills and experience matter: for example, the knowhow of a technology company's management team should not be limited to finances but also encompass technology, while a firm planning to expand overseas ought to have managers who have experience in international markets. Overall, both the respondents and the relevant literature emphasize the significance of the management team in shaping firm performance.

The chapter is organized as follows. After briefly defining the concept of a management team, it offers a detailed discussion of the findings of the study. That discussion is followed by a review of the relevant literature, while the subsequent section synthesizes the study findings and the literature, as well as providing an evaluation of the resource's potential to confer a sustained competitive advantage using RBV logic (VRIN). Finally, the chapter draws conclusions in the form of testable propositions.

10.1 DEFINITION

The definition that has emerged from the present study characterizes the management team as referring to a subset of firm employees with decision-making authority. Human resources associated with the management team may be termed "managerial human resources". Following Barney and Wright's (1998, p. 32) conception of human resources, these may be defined as all the insight, skills, knowhow, experience, and commitment of a firm's managers, their relationships with each other, with employees, and with those outside the firm.

10.2 FINDINGS

Respondents from all firms (cases) suggested that the management team is important or very important to firm performance. In five cases respondents considered it a source of

competitive advantage, in two cases a source of sustainable competitive advantage, and in four cases a source of competitive parity (meaning that the qualities of the management team are a necessary but not a sufficient condition of competitive advantage). This chapter will show that the “management team”, while its overall importance may be obvious, is a relatively broad resource category, and that it is not the category *per se* but its specific attributes that are associated with competitive advantage. The finding thus contributes to our understanding of why some firms perform better than others.

Five broad qualities – *skills, experience, knowhow, mentality,* and *long-term perspective* – can be derived from respondents’ answers regarding what differentiates management teams. Respondents suggested that successful management teams also have different capabilities that eventually lead to superior performance, including the ability to create a productive relationship with employees, to expand in international markets, to seize opportunities, to work as a team, and to translate theoretical concepts into practice. In one case, there is also evidence that the cumulative experience of the management team has a positive effect on firm performance. A final difference between competing firms concerns the completeness of management team qualities, which is a condition of success in two cases. Figure 20 provides an overview of the management team qualities that lead to competitive advantage. In the following, I will describe these concepts in more detail.

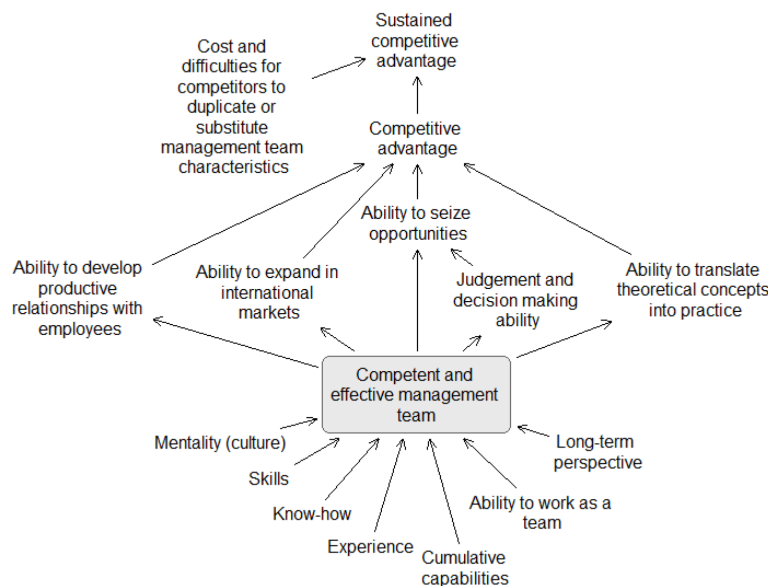

Figure 20: Integrative diagram for “management team”: concepts and their links to sustained competitive advantage.

10.2.1 Skills, experience, knowhow, mentality and perspective

Respondents from C9 suggested that the nature of the management team has been a distinctive factor in the firm's success. The crucial difference seems to arise from a blend of managerial attributes, including knowhow, industry experience, mentality, work relationships, and the comprehensiveness of cumulative capabilities. This view was expressed by, for example, R20 (C9), who affirmed that much of the company's success has to do with the management team – a group of individuals with extensive industry experience, a shared mentality, and a promising business idea. Mentality may be interpreted here as a particular mindset that fits the goals of the firm and that assures that individual team members interpret and respond to their environment in a similar fashion. Put differently, some group thinking or cognitive bias towards the goals of the firm seems to have a positive effect on firm performance. The same respondent also noted that, in contrast to many other start-up firms, C9 has had all necessary skills and abilities under one roof, which is a clear advantage. R21 (C9) emphasized slightly different managerial qualities, pointing out that industry experience and knowhow are key factors of success, particularly in international markets. This respondent noted that many firms underestimate the requirements of global markets and the implications of international expansion, which may come as a surprise – engaging in international expansion without the requisite experience, the respondent added, may turn out to be very costly. This seems to suggest that industry-specific experience in international markets is rare and difficult to substitute, and perhaps also difficult to duplicate in the long run, particularly when it is linked to unique historic conditions or a specific evolutionary path.

In case C4, too, the management team was characterized as favourably distinct from that of competing firms. R10 (C4) noted that managers must be experienced to know which knob to turn to improve performance, and that to be successful, the management team must also have a long-term perspective. A long-term perspective may be interpreted as the ability to identify future opportunities and to sketch out in advance the path to their realization. The same respondent also suggested a correlation between technically educated management teams and firm performance in technology-oriented industries, arguing that financial managers are more concerned with profitability while engineers set their focus more on value adding innovations. R10 further expressed the conviction that technology-driven firms capable of translating technological innovations into new products have a substantial advantage. A further area where C4 seems to have a

competitive strength is strategy implementation: the respondent suggested that understanding theories is a necessary, but not a sufficient condition for success. Translating such concepts into a particular business situation is of greater importance, and indeed, translating them effectively across the organization is an art. According to R10, however, this task is challenging since there is always insufficient information, particularly in the international context.

In case C10, respondents also claimed that the superior returns of the firm are attributable to its management team. R23 (C10) argued that the industry experience and knowhow of the management team are strongly correlated with firm performance, and that experience makes managers more capable of making good judgments and decisions concerning future opportunities. The same respondent explained that the firm invested in a particular product technology that provides higher benefits for customers, which sparked demand and ultimately increased firm performance.

According to R23, none of C10's close competitors seized the opportunity to adopt the new technology; they are now some years behind. In economic terms, C10 has gained a first-mover advantage due to the experience of the management team. Industry experience, this respondent affirmed, increases the management team's ability to see the relevant issues that impede growth. A further condition of success, the respondent noted, is that the CEO has a comprehensive understanding of all relevant business functions, though he added that people with such qualities are relatively rare in the industry.

In case C1, the management team seems to be particularly good at people management. Respondents from C1 suggested that the management team's ability to create a productive and trusting relationship with employees has positive effects on performance. According to R3 (C1), for example, respect, low power distance, and acting as a role model are critical elements in the creation of a productive work environment. This respondent said that the CEO maintains personal relationships with employees (knows all names) at a low power distance (no fancy furniture, etc.). The CEO is also visibly present. The respondent further suggested that the firm is also quick at adjusting employee-related issues: for instance, managers periodically take part in night shifts so as to have the opportunity for more private chats in which to identify potential issues. R3 also pointed out that the management team really cares about the employees and acts as a role model according to the firm's values and management principles, which are

periodically reviewed. Small things like addressing employees by name, R3 added, can make a difference in the effectiveness of a management team.

10.2.2 SUMMARY

In sum, respondents from all cases suggested that the management team is either important or very important to firm performance. In five cases it was considered a source of competitive advantage, in two cases a source of sustainable competitive advantage, and in four cases a source of competitive parity. Respondents suggested five broad qualities that differentiate management teams: *skills, experience, knowhow, mentality,* and *long-term perspective*. Respondents further suggested that these management teams also have a set of capabilities that eventually lead to superior performance, including the *ability to create a productive relationship with employees*, to *expand in international markets*, to *seize opportunities*, to *work as a team*, and to *translate theoretical concepts into practice*. In one case there is also evidence that the *cumulative experience* of the management team has a positive effect on firm performance.

Finally, the completeness of management team qualities was a condition of success emphasized in one case. Respondents in this case suggested that competitors may find it difficult to attain a similar level of firm performance through their management team for a number of reasons. First, they may have difficulty ascertaining which characteristics of the management team contribute to superior returns. Second, even if they knew which characteristics of management teams contribute to competitive advantage, competitors might still have difficulties in developing these characteristics individually and even more so in combination. Some of these characteristics, such as industry experience, need to be developed over time, but may be replicated by a competitor, unless their accumulation is linked to unique temporal or firm-specific conditions.

10.3 LITERATURE

The strategic management oriented RBV literature suggests that managerial human resources are essential for the creation of economic value. Castanias and Helfat (2001, p. 662) note that the firm's manager-related human capital consists of managerial skills, which may include "innate and learned abilities, expertise, and knowledge". These skills may be developed and honed through different processes, including assimilating explicit knowledge (e.g., theories and other information), specific training, and practical experience (e.g., "learning-by-doing") (Castanias & Helfat, 2001). Managerial skills are important for the firm, because managers employ them in the firm's decision-making

processes (Castanias & Helfat, 2001, p. 666). Castanias and Helfat (2001, p. 663) distinguish between four types of managerial skills: "generic, related-industry, industry-specific, and firm-specific". They suggest that the managerial skills that are held by a particular company may differ from those possessed by others; there may be, for instance, variation in "types of managerial skills and in the levels of ability within each type of skill" (Castanias & Helfat, 2001, p. 663).

Castanias and Helfat (2001) assert that managerial skills can confer superior economic returns. Following resource-based logic, these authors suggest that managerial skills may be considered valuable to the firm if the skills are applicable to the firm's setting. The contribution that these skills make to firm performance also depends on the degree to which managers with such superior skills can appropriate associated returns. Castanias and Helfat (2001) postulate that managerial skills contribute to firm performance because they have interdependencies with other firm resources; they state that

> "[b]ecause managerial rent generation entails applying managerial skills to other firm resources, even after payments to managers for their share of 'earned' rents, we might find above-average profitability for firms that have managers with superior (relevant, scarce, hard to imitate and substitute) human capital." (p. 668)

The competence-based management (CBM) perspective also suggests that senior managers – their general outlook as well as their cognitive abilities – are critical for firm success. In this perspective a firm's competitiveness is seen as largely determined by its "strategic logic" and "system design" for obtaining, coordinating, and deploying corresponding resources as well as for adequately compensating resource providers (Sanchez & Heene, 2004). The term "strategic logic" refers to the outcome of the process of determining viable firm goals and action plans for attaining those goals (Sanchez et al., 1996a; Sanchez & Thomas, 1996). The CBM perspective suggests that senior managers can contribute to competitive advantage when they have superior abilities (i) to devise a strategic logic that generates economic value, (ii) to implement an effective system for realizing the strategic logic, and (iii) to obtain an ongoing commitment for needed resources by ensuring that the value distribution process is transparent, fair, and aligned to the resource contributors' individual goals (Sanchez & Heene, 2004). CBM scholars also point out that devising and implementing a viable strategic logic can be complicated when the firm's environment is multifaceted, dynamic, and difficult to predict (Sanchez et al., 1996a). Some scholars argue that such situations and the way information is

processed by managers can lead to distortions and delays, making it nearly impossible for the management team to completely disentangle a firm's "situational puzzle" alone (Bogaeart, Martens, & Van Cauwenbergh, 1994). However, senior managers can alleviate this problem by tapping into and mobilizing the intellectual capacity of all the resource providers of the firm (Sanchez & Heene, 2004) and by extending their own strategic thinking capability, for example, through cognitive and causal mapping techniques and through group decision support systems (e.g. Eden & Ackerman, 2010; Eden & Ackermann, 1998, 2001; Eden, 1990; Jenkins & Johnson, 1997).

There seem to be a number of factors that can influence the impact of managerial human resources on firm performance. One is the commitment of managers to effectively put their skills to work (Castanias & Helfat, 2001). According to Castanias and Helfat (1991), top managers with superior skills have a natural motivation to apply them productively (i.e., with the least opportunity costs) so that they can appropriate a fair share of the rents achieved. Other factors that can potentially influence the skills-performance relationship include individual factors such as risk-taking propensity, environmental factors such as the life cycle stage of markets, and firm-level factors such as asset size (Castanias & Helfat, 2001).

Much of the research on human resources and organizational effectiveness seems to assume that managerial skills are not equally distributed among firms (Wright et al., 1994). Generic skills, however, seem to be more equally distributed than specialized skills (Barney & Wright, 1998). Generic managerial skills are relatively easy to transfer and thus provide little potential for competitive advantage, while more specialized managerial skills (e.g., those related to firm-specific processes or technologies) are less easy to transfer and thus provide a higher potential for generating economic value (Barney & Wright, 1998). Wright et al. (1994), however, contend that valuable and rare qualities of managers add little or no economic value to the firm when managers are able to appropriate most of the income attributable to those qualities (cf. Castanias & Helfat, 1991). Nevertheless, a firm may still be able to appropriate a share of these rents relative to the investment made by the firm in developing these rare characteristics, assuming that managers do not behave opportunistically (i.e., when no "holdup" occurs – see Klein, Crawford, & Alchian, 1978).

To sustain a competitive advantage over time, the valuable and rare characteristics of managerial human resources must also be immune from low-cost imitation. As discussed

above, some categories of managerial human resources, such as generic transferable skills, may be obtained in labour markets and thus permit low-cost replication. However, when these labour markets are not perfectly efficient, a firm may achieve a temporary advantage over competitors. On the other hand, rare and specialized managerial human resources may be more difficult to replicate.

One barrier is *causal ambiguity*: it may be difficult for a competitor to understand which managerial human resources contribute to firm performance, and how they do so. Castanias and Helfat (1991) indicate that managerial skills have dimensions that are implicit and difficult to observe. They note further that the accumulation of these skills may rely on a fuzzy, idiographic, situational learning process. Competitors may hence find it hard to determine with certainty which skills should be replicated and how such replication may be achieved.

A second mayor barrier is *asset specificity*: the utility of managerial assets may rely on specific characteristics of the firm, or the specific conditions in which they are applied (Castanias & Helfat, 1991). Hence, in the absence of those specific firm or contextual characteristics, a competitor will not be able to exploit a specific asset to its advantage.

A third barrier to imitation is *social complexity*; teamwork among management team members is one such socially complex asset, and hence extremely difficult for competitors to replicate.

10.4 INTEGRATIVE DISCUSSION OF FINDINGS AND LITERATURE

Respondents from all firms (cases) suggested that the management team is important or very important to firm performance. In five cases, respondents considered it a source of competitive advantage, and in two cases a source of sustainable competitive advantage. The management team may be considered a special group of firm employees with decision-making authority. Management teams may be understood as a complex bundle of human resources, including knowledge, experience, skill, commitment, and social relationships (see Barney & Wright, 1998, p. 32).

10.4.1 EVALUATING VRIN: VALUE

The present study suggests that successful management teams possess skills, experience, knowhow, mentality, and perspectives that management teams at competing firms are not as amply endowed with, such as skills in the creation of a productive relationship with employees, expansion into international markets, seizing

opportunities, translating theoretical concepts into practice, and teamwork. In some cases, respondents also noted that the experience of the management team or the completeness of the team's qualities made a difference. All these characteristics are valuable and rare and contribute to superior firm performance.

The value of management team is also noted in the literature. The more traditional RBV literature suggests that specific managerial skills can add value to the firm (Barney, 1991; Castanias & Helfat, 1991, 2001), while the more CBM oriented literature indicates that the mindset and the cognitive abilities of the management team are important to firm success (Sanchez & Heene, 2004).

10.4.2 EVALUATING VRIN: RARENESS

The study clearly suggests that the management teams of competing firms are heterogeneous. The RBV literature seems to concentrate on managerial skills, suggesting that these are not equally distributed among firms (Wright et al., 1994), although some scholars have suggested that unlike specialized skills, generic managerial skills are relatively easy to transfer and thus provide little potential for competitive advantage (Barney & Wright, 1998). Some researchers have also argued that managers may be able to appropriate some or all of the income associated with their valuable and rare qualities, which means that these qualities add little or no economic value to the firm (Wright et al., 1994). The present study clearly indicates that valuable and rare management team characteristics lead to superior firm performance, which implies that management teams' ability to appropriate value is limited. In other words, there is a positive relationship between mentioned management team qualities and competitive advantage.

10.4.3 EVALUATING VRIN: INIMITABILITY

Respondents suggested that it may be hard for competitors to fashion a management team that is equally effective in creating value for the firm as the management teams at their firms. First, competitors may find it difficult to ascertain the characteristics of the management team that contribute to superior returns (causal ambiguity). Second, even knowing the rare characteristics of management teams contribute to competitive advantage might not allow competitors to actually develop such characteristics, particularly not in the specific combination prevalent at the managerial team of the high-performing firm (social complexity, asset stock interconnectedness, path dependency). Some of these characteristics, such as industry experience, may also be linked to unique

temporal or firm-specific conditions. A further difficulty exists for competitors when (as indicated in one case) a competitive advantage is based on a particular combination of management team characteristics (causal ambiguity, social complexity). The imitation barriers found in the present study seem to correspond with the literature on imitation barriers, including causal ambiguity (Dierickx & Cool, 1989; Lippman & Rumelt, 1982; Peteraf, 1993), social complexity (Barney, 1986a; Barney & Clark, 2007), asset stock interconnectedness (Dierickx & Cool, 1989), path dependency (Lippman & Rumelt, 1982), and unique historic conditions (Barney, 1991). All this suggests that the above-mentioned rare management team characteristics (skills, knowhow, experience, mentality, and perspective) are difficult or costly to replicate.

10.4.4 EVALUATING VRIN: NON-SUBSTITUTABILITY

Neither the study nor the literature indicates that a distinctive management team – that is, distinctive in terms of skills, experience, know-how, mentality and perspective – can be substituted by strategically equivalent firm resources. This does not, however, imply that technological assets such as advanced IT systems cannot in part replace the functions of a management team. Such systems may, for instance, support decision-making processes, and hence to some extent substitute for human skills and experience. However, a distinctive management team represents, from a resource-based perspective, an imperfectly substitutable resource.

10.5 PROPOSITION

Given the results from the study and from the literature review, I suggest the following:

> *Proposition 4 – Distinctive and favourable management team characteristics (skills, knowhow, experience, mentality, and perspective) are likely to be a source of sustained competitive advantage if (1) they are imperfectly mobile, (2) their associated rents are imperfectly appropriable by management team members, and (3) their imitability is uncertain (e.g., due to path dependency, causal ambiguity, social complexity, or asset interconnectedness).*

10.6 CHAPTER CONCLUSION

This chapter concentrated on the firm's *management team* as a source of competitive advantage. It presented the study finding, reviewed relevant literature, synthesized the findings and the literature, assessed the resource's potential to provide a sustained competitive advantage based on VRIN criteria, and finally developed conclusions in the

form of testable propositions. The study provides strong evidence that a firm's *management team* is a source of sustained competitive advantage.

In the following chapter, *employees* will be presented as the next major finding that elucidates why performance differs among competing firms.

11 FINDINGS AND DISCUSSION: EMPLOYEES AND SUSTAINED COMPETITIVE ADVANTAGE

11.1 CHAPTER INTRODUCTION

This chapter reports the finding that a *firm's employees* represent a major source of sustained competitive advantage. Respondents suggested that employees have an impact on, among other things, the firm's reputation and the quality of its relationships with its customers. Employees contribute value to the firm through the specific skills, knowhow, and experience that they possess, but also through other intangible qualities like mentality and motivation. The present study found that in cultivating skills and knowhow, an important factor was the strategic focus of the firm: the employees of a firm with a well-defined focus on a particular technology, customer segment, or application, respondents argued, are more likely to develop a high level of expertise that then contributes to firm performance.

The chapter is organized as follows. It first briefly defines the concept of employees as a resource, and then proceeds to elucidate the findings of the study. Next, it reviews the relevant literature, which is then synthesized with the study findings; the synthesis also uses RBV logic (VRIN) to evaluate the potential of the identified resource to provide a sustained competitive advantage. Finally, it develops conclusions in the form of testable propositions.

11.2 DEFINITION

In the RBV literature, the term "employees" refers to all human resources including "all of the knowledge, experience, skill, and commitment of a firm's employees, their relationships with each other, and with those outside the firm" (Barney & Wright, 1998, p. 32). This definition also sums up the characteristics of employees as a resource that has emerged in the present study.

11.3 FINDINGS

Respondents from all firms (cases) suggested that employees are important or very important for firm performance. In two cases they were considered a source of competitive advantage, in four cases a source of sustainable competitive advantage, and in five cases a source of competitive parity. Competitive parity means that among a set

of competing firms the skills and abilities of employees do not vary much from firm to firm and therefore cannot be the source of superior returns. This does not, however, imply that these skills and abilities are unimportant; they may be a necessary condition for the exploitation other valuable resources of the firm. In about half the cases, however, respondents suggested that differences in terms of employees lead to superior returns (Figure 21).

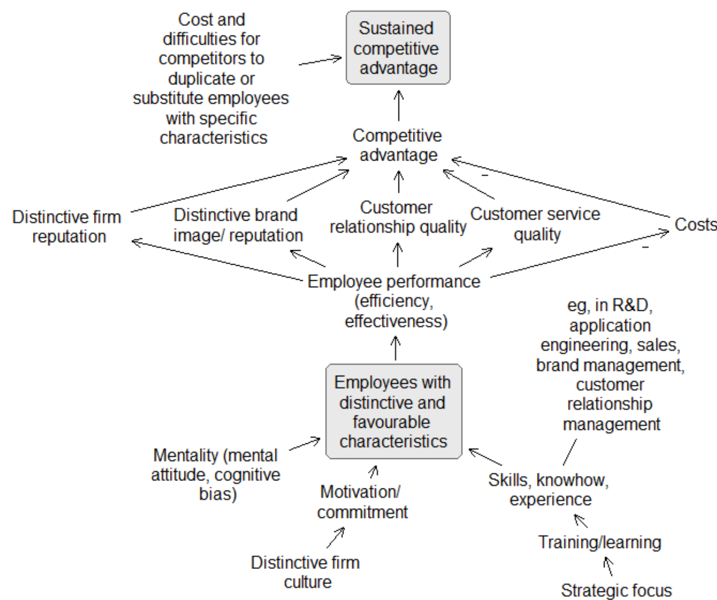

Figure 21: Integrative diagram for "employees": concepts and their links to sustained competitive advantage

Respondents suggested that motivation, mentality, experience, knowhow, and skills have a positive impact on employee performance (efficiency/effectiveness). Employee performance, in turn, may positively affect a number of factors – such as firm reputation, brand image/reputation, customer relationship quality, customer service quality, and costs – that ultimately contribute to competitive advantage. In the following, I will describe these concepts in more detail.

11.3.1 SKILLS, KNOWHOW AND EXPERIENCE

Respondents suggested that there are differences between firms in various areas, including production technology, engineering, sales, brand management, and customer relationship management. R24 (C10), for instance, suggested that superior knowhow in a particular production technology gives C10 a competitive edge: the company adopted a production technology earlier than close competitors, which gave them early mover advantages such as proprietary learning. Competitors might find it more difficult to

acquire similar learning experiences when technology progresses towards maturity and the number of customers keen to experiment declines. Still, competitors may gradually build up their knowledge, which suggests that the advantage is rather short-lived. The same respondent furthermore found that the firm has more competent people in areas like logistics, a point whose relevance the respondent believes is often underestimated, suggesting that competitors may not be fully exploiting the potential value in this area.

In case C1, there are also important differences among competing firms. R2 (C1) said that the firm has relatively high capabilities in areas like engineering, since these activities are performed in-house, while competitors cooperate with other market participants and institutions. The same respondent further suggested that the technical competence of employees has a positive impact on customer acquisition: the firm may provide this value to potential customers in the form of technical advice and calculations (provides safety for the customer), which in turn has a positive impact on sales (it creates an obligation for the customer to place an order; service is delivered on a trust-basis; costs for customers are deferred). In case C9, there seems to be a difference related to the sales force. R20 (C9) suggested that the competence and experience of the sales force is an important instrument with which to differentiate the company from close competitors. The company's sales force, R20 believes, can provide comparatively more value to customers, for instance, in the form of advice and information. It seems to be important for C9 that customers regard them not simply as suppliers but rather as partners. Consequently, the firm (C9) is very keen on hiring people with appropriate skills and extensive industry experience. These stringent hiring criteria, R20 suggested, are important to the firm's differentiation strategy, but at the same time they constrain the growth potential of the firm, because the availability of such people is clearly limited. This respondent also noted that the scarcity of people with extensive industry experience makes it difficult for competitors, particular larger ones, to adopt a similar strategy.

In case C8, the competitive strength lies in the area of application engineering. R18 (C8) suggested that one way to provide distinct value to customers is through application engineering services. In some applications, according to this respondent, the firm has higher levels of aggregated knowhow than close competitors, allowing the firm to provide relatively comprehensive and high quality services. R19 (C8) said that, for many customer segments, the buying criteria have shifted from the product to the service area – the product increasingly becomes a commodity and the scope and level of service

become ever more important. This statement suggests that the value of knowhow may be linked to industry life cycle stages. Much the same is the case of C3, which also has competitive strength in the sales force. Respondents from C3 suggested that the company's sales force has a strong technical competence. This competence allows the firm to sell a complex bundle of products and services more effectively than competitors. These products and services, in turn, allow customers to integrate their supply chain more tightly and to make parts of their operations more efficient. Respondents from C3 suggested that competitors lacking a competent sales force are not able to replicate the firm's (forward integration) strategy. However, this does not suggest that C3's distinct sales force is completely immune to planned imitation – competitors may be able to gradually build a competent sales force, or gain access to one through, for instance, an alliance, a merger, or an acquisition.

In case C11, one of the central strengths seems to stem from building customer relationships. Respondents from C11 suggested that the company has been able to develop lasting and loyal relationships, which seem to be the result of a distinct mix of employee qualities, including skills, knowledge, experience and motivation. Finally, in case C5, there seems also to be a difference in terms of brand management. R13 (C5) argued that generating a strong brand requires experience and knowhow, and that the people who make the brand and maintain relationships with customers can make a real difference. Indeed, according to this respondent, some of the company's people are quite special – even a bit "crazy". In case C2, the differences seem to be less related to skills and abilities than to the attitude and behaviour of the company's employees. R4 (C2) thinks that C2's people are more dynamic, aggressive, and entrepreneurial-thinking than those working for competitors, and believes strongly that close competitors would have difficulties emulating these qualities because their organizations are further away from the markets. Put differently, closeness to markets is a critical condition in the accumulation or development of these qualities. Employees with appropriate skills, R6 (C2) noted, are relatively rare, and thus need to be developed internally over time, though this respondent acknowledged that competitors might still be able to decrease their disadvantage by enticing qualified people from rivals. This seems to suggest that the skills and abilities of employees are relatively mobile in the industry of C2, and are therefore unlikely to be a basis for persistent superior returns.

11.3.2 MENTALITY

A somewhat different but recurring theme is employees' mentality. Mentality may be understood as a fixed paradigm, or intellectual attitude, that determines how people interpret and respond to situations. In this sense, it is a cognitive bias, which may be informed by experiences, beliefs, values, and assumptions. Respondents from one case (C9), in particular, suggested that positive economic effects result when mentalities of people are consistent with each other and with the goals of the firm. R20 (C9), for instance, pointed out that qualified, experienced people with a certain mentality contribute to firm performance.

11.3.3 STRATEGIC FOCUS

Respondents suggested that a strategic focus in the development of human capital resources has a positive impact on firm performance. R11 (C4), for instance, suggested that focussing on a particular technology and application area has a positive impact on knowhow, efficiency, and training; close competitors cover broader areas and can thus be at a competitive disadvantage. In a similar vein, R18 (C8) affirmed that the firm's focus on particular technologies, customer segments, and applications allows it to develop specific knowhow and competences; this in turn enables the firm to provide distinct services to customers, such as application engineering. This respondent added that these services lead to customer satisfaction and eventually to customer loyalty. R2 (C1) also suggested that the focus that C1 has on a particular technology has a positive impact on employee performance and ultimately on firm performance, explaining that C1 has distinctive competences in the design, construction, and maintenance of machines based on that technology. That focus, this respondent emphasized, furthers knowhow, which allows the firm to provide customers valuable services. ('Valuable', here, means that these services have a positive impact on product lifetime and cost and thus on perceived customer value). Economically, these focus effects may be explained as follows. Focus may lead to economies of scale in training. Economies of scale exist when an increase in training capacity (people with the same training curriculum) lead to less than proportionate costs. Focused firms may have more volume per curriculum than more diversified firms of similar size, and thus enjoy scale economies. Even more important seem to be economies of specialization, meaning that a firm concentrates its accumulation of resources and capabilities in a specific domain. Focussing seems to increase the efficiency of these accumulation processes (e.g. learning). Consequently, specialized firms may develop higher levels of domain-specific skills, knowhow, and

experience than more diversified firms. R2 (C1) provided a practical example from C1's industry: the firm's service engineers have in their domain a higher competence level than close competitors, since the service engineers of competitors have to cover a broader portfolio of technologies and products.

11.3.4 SUMMARY

In sum, respondents from all firms (cases) suggested that employees are important to firm performance. In two cases they are considered a source of competitive advantage, in four cases a source of sustainable competitive advantage, and in five cases a source of competitive parity. Respondents, however, point to a set of employee-related differences that contribute to superior employee performance. Superior employee performance means that these employees are either more effective, or more efficient, or both, compared to those of close competitors. Superior employee performance comes from a number of sources, including motivation/commitment, mentality, skills, knowhow, and experience of employees. Respondents suggested that differences in skills, knowhow, and experience exist in various areas, including production technology, engineering, sales, brand management, and customer relationship management.

A strong contributor to differential skills, knowhow, and experience is strategic focus. Strategic focus means here that the scope of the firm, particularly in terms of technologies and products, is relatively small. However, employee performance has a number of effects that lead to competitive advantage, including effects on firm reputation, brand image/reputation, customer relationship quality, customer service quality, and costs. Respondents suggested that competitors may have difficulties in attaining a similar level of firm performance through their people for a number of reasons. First, they may find it difficult to ascertain which characteristics of employees contribute to above-normal employee performance and ultimately to competitive advantage. Second, even knowing the rare characteristics of employees that contribute to competitive advantage would not guarantee that competitors could imitate them at low costs. Some of these rare characteristics may also depend on a certain development path or specific development conditions that are difficult or costly for competitors to emulate. For instance, the characteristic of strategic focus may require substantial changes in organizational structures from more diversified firms.

11.4 LITERATURE

The competence perspective regards employees as resource providers who contribute their resources to generating economic value and expect in exchange some form of compensation that reflects their effective contribution (Sanchez, Heene, & Thomas, 1996b; Sanchez, 2004). A key difference between employees and other resource providers is that employee resources are exchanged and coordinated internally through hierarchical governance mechanisms, while those of other providers are exchanged through market mechanisms (Sanchez & Heene, 2004). According to this conceptualization of the firm as a coordinative system of resources to generate and allocate economic value, it can be argued that a firm does not own these resources, but rather has some privileged access to them, as well as some level of autonomy to modify and use them.

The question, however, is whether all these human resources are also potential sources of competitive advantage? A first condition is, of course, that they must somehow add economic value to the firm – human resources or characteristics of human resources that do not contribute directly or indirectly to this end may be considered competitive weaknesses (Barney, 1991).

There is a large corpus of literature that examines various human resources in terms of characteristics, cause, and effect. In the strategic human resource management (SHRM) literature, however, much of the discussion on human resources and firm performance concentrates on employee competencies and employee behaviour. According to this literature, employee competencies, which include skills, knowledge and abilities, are not valuable by themselves; they can only support the value creation process when they are effectively used and coordinated within the firm and when employees are committed to attain organizational goals (Wright et al., 1994).

The strategic management oriented RBV literature, on the other hand, suggests that value can be created through combinatory effects and skills. Combinatory effects may result when human resources are effectively used in a "team production" process (Barney & Wright, 1998, p. 39), that is, when a given set of human resources produces more output than individual resources alone (Alchian & Demsetz, 1972, p. 779). Similarly, combinatory effects may also occur when skills and knowledge of employees are embedded in the organization (Kogut & Zander, 1992) or combined with other firm resources to form competences (Eden & Ackermann, 1998; Sanchez et al., 1996b).

This literature also focuses on a particular category of human resources: employee skills. Barney and Wright (1998) differentiate between generic skills and contextually-bounded skills. Generic skills are not specific to a particular work environment, and hence are easily transferable between firms (Barney & Wright, 1998). Under the assumption that resource markets for generic skills are more or less efficient, such resources cannot offer long-lasting advantages over other firms (Barney, 1986b). Nevertheless, generic skills are not irrelevant: first, they are important to maintaining competitive parity (Barney & Wright, 1998) and, second, they constitute an important feature of employee contracts, since employees may expect compensation in the form of generic skills to assure their own employability (Kissler, 1994). Although generic skills seem to offer little potential for competitive advantage, there may nevertheless be some level of heterogeneity of generic skills among competing firms, since these skills may be performed at different levels ranging from 'novice' to 'mastery'. Thus, if a firm holds valuable 'mastery-level' general skills that are at the same time not perfectly elastic in supply, it may enjoy at least a temporary competitive advantage (Barney & Wright, 1998)

Specialized skills, on the other hand, are contextually bound and cannot easily be transferred between firms; they thus carry a higher potential for competitive advantage (Barney & Wright, 1998; Dierickx & Cool, 1989). A firm may accumulate these skills through training, coaching, and other forms of learning that allow employees to conduct firm-specific operations and activities (Hatch & Dyer, 2004; Sanchez, 2004). A central aspect in the accumulation process of specialized skills is organizational learning, that is, the ability to create and disseminate tacit, firm-specific knowledge (e.g., Kogut & Zander, 1992; Miller, 1996; Senge, 1990; Spender & Grant, 1996).

If supply in labour markets exceeds demand over an extended period of time, one might not expect human resources in general to be scarce. However, Wright et al. (1994) suggest that while this assumption may be true for job categories requiring undifferentiated skills, it is not true for job categories requiring specific skills, which in effect broaden the range of performance levels at which jobs can be conducted. These specific skills, they point out, are not homogeneously distributed among workers – and those firms that have been able to amass exceptionally high levels of specific skills possess a rare resource. In addition to these tradable human resources, a firm's resource portfolio may also comprise nontradable resources, such as specialized skills or knowledge that have been developed through firm-specific development pathways (Dierickx & Cool, 1989). To the extent that these nontradable human resources differ in

terms of cost and functionality from those of competing firms, they can be considered rare (see Peteraf & Barney, 2003).

To sustain a competitive advantage over time, however, RBV logic suggests that valuable and rare characteristics of human resources need to also be imperfectly imitable.

A first aspect that could hinder competitors from successful imitation refers to *causal ambiguity* and *intransparency* (Barney, 1991, 2001a; Dierickx & Cool, 1989; Grant, 1991; Lippman & Rumelt, 1982; Mahoney & Pandian, 1992; Peteraf, 1993; Reed & DeFillippi, 1990). A competitor may be hard put to identify the significant distinctive characteristics of human resources, how they contribute to firm performance, and what pathways have been used to develop them. For example, when human resources generate value through 'team production' (see Alchian & Demsetz, 1972), it may be difficult to trace superior firm performance to its source (Wright et al., 1994).

A second possible imitation barrier refers to *asset interconnectedness* (Dierickx & Cool, 1989). For example, the development of particular problem solving skills may have been sparked by a distinctive firm culture, which places heavy emphasis on customer satisfaction.

A third possible imitation barrier is *firm history* (Barney, 1991). For instance, a historic event, such as the recall of a faulty product, may have resulted in specialized skills to mitigate such risks.

A fourth possible imitation barrier is *social complexity* (Barney, 1991). Wright et al. (1994, p. 310) suggest that work relationships of employees with members from other organizations (e.g., suppliers, customers, or distributors) can result in valuable "transaction-specific" assets, such as "knowledge" and "trust", that support competitive advantage, and that such advantages can be sustained since the structure and the dynamics of those work relationship represent complex social puzzles.

A final factor is *path dependency* (Dierickx & Cool, 1989). The development of specific skills and other human resources may rely on path dependent learning processes (see Barney & Clark, 2007). Thus, competitors following a learning path different from the focal firm would have to undo their learning, return to the beginning (or to the point where they left the target path) and continue their learning process from there.

In terms of non-substitutability, the strategic management oriented RBV literature does not explicitly address the extent to which valuable, rare, and difficult to imitate employee

characteristics can be substituted through other strategic resources. However, Wright et al. (1994) suggest that some human resources might be substituted by technology. They argue that if such technology is freely available, the substitution effect for a competitor is only temporary since the focal firm could also adopt the same technology and use its portfolio of valuable and scarce human resources in a different way to restore competitive advantage; conversely, if the technology is scarce and imperfectly imitable and substitutable, the substitution effect may be more enduring.

In summary, the literature on human resources and competitive advantage places a clear emphasis on skills. Generic skills are viewed as important for a firm to establish at least competitive parity, but cannot, with some exceptions, form the basis for competitive advantage. Specialized skills, on the other hand, provide more potential for competitive advantage. These specialized skills may be difficult to replicate due to *causal ambiguity*, *path dependency*, *asset interconnectedness*, *firm history*, and *social complexity*. Given that these firm-specific human resources cannot be easily substituted by other firm resources, such as technology, they appear to provide long-lasting benefits for the firm.

11.5 INTEGRATIVE DISCUSSION OF FINDINGS AND LITERATURE

Respondents from all firms (cases) suggested that employees are important or very important to firm performance. In two cases they are considered a source of competitive advantage, and in four cases even a source of sustainable competitive advantage. The RBV literature, too, emphasizes the significance of skill, and further suggests that human resources are most effective when used in "team production" (Barney & Wright, 1998, p. 39), that is, in a way that a given set of human resources produces more output than individual resources alone (Alchian & Demsetz, 1972, p. 779).

The present study further specifies these results by suggesting a set of employee-related characteristics that contribute to superior employee performance (i.e., efficiency and/or effectiveness): (i) motivation/commitment; (ii) mentality; and (iii) skills, knowhow and experience. Respondents suggested that differences in skills, knowhow, and experience exist in various areas, including production technology, engineering, sales, brand management, and customer relationship management. The present study suggests furthermore, that strategic focus – a clearly defined technological or product scope – is a strong contributor of valuable and rare skills, knowhow, and experience. This effect may be in part reflect what has been described as organizational learning (Miller, 1996; Senge, 1990).

In the strategic management oriented RBV literature the emphasis is clearly laid on skills as a possible source of differential firm performance (e.g., Barney & Wright, 1998). This literature, however, does not seem to consider fully the other ways, located in this study, in which employee characteristics may contribute to differences between firms and to competitive advantage. There is also little research exploring how valuable and rare human resources, including skills, know-how, and experience, come into being.

11.5.1 EVALUATING VRIN: VALUE

The data suggests that all these rare and valuable characteristics of employees lead to high employee performance (efficiency, effectiveness). High employee performance can ultimately increase competitive advantage through a number of effects, including firm reputation, brand image/reputation, customer relationship quality, customer service quality, and costs. All these resources are mentioned in the RBV literature. Itami and Roehl (1987) describe these links as an accumulation process of invisible assets; many of these assets, however, are considered to be simply by-products of other firm capabilities.

11.5.2 EVALUATING VRIN: RARENESS

The study clearly indicates that all these attributes (motivation/commitment, mentality, skills, knowhow, and experience) can be rare, individually or in combination.

The RBV literature seems not to consider all these differences as possible causes of competitive advantage. The focus there is clearly set on skills. Barney and Wright (1998) suggest distinguishing between *generic* and *specialized* skills since these have a different potential for competitive advantage*, the former being more easily transferable than the latter, though not necessarily unimportant for that (as other scholars too have noted).* In general, the literature seems to suggest that *generic* skills are more homogeneously distributed among competing firms than *specialized* skills (Wright et al., 1994). Specialized skills may be considered an imperfectly tradable resource relying on firm-internal development processes (Dierickx & Cool, 1989). The same logic may be applied all other employee related attributes found by the study including motivation, commitment, mentality, knowhow, and experience. Thus, these employee related attributes can be considered rare to the extent that (1) their use value depend on a particular firm or context, and (2) they are in combination imperfectly inelastic in supply (see Peteraf & Barney, 2003). This was, for example, a finding in C9 in which respondents

pointed out that experienced people with a certain mentality are extremely rare in their industry.

11.5.3 Evaluating VRIN: Inimitability

To sustain a competitive advantage over time, RBV logic suggests that valuable and rare characteristics of human resources need to be, in addition, imperfectly imitable to confer a competitive advantage. Respondents suggested that competitors may encounter difficulty in replicating performance levels through the deployment of human resources for a number of reasons. First, competitors may be unable to ascertain which characteristics of employees contribute to above normal employee performance and ultimately to competitive advantage (see Lippman & Rumelt, 1982). Second, even if they knew those characteristics, competitors might still be unable to imitate them at a low cost. Some of these rare characteristics may depend on specific development paths (see Lippman & Rumelt, 1982), unique historic conditions (Barney & Clark, 2007), or other accumulation conditions, such as asset stock interconnectedness (Dierickx & Cool, 1989), that make them hard or costly to emulate for competitors.

11.5.4 Evaluating VRIN: Non-substitutability

Employees with the afore-mentioned characteristics appear to be difficult to replace with other resources or bundles of firm resources. A first reason, as discussed above, is *causal ambiguity*. As long as there is uncertainty about the specific employee characteristics and how they operate with other firm resources to generate economic value, a competitor cannot know what to substitute. Second, as common sense suggests, there are unlikely to exist perfect substitutes for employees with distinctive characteristics: otherwise such substitutes would already have been adopted. However, this does not imply that competitors may not be able to substitute parts of distinctive employee characteristics with other resources, such as information technology. In the insurance industry, for example, specialized employee skills in detecting fraud may be substituted with advanced fraud detection software.

11.6 Proposition

This leads to the following:

> *Proposition 5 – Rare characteristics of human resources (skills, knowhow, experience, mentality) are likely a source of sustained competitive advantage, when they are specialized or relatively immobile.*

11.7 CHAPTER CONCLUSIONS

This chapter concentrated on *employees* as a source of competitive advantage. It presented the study findings, reviewed the relevant literature, synthesized the findings and the literature, assessed the resource's potential to provide a sustained competitive advantage based on VRIN criteria, and finally developed conclusions in the form of testable propositions. The study provides strong evidence that *employees with particular characteristics* represent a major source of competitive advantage.

In the following chapter, *relationships* will be presented as the next major finding that elucidates why performance differs among competing firms.

12 FINDINGS AND DISCUSSION: RELATIONSHIPS AND SUSTAINED COMPETITIVE ADVANTAGE

12.1 CHAPTER INTRODUCTION

This chapter reports the finding that *close and enduring relationships with customers and other market participants* are a major source of sustained competitive advantage. Respondents noted that appropriate customer relationships were important in, for instance, selling complex products and services, increasing trust, and improving service quality; further, they suggested that direct and close customer relations might help the firm to enhance and renew its products, as they provide the firm with information regarding customer needs and preferences. Relationships with other market participants did not play as prominent a role in the comments of the respondents to the present study, though the significance of such relationships is emphasized in the literature and will be discussed at some length below.

The chapter is organized as follows. After briefly defining "relationships", the chapter offers a detailed discussion of the findings of the study, which is followed by an examination of the relevant literature. These are then integrated into a discussion that also uses RBV logic (VRIN) to evaluate the potential of the resource to provide a sustained competitive advantage. Finally, the chapter develops conclusions in the form of testable propositions.

12.2 DEFINITION

Firms maintain a variety of relationships with market participants to acquire, share, exchange or co-developing resources required for the firm's value creation process as well as to exchange goods and services. These relationships can be defined as exchange arrangements, which can range from arms-length, pure transactional exchanges to collaborative, deeply integrated, long-term exchanges (Anderson & Narus, 1991; Thorelli, 1986). This definition of relationships tallies well with the concept of relationships that has emerged from the present study.

12.3 FINDINGS

Respondents from all 11 firms (cases) suggested that the relationships of employees and managers with customers and other market participants contribute to firm performance.

In two cases (C2, C8), these relationships were considered a source of competitive advantage and in four cases (C3, C7, C10, C11) a source of sustained competitive advantage. The general significance of such relationships for firm performance is to some extent obvious; however, as this chapter will show, the specific ways in which particular kinds of relationships add value to the firm are worth close analysis.

12.3.1 Customer relationships

The diagram below provides an overview of the concepts related to customer relationships and competitive advantage.

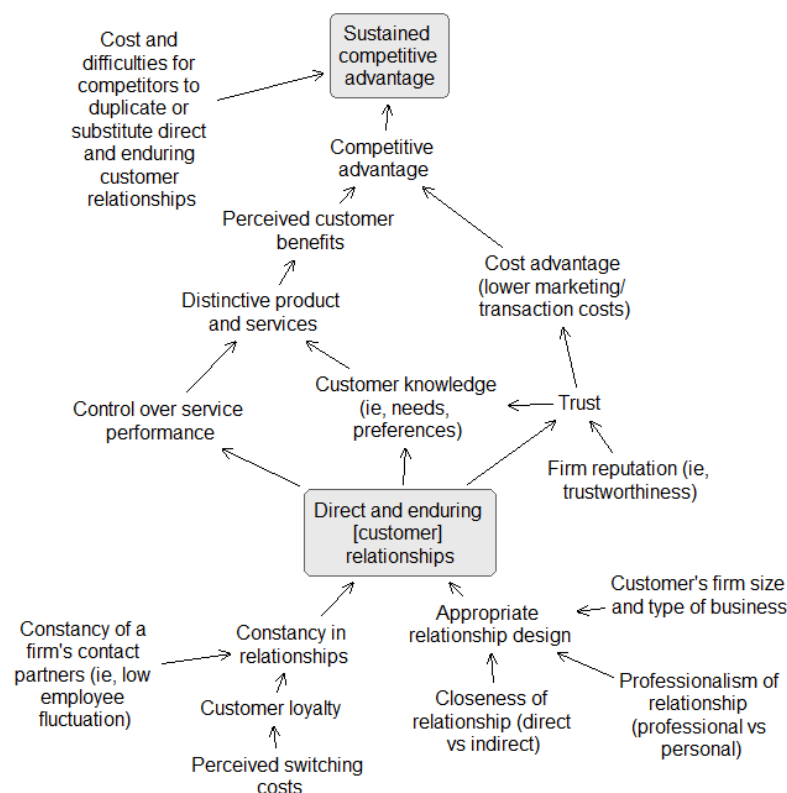

Figure 22: Integrative diagram for "customer relationships": concepts and their links to sustained competitive advantage

A large number of respondents suggested that close, enduring customer relationships where trust is present contribute to the performance of their firm. Direct and enduring relationships, together with reputation, increase trust, which in turn decreases transaction costs. Second, direct and enduring relationships, together with trust, increase customer knowledge, which in turn leads to distinctive products and services. Third, direct and enduring relationships increase service quality, which leads to distinctive products and services. Both low transaction costs and distinctive products

and services lead ultimately to competitive advantage. In the following, I will describe these concepts in more detail.

In case C3, for example, respondents indicated that direct customer relationships are a necessary condition for effectively communicating and selling C3's relatively complex offering of products and services, as well as for providing corresponding advisory and application services. Customer relationships, they believed, are an important resource in increasing firm performance. According to R8 (C3), one way to enhance firm performance is to increase the number of customer relationships and thus attain scope economies. Similarly, R16 (C3) said that an increase in customer relationships leads to more turnover and ultimately to higher profitability, which is particularly true for service-based products. This implies that incremental costs are less than proportionate to sales – as well as that a larger number of customer relationships would allow the firm to use its productive assets more economically. A factor that limits the growth of these relationships is, however, the capacity of sales representatives, which is around 200-250 relationships. Consequently, in order to increase the number customer relationships, the firm needs to augment the number of employees in its sales organization. A second way to increase performance is to exploit existing relationships more thoroughly. R8 suggested that C3 could make its customer relationships more profitable by extending the product portfolio and loading the relationship with more products. In other words, there is an opportunity to exploit the asset 'customer relationships' more fully through product diversification. Even if they are not currently exploited to the fullest, however, the existing customer relationships of C3 were perceived by respondents as a valuable firm asset that competing firms, particularly those with an indirect sales organization, could not easily replicate.

The role of appropriate relationships with customers as a decisive factor in firm success was also emphasized by the respondents in case C5. R13 (C5) suggested that the type of relationship should reflect the nature of customer and markets – small, more traditional firms tend to value a close and personal relationship, while larger firms place a higher emphasis on professionalism. This respondent also said that there is a difference between mass markets and selective markets – in selective markets, relationships tend to be closer. This implies that firm performance depends on the firm's ability to select an appropriate relationship design (i.e., governance structure) based on customer type and business context. An inappropriate relationship design may thus have negative implications on firm performance.

The respondents in case C10 also indicated that direct relationships with customers are a competitive strength. Direct relationships have in the view of respondents a number of advantages. First, they help to accumulate knowledge about customer needs and preferences – knowledge that the firm can use to develop flexible and customized services. R24 (C10) pointed out that some of C10's close rivals have ignored fundamental customer needs, such as the size of order units, and have consequently forgotten to build the necessary flexibility into their distribution system, putting them at a competitive disadvantage. Second, a direct relationship with customers allows the firm to remain in control of service quality. This suggests that ensuring agreed service levels is an important factor for success. Third, it increases customer loyalty. The same respondent also noted that close collaboration with customers increases the switching costs for customers, making the relationship with the customer relatively sustainable.

However, R24 also suggested that the important aspect about close relationships is that C10 can manage and control them: close relationships do not necessarily imply that all customer-related activities need to be performed in house; many of them can be outsourced without losing the control over the relationship.

The role of direct, close, and enduring relationships in contributing to firm success was also noted by respondents in case C2. R5 (C2) asserted that the firm's relationships are more personal and constant than those of its close rivals. Respondents suggested, furthermore, that direct and close relationships have two important benefits. First, they make interactions more efficient (R5-C2). Second, they give the firm the necessary control over the service quality (R4-C2). This is important, because service quality (e.g., reliability, friendliness) is an important factor in differentiation, as it creates a distinctive market offering. C2's success seems to rely on its ability to deliver services that meet the expectations of customers. Finally, close relationships are also beneficial for customers, an effect that R5 believed to be reinforced by the commitment and positive attitude of C2's employees.

Finally, respondents in case C8 focused on the closeness and trust in the firm's relationships with customers, and cited these as a competitive strength. R18 (C8) noted that in order to deliver value to customers, the firm needs to have a clear understanding of customer needs across different customer segments, as well as of the way that customers use their products, and pointed out that obtaining that information requires a close relationship characterized by trust. Respondents from C8 also indicated that their

relationships with customers are difficult for competitors to imitate. R18 further suggested that there are economic imitation barriers in the form of switching costs, and that when a customer has found a suitable supplier, that customer's threshold for switching becomes relatively high: customers are relatively inert. Thus, a competitor would have to provide a market offering of substantially higher value to convince a customer to change suppliers.

12.3.2 CLOSE RELATIONSHIPS WITH OTHER MARKET PARTICIPANTS

Respondents indicated that relationships with other market participants like suppliers, distributors, and influencers also contribute to firm performance. Respondents from C7, for example, found that lasting relationships not only with customers but also with suppliers are important for firm success. One possible interpretation of this statement is that lasting relationships foster the development of relation-specific assets such as knowledge and routines that increase the performance of the firms involved. To the extent that such relation-specific assets are imperfectly transferrable to other firms, participating firms have an incentive to maintain the relationship so as to exploit these assets jointly. Because of relatively stable relationships with suppliers, C7 seemed to be able to streamline its supply chain processes and to keep variances in these processes under control, contributing to the quality and reliability of their products.

Similarly, respondents from C11 also indicated that the firm has close relationships not only with customers but also with other relevant stakeholders, such as channel partners and influencers, who contribute to firm success. According to R26 (C11), these strong relationships help the firm to penetrate the market. R25 (C11) even thinks that personal and intense relationships are, apart from the firm's brand, the main drivers of firm success.

12.3.3 SUMMARY

In all 11 cases, respondents suggested that relationships with customers and other market participants contribute to firm performance. In two cases, relationships were considered a source of competitive advantage, and in four cases a source of sustained competitive advantage. Respondents suggested that *close*, *enduring trust* relationships with customers contribute to firm performance in different ways. First, they enable the firm to accumulate knowledge about customer needs and preferences, which contributes to the development of distinctive and valuable products and services. Second, they make the interaction between the firm and the customer more efficient (lower uncertainty,

improved routines). Third, they allow the firm to sell products and services with a relatively complex value proposition effectively, and to provide corresponding advisory and application services. Fourth, they give the firm control over service quality, something that seems to be particular important in settings where customers expect conformity to agreed service levels. Finally, they ultimately increase customer loyalty: as one respondent suggested, a close and collaborative relationship with a customer can increase switching costs for that customer, which makes the relationship relatively persistent.

Apart from these effects on firm performance, respondents in one case suggested that customer relationships offer further opportunities to increase performance in the future. One option, for example, is to add new relationships to the firm's current stock of customers to exploit more economically the firm's extant productive assets. A second option is to exploit more fully the firm's extant relationships by diversifying into related product markets and to cover a broader scope of customer needs.

Another aspect that affects firm performance may be called relationship design. Respondents suggested that the nature of the relationship can be different for different types of customers, and that the firm consequently needs to adopt an appropriate relationship design (i.e., form of interaction). For instance, one respondent pointed out that in that particular firm's context, relationships with small, more traditional customers need to be fairly close and personal, while those with larger customers should be fairly professional. A similar distinction can be made between customers in mass markets and customers in selective markets – relationships with customers in selective markets should be rather close. Although close and enduring relationships with customers were considered important for firm performance, this does not imply that the firm must perform all customer-related activities itself. As one respondent suggested, many such activities can be outsourced without losing control over the relationship.

Apart from these distinctive customer relationships, respondents indicated that relationships with other market participants such as suppliers, distributors, and influencers contribute to firm performance. One of the respondents pointed out that long-term relationships with suppliers are a competitive strength. From an economic point of view, long-term relationships add value to the firm, for instance, when they decrease uncertainty or increase inter-organizational efficiency.

Relationships are also difficult for competitors to imitate for two main reasons. First, competitors may find it costly and time-consuming to implement a different relationship design. As indicated in one case, this could mean that a close competitor would have to change from an indirect to direct sales organization – which implies higher costs than implementing a direct sales organization in the first place. Second, competitors may find it difficult to accumulate and develop customer relationships due to customer switching costs. A competitor, respondents in one case suggested, would have to offer significant value gains to motivate customers to switch their supplier.

12.4 LITERATURE

The RBV literature suggests that relationships with customers and other market participants are an intangible firm asset (Hall, 1992; Sanchez et al., 1996a). Concepts similar in meaning include networks (Gulati, 1998; Hall, 1992; Jarillo, 1988; Thorelli, 1986), relational resources (Valentin, 2001), and social capital (Ireland et al., 2002; Nahapiet & Ghoshal, 1998). Such relationships include those with customers, suppliers, channel partners, distributors, agents, contractors, outsourcing partners, allies, and other relevant stakeholders outside the firm (Amit & Schoemaker, 1993; Barringer & Harrison, 2000; Brooking, 1997; Choi & Wang, 2009; Das & Teng, 2000a; Day, 2000; Dyer & Singh, 1998; Ireland et al., 2002; Kale et al., 2002; Sanchez & Heene, 2004; Valentin, 2001). From a systemic perspective, relationships may be considered links between entities for the exchange of information and coordination of economic activity; together with identity and information, they constitute the necessary features of a firm to organize itself and to adapt to its environment (Grant, 2008). Conceptualizing the firm as an open system, the competence based management perspective considers relationships with market partners as an essential element to access, develop and deploy the resources to generate economic value and compensate resource providers for their contribution (Sanchez et al., 1996a; Sanchez & Heene, 1996). In the case that resource partners help the firm to develop particular assets and capabilities to generate economic value by addressing specific market needs, these partners become stakeholders and thus are entitled to claim a share of the value that these assets and capabilities generate (Sanchez & Heene, 2004; Shamsie, 2005). From a more economic perspective, market relationships may be considered exchange arrangements, something between pure open markets and organizational hierarchies (Thorelli, 1986). This encompasses a wide spectrum from arms-length, pure transactional exchanges to collaborative, deeply integrated, long-term exchanges (Anderson & Narus, 1991).

12.4.1 CUSTOMER RELATIONSHIP LITERATURE

Several bodies of literature explore the links between market relationships and firm performance, including customer relationships, strategic alliances, and trust. The literature on customer relationships and firm performance suggests that close connections with customers can afford a firm with a competitive advantage (e.g., Day, 2003; Grant, 2008; Jaworski & Kohli, 1993; Narver & Slater, 1990; Peters & Waterman, 1982).

It has been argued that developing close ties with customers is necessary for developing and delivering highly differentiated offerings to specific customer groups in product markets (Sanchez & Heene, 2004). However, maintaining close connections with customers can also be problematic. A firm may set its focus on technologies that provide direct benefits for existing customers, and thereby risk underinvesting in revolutionary, strategically important technologies (Christensen & Bower, 1996). The potential advantages of close customer relationships can also lure managers into implementing strategies that cover a maximum of customer needs and inputs by applying less stringent criteria than what the maintenance of organizational focus and efficiency would mandate (Day, 1999).

According to Day (2003), advantages like the ability to deliver highly differentiated offerings come from the firm's superior "customer-relating capability" which is a function of a firm's "orientation" (i.e., cultural focus on long-term relationships and customer satisfaction); its "configuration" (i.e., adequate structure, processes, metrics and reward systems to effectively develop durable relationships and customer-oriented market offerings); and its "customer information" (e.g., customer needs, expectations, transactions, etc.). Based on empirical evidence, Day (2003) suggests that the firm's attention to these three interrelated elements positively correlates with firm performance. A superior customer-relating capability can contribute to firm performance in a number of ways, including a differentiation of products and services, lower customer acquisition costs, a decrease in customer-related risks, a focus on the most valuable customers, and a lower turnover rate among customer representatives (Day, 2003). Anderson and Narus (1991) suggest furthermore that through collaborative and tightly integrated relationships with customers, a firm can use its asset base more economically, and gain ideas and information to develop, improve, and differentiate products and services. In a similar vein, Von Hippel (1986, 1988) emphasizes that close ties with customers are a fertile source of innovation. Finally, Grant (2008) suggests that

well-established customer relationships can give a firm more latitude in adapting to sudden shifts in technology.

Although tight or collaborative relationships provide benefits in some cases, this does not imply that such relationships are appropriate for all customers and in all situations: a simple transactional relationship may be preferred when the customer's primary interest is to quickly and efficiently obtain a product or service and when a more engaged form of interaction would add little or no value to the exchange (Anderson & Narus, 1991; Day, 1994). In other words, the benefits of staying close to customers must be balanced against the costs (Wilson, 1995).

The extent to which such customer relationships are rare or difficult to imitate is not specifically addressed in the RBV literature. The marketing literature seems to suggest, however, that such customer relationships can be duplicated when a competitor develops the appropriate customer-relating capability. In the view of Day (2003), competitors can develop such a capability by increasing their efforts to cultivate and align the three capability elements discussed above. One factor that could hinder competitors from establishing such a capability is the management team's lack of skills and commitment to initiating and implementing the necessary changes (Day, 2003; Jaworski & Kohli, 1993). A particular challenge seems therefore to be adapting the firm culture so that it fosters both customer retention and effective intraorganizational working relationships between people and teams involved in the creation and delivery of customer value (Day, 1994, 2003). In Day's (2003) view, cultural attributes such as shared values, beliefs and norms that reflect the firm's orientation towards markets and customers are extremely hard to change directly; they may, however, through a process in which employees learn what kinds of behavioural modifications lead to higher productivity and effectiveness.

12.4.2 ALLIANCE LITERATURE

A second body of literature concerns a special type of relationships: strategic alliances. The subject of strategic alliances is relatively prominently represented in both the strategic management literature and the RBV literature. An important source of competitive advantage (Ireland et al., 2002), a strategic alliance can be defined as a deliberate, cooperative, long-standing relationship that a firm maintains with one or more market participants to gain, increase, or sustain an advantage over rival firms by

sharing, exchanging, or co-developing resources (Das & Teng, 2000a; Gulati, 1995; Hitt et al., 2000; Ireland et al., 2002; Jarillo, 1988).

An effective alliance may increase the earning potential of a firm's resources and thus add value to the firm (Eisenhardt & Schoonhoven, 1996; Ireland et al., 2002; Parkhe, 1993). Value may be understood as the portion that the firm can claim of the surplus that an alliance generates relative to alternative exchange arrangements (see Madhok & Tallman, 1998; Spekman, Forbes, Isabella, & MacAvoy, 1998). More specifically, alliances have been associated with a whole slew of benefits, such as scale economies, sharing fixed costs and risks, innovation, quick access to technological and geographical markets, overcoming resource constraints, transaction economies, building capabilities and assets through learning, enhanced legitimacy and reputation, improved ability to deal with uncertain environments, reduced dependence on externalities, and enhanced competitiveness in dynamic business contexts (Ahuja, 2000; Alvarez & Barney, 2001; Beamish, 1987; Das & Teng, 1996, 2000b; Eisenhardt & Schoonhoven, 1996; García-Canal, Duarte, Criado, & Llaneza, 2002; Hagedoorn, 1993; Hill & Hellriegel, 1994; von Hippel, 1988; Kogut, 1991, 1988; Ohmae, 1989; Rothaermel & Boeker, 2008; Spekman et al., 1998; Young-Ybarra & Wiersema, 1999).

Moreover, scholars suggest positive performance effects when partners invest in relationship-specific resources (Dyer & Singh, 1998; Dyer, 1997). The CBM literature emphasizes that pooling and sharing resources through cooperative relationships provides the firm with more latitude to quickly address emerging market opportunities and helps the firm to realize asset accumulation economies by, for instance, exploiting mass efficiencies (Sanchez & Heene, 1997b). On the other hand, the broader alliance literature suggests that cooperative relationships are associated with various costs, such as reduced autonomy and control, and the risk of "being locked-in" (Porter, 1985, p. 319), added coordination and other governance costs (Hennart, 1991; Williamson, 1991), the outflow of tacit knowledge and other difficult to protect assets (Hamel, 1991; Kogut, 1988), and the risk of interorganizational conflicts (Das & Teng, 1998; Hardy & Phillips, 1998).

Eisenhardt and Schoonhoven (1996, p. 137) understand alliances as "cooperative relationships driven by a logic of strategic resource needs and social resource opportunities." Das and Teng (2000a) suggest that combining the firm's own resources with those of other firms can increase the rent-earning capacity of those resources,

which is a strong incentive for a firm to enter an alliance. Thus, an alliance may be considered a gateway to obtaining valuable resources that reside in another firm (Das & Teng, 2000a) and for which only incomplete or imperfect markets exist (Barney, 1986b; Dierickx & Cool, 1989). Das and Teng (2000a) furthermore suggest that of all the valuable resources that firms could bring to an alliance, the ones that are imperfectly tradable and hard to imitate have the highest capacity for competitive advantage. Scholars contend, however, that establishing and maintaining such cooperative relationships requires relational capabilities, which by themselves may constitute a source of competitive advantage (Dyer, Kale, & Singh, 2001; Hansen, Hoskisson, & Barney, 2008; Ireland et al., 2002; Kale & Singh, 2009; Lavie, 2006; Powell et al., 1996; Schreiner, Kale, & Corsten, 2009).

Although alliances can be beneficial to the firm, this does not imply that all of them are successful: studies indicate that roughly 50% of alliances do not lead to the desired outcome (Dyer et al., 2001; Park & Ungson, 1997; Porter, 1987). There is, however, a growing body of research that seems to suggest a positive relationship between alliances and firm performance (Hagedoorn & Schakenraad, 1994; Mesquita, Anand, & Brush, 2008; Mitchell & Singh, 1996; Powell et al., 1996; Shan, Walker, & Kogut, 1994; Stuart, 2000). Studying the impact of technology on alliances on firm performance, Stuart (2000), for example, concludes that advantages are linked to the partners' resource characteristics: relationships with innovative, prominent partners with advanced technological assets are positively associated with firm performance. Furthermore, Stuart found evidence that an alliance with a prominent partner can significantly enhance the focal firm's legitimacy and reputation, both of which contribute to firm performance. A further example is a study of vertical relationships in the auto industry that suggests that performance is related to relationship-specific characteristics, such as mutual commitment and extensive information sharing, that further cooperation and investments in transaction-specific capabilities and assets (Helper, 1991).

The performance of an alliance – and by extension that of individual firms – may be contingent on a number of factors (e.g., Das & Teng, 2000a; Hill & Hellriegel, 1994; Kale & Singh, 2009; Shah & Swaminathan, 2008; Thomas & Trevino, 1993). From a resource-based perspective, factors that probably influence firm performance include partner complementarity, partner commitment, partner compatibility, and alliance governance structure.

Partner complementarity refers to the extent to which a partner brings non-redundant and valuable resources or capabilities to the relationship (Dyer & Singh, 1998; Harrigan, 1988; Mowery, Oxley, & Silverman, 1996). Shah & Swaminathan (2008) suggest that some level of complementarity is a necessary condition for the creation of economic value in any form of cooperative relationship. Das and Teng (2000) extend the view on partner complementarity by suggesting that all resources that a partner brings to an alliance – that is, not only complementary ones – can have an effect on performance: there are also "supplementary resources", "surplus resources" and "wasteful resources". *Supplementary resources* refer to similar resources, which could, for instance, be productively used in an alliance to achieve economies of scale and scope (Das & Teng, 2000a) or to share risks (Hill & Hellriegel, 1994). *Surplus resources* refer to similar but unproductive resources that a partner brings to an alliance (Das & Teng, 2000a). In other words, these resources are redundant, or constitute "slack", which can be defined in the context of alliances as something "in excess of the minimum necessary to produce a given level of organizational output" (Nohria & Gulati, 1996, p. 1246). Although slack generally does not create value in an alliance, it can in some situations help to cope with uncertainties and to mitigate some forms of risks (Singh, 1986). Finally, *wasteful resources* refer to dissimilar but unproductive resources, which include those that are difficult, costly or otherwise not very meaningful to integrate (Das & Teng, 2000a, p. 50). For example, it may be difficult, and not very meaningful, to integrate an alliance partner's culture. Such resources will likely remain redundant in an alliance, and from the focal firm's point of view, they form a wasteful resource.

Partner commitment, the second factor, refers to the credible promise of a partner to devote adequate resources to meeting alliance goals in expectation of longer-term returns (Gundlach, Achrol, & Mentzer, 1995; Hutt, Stafford, Walker, & Reingen, 2000; Shah & Swaminathan, 2008). From a transaction cost perspective, such pledges of partners can lower the costs of an exchange (Williamson, 1981) and thus contribute to performance. Kale and Singh (2009) consider partner commitment an important factor for success in alliances, particularly in situations in which partners can only imperfectly define in advance the path of realizing desired alliance outcomes.

Partner compatibility, the third factor, refers to the relative match between the firm and an alliance partner in terms of goals, culture, policies, procedures, and systems (Beamish, 1987; Hutt et al., 2000; Kale, Singh, & Perlmutter, 2000). According to Kale and Singh (2009), some level of partner compatibility is important for alliance success. Whetten

(1981), for instance, suggests that coordination costs fall with decreasing partner diversity. Das and Teng (2000a) suggest, furthermore, that partner compatibility minimizes conflicts among alliance partners, which in turn positively affects alliance performance.

Alliance governance structure, the fourth factor, refers broadly conceived to the mechanisms used to realize and distribute value and minimize risk in an alliance (Barringer & Harrison, 2000; Hennart, 1988; Kale & Singh, 2009; Williamson, 1985). The literature emphasizes three main governance mechanism: equity stakes (Williamson, 1985; David & Han, 2004); contracts (Mayer & Argyres, 2004; Poppo & Zenger, 2002; Reuer & Ariño, 2007); and relational governance (Granovetter, 1985; Gulati, 1995; Uzzi, 1997; Zaheer & Venkatraman, 1995). Equity stakes provide two distinctive advantages. First, if equity is shared, these equity stakes represent a "mutual hostage" that help align partner interests (Hennart, 1988). These stakes express each partner's commitment, and can effectively discourage partners from pursuing their private interests at the expense of others (Das & Teng, 2000a). A second advantage is the possibility of implementing a hierarchical framework for coordinating resources and operations for value creation, for value distribution, and for resolving potential conflicts (Gulati & Singh, 1998; Kogut, 1988). Contracts, on the other hand, primarily help to reduce the risk and uncertainty in an alliance by delineating exchange conditions and each partner's responsibilities and privileges (Kale & Singh, 2009). Finally, relational governance refers to "informal agreements and unwritten codes of conduct" that influence the behaviour of cooperation partners (Baker, Gibbons, & Murphy, 2002, p. 39). Relational governance can increase alliance performance by reducing transaction costs such as those for contracting, monitoring and adaptation (Kale & Singh, 2009). Furthermore, it facilitates the exploitation of collective opportunities that critically depend on the exchange or sharing of proprietary or difficult-to-specify resources (such as tacit knowledge) and on the flexibility of partners in coping with difficult-to-anticipate events or alliance situations (Zajac & Olsen, 1993).

Scholars suggest that a single mechanism alone is unlikely to secure alliance success; a combination of these mechanisms is required to make governance effective (Kale & Singh, 2009). However, scholars seem to have different views on how formal governance mechanisms (equity stakes or contracts) and informal governance mechanism (relational governance) relate to each other: some see them as substitutes (Bradach & Eccles, 1989; Gulati, 1995) and others as complements (Poppo & Zenger, 2002).

All this suggests that distinctive relationships with customers and other market participants can influence firm performance in important ways. Advantages based on distinctive relationships may be sustained over an extended period of time, due to the characteristics of that resource. The resource is highly immobile, cannot be obtained in efficient factor markets, and consequently, needs to be developed by a competitor over time (Arrow, 1974; Dierickx & Cool, 1989). Furthermore, the resource is by definition socially complex, an hence effectively protected from imitation (see Barney, 1991, 2001a; Mahoney & Pandian, 1992).

12.4.3 TRUST LITERATURE

A third body of literature concentrates on trust in relationships. Barney and Hansen (1994) suggest that trust is an attribute of any relationship that a firm has with customers and other market participants. For Thorelli (1986, p. 38), trust represents a "future-oriented" aspect of the relationship, and can be defined as "an assumption or reliance on the part of A that if either A or B encounters a problem in the fulfilment of his implicit or explicit transactional obligations, B may be counted on to do what A would do if B's resources were at A's disposal." In a similar vein, Sabel (1993, p. 1133) defines trust as "the mutual confidence that no party to an exchange will exploit another's vulnerabilities."

Barney and Hansen (1994) suggest that these "vulnerabilities" can be categorized in three types of potential risks: "adverse selection", "moral hazard", and "holdup". A firm is exposed to adverse selection risks if there is ex ante uncertainty about the effective value of partner inputs to an exchange (Akerlof, 1970). A firm is exposed to moral hazard risks if there is ex post uncertainty about the effective value of partner inputs to an exchange (Holmstrom, 1979). Finally, a firm is exposed to hold-up risks if partners' inputs to an ongoing exchange fall short of ex ante expectations (Holmstrom & Roberts, 1998; Klein et al., 1978; Klein, 1996).

Despite these vulnerabilities, trust has been associated with a number of benefits for the firm. First, it can reduce transaction costs in exchanges (Barney & Hansen, 1994; Jarillo, 1988). Second, it builds a foundation for effective interpersonal and interorganizational cooperation (McAllister, 1995; Volery & Mensik, 1998). Third, it gives partners more latitude in taking risks (Ireland et al., 2002). Fourth, it provides a basis for an honest and direct information exchange (Hutt et al., 2000). Fifth, it helps increase strategic flexibility

in the context of strategic alliances (Young-Ybarra & Wiersema, 1999). Finally, it increases, for partners, the perceived quality of relationships (Ireland et al., 2002).

Generally, economic researchers suggests that trust can only arise when contracts and other forms of governance provide a sufficiently strong economic incentive for non-opportunistic behaviour in an exchange (Barney & Hansen, 1994; Williamson, 1975). Whether trust in an exchange contributes to the process of value creation depends primarily on the risk of opportunistic behaviour of participants, which can range from low to high (see Barney & Hansen, 1994).

Low-risk exchange settings offer no significant opportunities for exchange partners to misappropriate value in an exchange, and consequently, trust is established without the need to implement governance mechanism to curb anti-social, selfish behaviour (Barney & Hansen, 1994). If all firms within an industry operate in similar exchange settings, trust can be assumed to be a common resource among competing firms and hence not a potential source of competitive advantage (Barney & Hansen, 1994).

High-risk exchange settings, by contrast, offer substantial opportunities for exchange partners to pursue their own interests at the expense of others. In such settings, participants may establish appropriate social and economic governance mechanism, such as contracts, to mitigate such risks (Barney & Hansen, 1994). Since the costs of anti-social and selfish behaviour would be higher than the benefits, participants can assume that they will not be harmed by value misappropriation by others, and consequently can trust each other (Barney & Hansen, 1994). Similar to the argumentation above, if all firms of a set of competing firms are exposed to similar exchange conditions and establish similar governance mechanisms, the resulting trust among exchange participants cannot confer competitive advantage (Barney & Hansen, 1994).

A special case of *high-risk exchange* settings occurs when participating firms are intrinsically trustworthy due to deeply ingrained cultural beliefs and attitudes that prohibit idiosyncratic goal maximizing behaviour at the expense of others (Barney & Hansen, 1994). In such cases, participants may be confident that they cannot become victims of value misappropriation, independent of social and economic governance mechanisms (Barney & Hansen, 1994). As argued before, if all firms among a set of competing firms operate in similar environments, and all of them are intrinsically trustworthy, the resulting trust among partners cannot confer a competitive advantage (Barney & Hansen, 1994).

In all these settings, two complementary capabilities seem to be important: the ability to determine accurately the risk level of exchange settings and the ability to develop and implement appropriate governance mechanisms. Barney and Hansen (1994) suggest that these capabilities may not be equally distributed among competing firms, and hence constitute a potential source of competitive advantage.

Following this line of argumentation, the true source of competitive advantage in exchange relationships is not trust *per se* but rather the firm's capability to accurately assess the risk associated with exchange settings, its capability to create and implement governance mechanisms (in high-risk exchange settings), and its culturally grounded trustworthiness (in high-risk exchange settings). All of these may be considered sources of sustained competitive advantage when they are only available to a subset of competing firms (Peteraf, 1993), and when they are difficult or costly to replicate (Barney, 1991).

12.5 INTEGRATIVE DISCUSSION OF FINDINGS AND LITERATURE

The present study suggests that a firm's relationships with customers and other market participants have an important impact on the ability of the firm to obtain a sustained competitive advantage. Respondents from all 11 firms (cases) suggested that these relationships contribute to firm performance. In two cases, relationships were considered a source of competitive advantage, and in four cases even a source of sustained competitive advantage.

This finding is consistent with the literature on customer relationships and firm performance, which suggests that close connections with customers can provide a firm with a competitive advantage (e.g., Day, 2003; Grant, 2008; Jaworski & Kohli, 1993; Narver & Slater, 1990; Peters & Waterman, 1982). It is also consistent with the strategic alliance literature, which suggests that cooperative interorganizational relationships can be a source of competitive advantage (Ireland et al., 2002). In the literature, relationships with customers and other market partners – including those with suppliers, channel partners, distributors, agents, contractors, outsourcing partners, allies, and other relevant stakeholders (Brooking, 1997; Das & Teng, 2000a; Day, 2000; Dyer & Singh, 1998; Ireland et al., 2002; Sanchez & Heene, 1997a; Valentin, 2001; Amit & Schoemaker, 1993; Kale et al., 2002; Choi & Wang, 2009) – have been classified as intangible firm assets (Grant, 2008; Hall, 1992; Sanchez & Heene, 1997a). From an economic perspective, these relationships represent exchange arrangements, which can range

from arms-length, pure transactional exchanges to collaborative, deeply integrated, long-term exchanges (Anderson & Narus, 1991; Thorelli, 1986).

12.5.1 EVALUATING VRIN: VALUE OF CUSTOMER RELATIONSHIPS

The study suggests that close, enduring customer relationships characterized by trust are a valuable resource. Such relationships can help to accumulate knowledge about customer needs and preferences and to effectively sell complex products and services. They also lower uncertainty, making interaction between the firm and the customer more efficient, and they allow the firm to remain in control of service quality. Finally, they increase customer loyalty, decreasing marketing costs and sometimes even increasing switching costs for customers so the relationship becomes relatively sustainable. Apart from these direct effects on firm performance, extant customer relationships may constitute an opportunity to grow by diversification. A firm could, for example, extend its product line to address more of the needs of its current customer base, and thus more fully exploit extant relationships (i.e., increase the share of wallet).

The literature on customer relationships and firm performance suggests similar positive effects. Tightly integrated relationships help a firm to use its asset base more economically (Anderson & Narus, 1991), gain ideas and support to innovate products and services (von Hippel, 1986, 1988), and cope with the consequences of sudden technological shifts in a firm's industry (Grant, 2008).

12.5.2 EVALUATING VRIN: VALUE OF RELATIONSHIPS WITH OTHER MARKET PARTICIPANTS

Apart from customer relationships, respondents indicated that distinctive relationships with other market participants like suppliers, distributors, and influencers contribute to firm performance. In one case, it was emphasized that long-term relationships with suppliers are a competitive strength. From an economic point of view, long-term relationships add value to the firm when, for instance, they decrease uncertainty or increase interorganizational efficiency. The alliance literature suggests that deliberate, cooperative and long-standing relationships with other firms help to acquire, increase or sustain a competitive advantage over rival firms by sharing, exchanging, or co-developing resources (Das & Teng, 2000a; Gulati, 1995; Hitt et al., 2000; Ireland et al., 2002; Jarillo, 1988). An effective alliance can increase the earning potential of a firm's resources and thus add value to the firm (Eisenhardt & Schoonhoven, 1996; Ireland et al., 2002; Parkhe, 1993).

One advantage of an alliance is that it can function as a gateway to obtaining valuable resources that reside in another firm (Das & Teng, 2000a) and for which only incomplete or imperfect factor markets exist (Barney, 1986b; Dierickx & Cool, 1989). Of all the resources that come together in a cooperative relationship, the ones that are imperfectly tradable, hard to imitate, and indispensable to attaining mutual goals promise the highest potential for above-normal returns (Das & Teng, 2000a).

As discussed in greater detail in the literature review section, alliances can provide a host of benefits ranging from scale economies to enhanced competitiveness in dynamic business contexts. On the other hand, alliances are also associated with various costs from reduced autonomy and control to the outflow of tacit knowledge. On balance, however, alliances seem to be considered beneficial for firm performance, a conclusion also supported by empirical studies (for references on benefits, costs, and empirical studies, see the literature review section). This assessment was shared by the respondents to the present study, who pointed out such benefits as better ability to penetrate markets.

12.5.3 Evaluating VRIN: Dimensions of relationships affecting firm performance

The present study suggests that the following three dimensions of relationships affect firm performance: (1) closeness, (2) duration, and (3) trust. This list can be complemented with four additional dimensions emerging from the literature: (4) resource complementarity, (5) resource commitment, (6) compatibility, and (7) governance structure. These relationship dimensions are discussed in more detail below.

Closeness may be understood as the level of integration, the degree of collaboration, the geographical distance, or the level of interdependence between the firm and a customer or a market partner. Closeness can be necessary for obtaining valuable resources, such as information about customer needs and preferences. Further, it can be necessary for effective collaboration and for the delivery of distinctive products and services. In other words, close relationships can be instrumental in accessing, developing, and using resources as well as in delivering products and services. As mentioned above, the literature also suggests that close relationships with customers can confer a competitive advantage on a firm (e.g., Day, 2003; Grant, 2008; Jaworski & Kohli, 1993; Narver & Slater, 1990; Peters & Waterman, 1982).

The present study indicates that few of the competitors of the firms investigated in the present study possess sufficiently close relationships to duplicate the relationship-based strategy of the investigated firms. This affords the latter a competitive advantage. A pertinent question, then, is what hinders the competitors from developing equally close relationships with their customers as those that many of the investigated firms enjoy with theirs? Possible explanations include that competitors are less adept in identifying such relationship-based opportunities or that their ability to develop close relationships is less pronounced. These two capabilities may in themselves constitute possible sources of competitive advantage when they are difficult to imitate.

Duration refers to the relative duration of a relationship. The present study suggests that some effects of close relationships, such as increased trust, efficiency of routines, and learning, only emerge with time. In other words, enduring relationships can help to develop time-dependent resources (see Dierickx & Cool, 1989). This is also recognized in the economic literature. Porter (1980), for example, suggests that economies of information, economies of coordination, and economies of learning have a time dimension, and as long as marginal costs are below marginal benefits, time has a positive effect on firm performance. In addition, longer-term relationships can also provide an opportunity for a firm to differentiate product and services in intangible, more experiential dimensions, such as the handling of unforeseen problems (e.g., fairness, responsiveness) (Srivastava, Fahey, & Christensen, 2001).

Trust in relationships has been a recurring theme in the study. Generally, respondents suggested that trust in relationships with customers and other market participants is an important differentiator and contributor to firm performance. Trust is considered an attribute of any relationship that a firm has with customers and other market participants (Barney & Hansen, 1994). As discussed in greater detail in the literature review section, trust is a source of both vulnerabilities and important benefits; the former can be mitigated through contracts and other governance devices, which some scholars even represent as an indispensable condition for trust to arise at all (for references, see the literature review section).

An important point regarding trust that emerges from the literature is that the extent to which trust can contribute to firm performance depends heavily on the risk involved in the exchange setting, that is, in the opportunities the setting offers for the participants to pursue their own interests at the expense of their partners (see Barney & Hansen, 1994).

Regardless of the setting, however, performance largely depends on the firm's ability to determine accurately the risk level of exchange settings and its ability to develop and implement appropriate governance mechanisms. Barney and Hansen (1994) contend that if these capabilities are unequally distributed among competitors, firms with such capabilities may enjoy a competitive advantage, which in turn suggests that the true source of competitive advantage in exchange relationships is not trust *per se* but rather the firm's ability to assess risks and implement governance mechanisms, as well as its culturally grounded trustworthiness. All of them may be considered sources of sustained competitive advantage when they are only available to a subset of competing firms (Peteraf, 1993), and when they are difficult or costly to replicate (Barney, 1991).

Although trust is not a source of competitive advantage in itself, this does not imply that it is unimportant in the realization of competitive advantage. If trust is lacking in a cooperative relationship, it is unlikely that a firm can exchange or share valuable resources and capabilities.

Complementarity refers to the relative fit of resources between partners. To create economic value in a relationship, partner resources and capabilities must be valuable – that is, they need to be either complementary (Dyer & Singh, 1998; Harrigan, 1988; Mowery et al., 1996) or supplementary (Das & Teng, 2000a). Furthermore, since cooperative relationships may also involve partner resources that are redundant or of no particular use, such as surplus and wasteful resources (see Das & Teng, 2000a), these resources need to be avoided: valuable resources must outweigh non-valuable resources in a relationship. This is not only applicable to relationships with suppliers and alliance partners, but also to those with customers. For example, customers might not only consume resources in the form of products and services, but also contribute resources such as cash, information, and ideas. Furthermore, customers may also contribute their perceptions; together with the perceptions of other stakeholders, these constitute a firm's reputational assets (for a discussion of reputational assets, see Chapters 7 and 9).

Commitment refers to the reliable assurances offered by partners to provide the necessary resources for achieving the common goals of the corporative relationship (Gundlach et al., 1995; Hutt et al., 2000; Shah & Swaminathan, 2008). Such assurances can lower the costs of an exchange (Williamson, 1981) and thus contribute to performance. Kale and Singh (2009) consider partner commitment an important factor of success in alliances, particularly in situations in which partners can only imperfectly

define in advance the path of realizing desired alliance outcomes. Commitment may be considered important in any type of collaborative relationship, including those with customers.

Compatibility refers to the relative match between a firm and a cooperation partner in terms of goals, culture, policies, procedures, and systems (Beamish, 1987; Hutt et al., 2000; Kale et al., 2000). Scholars have found that some level of partner compatibility is necessary for successful cooperation, that less partner diversity means fewer coordination costs, and that compatibility minimizes conflicts and improves the partners' joint performance (for references, see the literature review in Section 12.4). Compatibility may be considered important in any type of collaborative relationship, including those with customers.

Governance structure refers to a set of mechanisms that help to realize and distribute value and minimize risk in a cooperative relationship. Three basic structures are outlined in the literature: equity stakes, contracts, and relational governance. The benefits of efficient governance structures include, for example, that they help to align partner benefits, reduce opportunistic behaviour and conflicts, reduce transaction costs, and make it easier to exploit opportunities that require joint action or sharing of tacit information (for more details and the relevant literature references, see the literature review section). There is some controversy among researchers as to how formal governance mechanisms (equity stakes or contracts) and informal governance mechanism (relational governance) relate to each other – some see these mechanisms as substitutes (Bradach & Eccles, 1989, Gulati, 1995) and others as complements (Poppo & Zenger, 2002). It is, however, reasonable to assume that these mechanisms work most effectively when they are combined in some way (Kale & Singh, 2009) and matched with the exchange context.

12.5.4 Evaluating VRIN: Rareness

Respondents suggested that enduring and close relationships based on trust with customers and other market participants are not common among competing firms. In order to evaluate the extent of rareness, one might consider resource immobility and resource supply inelasticity.

First, relationships with the above-mentioned qualities appear to be relatively immobile. They generally cannot be obtained or traded through open markets, especially when they are firm-specific. Exceptions may exist, for example, in the banking sector, in which

valuable customer relationships may be obtained through recruiting relationship managers of rival banks.

Second, distinctive relationships appear to be also inelastic in supply since they need be developed by the firm over time (Arrow, 1974; Dierickx & Cool, 1989). Thus, enduring and close relationships characterized by trust are rather rare among competing firms, as well as relatively immobile and inelastic in supply.

12.5.5 EVALUATING VRIN: INIMITABILITY

To what extent are such distinctive and favourable relationships also imperfectly imitable by competing firms? Respondents clearly indicated that relationships, particularly those with customers, are difficult to imitate.

A first reason is *causal ambiguity*. Before competitors can set out to duplicate a firm's valuable relationships, they need to develop a clear understanding of what these relationships are and how they contribute to firm performance. While it may be possible for competitors to identify, through competitor analysis, the more visible relationships (e.g., those with key customers, suppliers, channel partners, or alliance partners), it can be difficult and costly to identify all relationships that contribute to the focal firm's performance. Furthermore, it may be even more difficult to understand how these market relationships are employed to create economic performance.

A second reason is *social complexity*. Even if there is little ambiguity regarding the connection between the focal firm's relationships and its performance, a competitor would have to understand multiple facets of these relationships in order to be able to duplicate them. This includes, for example, an understanding of what resources in those relationships are shared, exchanged, developed, or deployed, and also what personal relationships the firm's managers and employees maintain with their customers, suppliers, and other market partners. Since these relationships represent social phenomena that are difficult to observe and analyse, they are not subject to easy duplication.

A third reason is *path dependency*. As discussed above, relationships cannot be bought in factor markets; they need to be developed by the firm over time. Some of these relationships, as the present study indicates, have been developed over a long period. Competitors may have difficulty in implementing similar development paths, particularly if they reflect the idiosyncratic histories of the parties involved.

Furthermore, the development of these relationships may depend on firm-specific resources (such as a particular firm culture or direct sales organization), which could hinder competitors from successfully developing relationships with the same partners.

A fourth reason is *switching costs*. Competitors may find it difficult or costly to duplicate the focal firm's valuable relationships due to switching costs (see Lieberman & Montgomery, 1988). As respondents in one case suggested, a competitor would have to offer a significantly better value proposition to motivate customers to switch from one supplier to another. Presumably, the same applies to suppliers and other market participants. Thus, to duplicate valuable relationships, a competitor would need to provide more economic value than the focal firm, at least to an amount covering the partner's switching costs.

12.5.6 EVALUATING VRIN: NON-SUBSTITUTABILITY

To evaluate the substitutability of valuable and rare market relationships, one might consider two approaches to substitution. The first approach is substituting these relationships with other market relationships of comparable strategic value and cost. In this approach, a competitor would try to develop relationships with market partners different from those of the focal firm. This substitution strategy can be difficult and costly, since it, too, is subject to the imitation barriers (causal ambiguity, social complexity, and path dependency) noted above.

A second approach is substituting valuable market relationships with another resource, or a combination of resources, that provide similar strategic value and cost. Neither the present study nor the reviewed literature point to any functionally similar resources or resource combinations that competitors might use. Vertical or horizontal integration, however, might be considered a partial substitute for valuable and rare market relationships. For instance, a competitor might acquire or merge with key suppliers and thereby eliminate the need to develop (firm external) relationships with them. This substitution route appears to be costly, time-consuming, and still imperfect, since a competitor (like any other firm) will always be required to maintain a least some relationships with market participants. Hence, distinctive and favourable relationships with other market participants represent an imperfectly substitutable resource.

12.6 PROPOSITIONS

I suggest therefore the following:

Proposition 6 – Close relationships can be a source of temporary competitive advantage when they provide an effective way to obtain, exchange, or share valuable resources, or to differentiate products and services.

Proposition 7 – Enduring relationships contribute to economic value when they decrease uncertainty or increase (interorganizational) efficiency.

Proposition 8 – Relationships characterized by trust form a necessary but not sufficient condition for competitive advantage when exchange vulnerabilities exist.

Proposition 9 – In cooperative relationships, partner resources create economic value when they are complementary or supplementary, and offset the effects of surplus and wasteful resources.

Proposition 10 – In cooperative relationships, partner commitment contributes to firm performance when the best way of realizing desired relationship goals is uncertain.

Proposition 11 – In cooperative relationships, partner compatibility contributes to firm performance; some level of partner compatibility is a necessary condition of relationship performance.

Proposition 12 – In cooperative relationships, an appropriate and effective governance structure is a necessary condition for firm performance.

These propositions may be summarized as follows:

Proposition 13 – Close and enduring relationships characterized by trust are a source of competitive advantage (a) when they provide access to complementary or supplementary resources that also offset the effects of surplus and wasteful resources, (b) when they increase (interorganizational) efficiency, decrease uncertainty, or help to differentiate products or services, and (c) when exchange vulnerabilities exist.

12.7 CHAPTER CONCLUSION

This chapter concentrated on *relationships* as a source of competitive advantage. It presented the study findings, reviewed then relevant literature, and synthesized the two, assessing the resource's potential to provide a sustained competitive advantage based on VRIN criteria. Finally, the chapter developed conclusions in the form of testable

propositions. The study provides strong evidence that *relationships* represent a source of sustained competitive advantage.

In the following chapter, *innovation capability* will be presented as the next major finding that elucidates why performance differs among competing firms.

13 FINDINGS AND DISCUSSION: INNOVATION CAPABILITY AND SUSTAINED COMPETITIVE ADVANTAGE

13.1 CHAPTER INTRODUCTION

This chapter reports the finding that *innovation capability* is a major source of competitive advantage. Innovation capability is a concept that covers a variety of practices from basic R&D to administrative innovation, and thus scholarly assessments of it have differed somewhat – as has scholarly attention: the RBV literature, for instance, has paid little attention to some aspects of innovation, such as organizational innovation, as a source of competitive advantage. The respondents in this study, however, in the main argued for the significance of innovation capability as a source of competitive advantage, and the following pages will explore the various meanings of innovation and their relationship to firm performance.

The chapter is organized as follows. After briefly defining innovation capability, it moves to a detailed discussion of the findings of the study. Next, it considers the literature on the topic in both RBV and other scholarly fields, and then integrates the study findings with the relevant literature, paying particular attention to using RBV logic (VRIN) to evaluate the potential of the identified resource to provide a sustained competitive advantage. Finally, the chapter develops conclusions in the form of testable propositions.

13.2 DEFINITION

The definition that has inductively emerged from this study's empirical research and its examination of the relevant literature is as follows: *innovation capability* is the firm's process for devising and implementing distinctive and value-creating concepts – such as a new/enhanced product, service, process, or system – by refining and reconfiguring the firm's resource base. This definition draws on McFadzean's (2005) definition of innovation and Eisenhardt and Martin's (2000) definition of dynamic capabilities.

13.3 FINDINGS

Respondents from a majority of firms (cases) suggested that innovation capability is a competitive strength and an important contributor to firm performance. As one might expect, respondents in general suggested that innovations are a necessary condition for

firm success. As this chapter will show, however, analysing the respondents' answers and the relevant literature reveals that the contribution to firm performance is made not by some abstract concept of "innovation", but by particular characteristics of the innovation capability; this finding significantly contributes to our understanding of the relationship between innovation and firm performance.

There are essentially four types of innovation: technology, process, product, and service. Technological innovations emerge from basic and applied research activities. In larger organizations, these activities are often coordinated under the label of technology management. Process innovation, in contrast, seems to be driven by functional areas, which focus on intra- and inter-organizational efficiency. Product innovation, the next category, comes either from new technologies or from the use of existing ones in novel ways. The final category, service innovations, comprise activities around the distribution and usage of products. Figure 23 provides an overview of the concepts related to innovation capability. In the following, I will discuss these concepts in more detail.

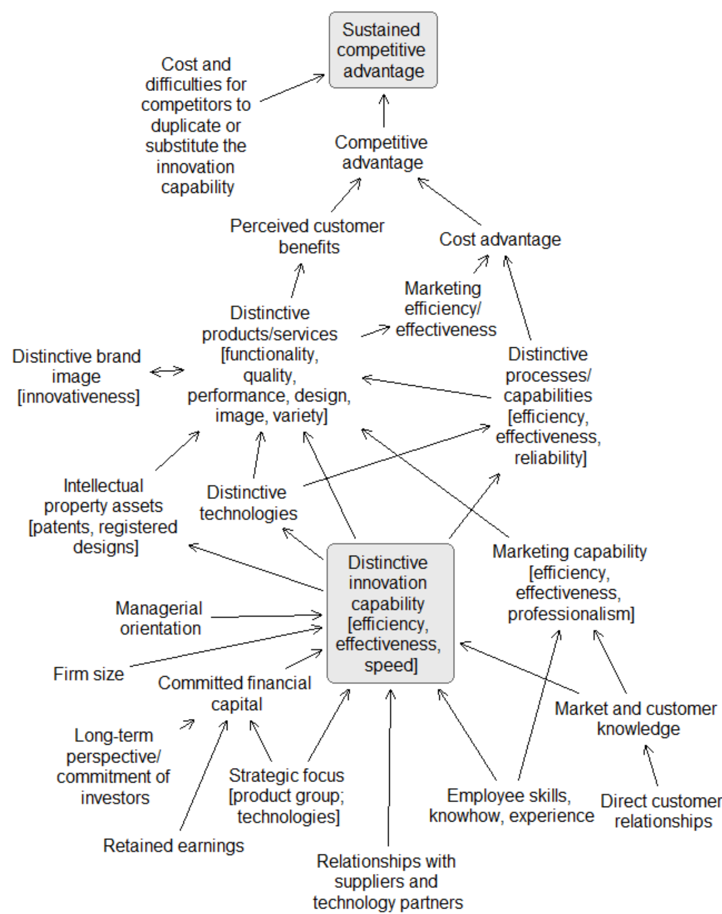

Figure 23: Integrative diagram for "innovation capability": concepts and their links to sustained competitive advantage

Respondents suggested that there are important differences between their respective firms and close competitors in terms of innovation capability. The first difference concerns *strategic focus*. Respondents from a number of cases (e.g., C1, C4, C10, and C11) argued that research and development activities of their respective firms are relatively focused and efficient. Respondents from C1 suggested, in addition, that the R&D budget of C1 is relatively high compared to more diversified firms, which have to split their budgets between many product groups and technologies. A strong focus on product development also has positive implications for the brand image. Respondents from C6, for example, suggested that their firm concentrates its development efforts on products that both address the needs of its core customer segments and fit the company's desired brand image perfectly. Respondents from C6 believed that such a focus is absolutely vital to maintaining a distinctive brand image. Respondents were convinced that undifferentiated brands, in contrast, would encounter difficulties once markets became more saturated.

The second difference refers to *firm size*. Respondents from C1, for example, explained that research and development activities are extremely resource intensive and that there is a minimum firm size below which such efforts are not feasible or efficient. Respondents from C1 and C4 argued that smaller competitors cannot afford such investments and that it is not cost-efficient for them to conduct research and development at the same level as the companies C1 and C4.

The third difference concerns *speed*, *timing*, and *continuity*. Respondents from two cases (C9, C11) suggested that their companies develop new products relatively quickly. In case C9, respondents suggested that the small size and the organizational set-up of C9 support short development cycles. In case C11, respondents suggested that the firm's speed stems from at least three sources. The first is the company's decision-making process. Respondents argued that decision-making is swift due to the firm's compact size and the physical proximity of its various departments and decision-makers to each other; larger competitors, by contrast, have longer and more convoluted decision-making structures and decision paths, especially if they only maintain a branch in Switzerland while the corporate head office and production is located somewhere else. The second source is C11's market orientation. Respondents noted that the firm is relatively close to the market and can therefore quickly pick up and respond to new market trends. The third source that respondents noted is firm culture: people not only discuss new ideas, products, and approaches, but also take concrete action to realize them.

However, respondents from C9 pointed out that the speed and quantity of product innovations need to be set at an appropriate level – it is important to be fast, but not too fast. On the one hand, one needs to keep pace with competitors and constantly renew and optimize one's products – but on the other, one must also avoid annoying or frustrating customers by asking them to switch from familiar products to new ones all too often. Respondents from C9 suggested that there is a fine line between stagnation and excessive innovation, and one must be able to regulate the speed at which new products come out. They argued that differentiating products at any cost would not result in higher firm performance. This need to achieve a balance between innovation and continuity was also noted by respondents from C7. According to R17 (C7), innovation and continuity are opposite poles, but both are essential in creating value for customers. Continuity means that the firm is to some extent predictable and provides some stability in terms of products, contact partners, distribution structures, and similar aspects. All this suggests that continuity is an important moderator of the innovation-

performance relationship, or, put differently, that the relationship between innovation and performance is non-linear.

A fourth difference exists with regard to *market and customer knowledge*. Respondents suggested that innovations need to be relevant for customers – that is, they must address customer requirements or needs better than existing products and services. An innovation might have more features than a competing product or service, yet not be optimal for customers because the competing product has a lower price and its features are sufficient to satisfy customer needs. In addition, as one respondent pointed out, knowledge about customers is also necessary for the marketing of a new product or service so that it is accepted by the customer.

Respondents also pointed out that product markets can be heterogeneous and products need to be localized accordingly. Understanding the fundamental differences in markets and in the needs of customers is necessary for the development of appropriate products, as well as for determining the possible scope for standardizing products and technologies across markets. It has been argued that firms failing to accept these differences in product development will eventually fail.

Some of the respondents further claimed that their companies are relatively close to the market. Some investigated firms maintain direct and collaborative relationships with customers; through these relationships, they collect, filter, and test new product ideas, and one firm even involves customers in specifically designed lead user programs to identify new needs. Such needs may concern, for example, a new product, adapting a product for a different application, updating or extending a product line, making an existing product line less expensive, or improving the processes around a product. Customers thus represent a major source of innovations. Respondents also mentioned a variety of other sources from which their firms receive valuable inputs for innovation, including membership in standardization bodies, expositions, contacts with experts within and outside the industry, and relationships with suppliers and technology partners. In one case, it was also suggested that some truly innovative ideas came from getting outside and letting oneself be inspired – it has been argued that this sort of innovation can hardly be found in a laboratory.

Direct research and development efforts also draw significantly on market knowledge. Respondents from C8, for example, suggested that through regular market analysis, the firm gets a feeling for the areas in which innovation can improve firm performance.

A fifth difference relates to the *skills, experience, and knowledge of employees*. In case C11, respondents suggested that their company has very competent and experienced people in research and development. The reliance of research and development on specific technological knowledge that has been developed over time was also noted by respondents from R2, while respondents from case C9 also highlighted the experience of the company's development and research personnel and their ability to develop good products. Respondents from C9 also argued that in C9's industry, having a core of employees with extensive experience in research and development is extremely valuable and indeed perhaps forms the all-important factor in success.

Respondents suggested furthermore that complementary skills and abilities in other functions are critical for firm success. In case C9, respondents asserted that from the beginning, the company has had competent people not only in research and development but also in logistics, finance, sales, and marketing; the skills of its personnel, in other words, cover a broad basis. Such a situation, these respondents suggested, is not very common among start-up firms: many start-ups simply possess a researcher with an idea, while everything else is more or less ad hoc.

A sixth difference concerns *marketing capability*. Respondents suggested that the successful introduction of new products also requires appropriate marketing capabilities and a distribution network. It has been emphasized that the way innovations are brought to the market can make a difference. R13 (C5), for example, argued that the activities involved in a market launch need to be well coordinated and executed at an appropriate level of professionalism and efficiency in order to achieve exceptional result, adding that even the best innovation is useless if a firm lacks the corresponding skills and abilities to introduce it to the market.

Overly technology-oriented firms, according to some respondents, often have inadequate marketing capabilities, and thus encounter difficulties in bringing technological innovations to the market. Respondents from C3 argued that the combination of innovation and marketing capability provides an edge over competing firms; these two capabilities result in high-quality products and services, a visible presence in the market, a good image, and high customer loyalty.

A seventh difference concerns the *orientation of the management team*. A technically educated management team, R10 (C4) argued, is an advantage in technology-oriented

industries, because engineers set a clear focus on value-adding innovations, while financial managers are more concerned with profitability.

Another difference relates to the *innovation approach*. In a number of cases, respondents suggested that their firm adopted a structured and interdisciplinary approach towards innovation management. In case C7, for example, respondents said that their company possesses a research and innovation team (RIT) in which all relevant functional departments are represented. At the periodic meetings of this team, collected inputs are discussed, assessed, and prioritized for further development. The overall time-to-market process covers about 20 steps. In this approach, the aspects of the product related to markets and customers are already considered in the early stages of the process.

A further difference refers to *collaboration within the firm*. Respondents from C11, for example, said that C11's product development is very efficient because development, marketing, sales and production personnel all work at the same location. Thus, the firm responds to customer needs, trends, and other market inputs relatively briskly. Being close together and seeing each other on a regular basis, respondents further emphasized, not only supports collaboration but also provides significant drive in the organization.

Still another difference concerns *collaboration with suppliers, technology partners, and advisory boards*. Respondents from C9, for example, noted that the company has a cooperative relationship with its suppliers and actively involves them in the product development process. New ideas come not only from working with existing suppliers but also from collaborating with new suppliers in related fields with the objective to generate something new. Respondents further pointed out that C9 always strives to get exclusivity from its technology partners. If newly developed products are introduced into the market and become a success, royalties flow to these technology partners. Developing products with partners, however, can be very time-consuming, particularly when these partners have many other priorities. Thus, respondents suggested that building up competence in-house through hiring people with the desired skills, experience, and networks is sometimes a more effective approach. The innovation process can also be supported by collaborating with an advisory board, a strategy that was noted by respondents from C9, who explained that due to C9's limited size, its work in the area of R&D draws on collaboration with an advisory board consisting of experienced people from the industry. The advisory board, respondents said, provides valuable feedback on the firm's development projects.

A final difference exists in terms of *investment capital*. In two cases, respondents suggested that the availability of funds for research and development is an advantage. Respondents from C11, for example, suggested that the company's investors are not interested in short-term gains and leave the money in the firm. In case C4, respondents said that their company has a long-term strategy and always invests a certain percentage in technology. This includes also technology that only pays off in the long term.

Innovation contributes to firm performance in different ways, respondents suggested. First, it helps to align products with future needs and technologies. Respondents from C7, for example, suggested that their industry is neither fast-paced nor emotional; rather, it is classical, traditional, and product-management oriented. They argued, however, that the firm can only survive with new and innovative products. Similarly, respondents from C4 said that their industry is migrating from mechanical to electronic products; any producer wanting to stay in this market needs to make this shift, either alone or in cooperation with a larger producer. The replacement may occur over a fairly long period, especially if the system base is large and benefits for customers from switching are low. One respondent (R18-C8) pointed out that as banal as it sounds, one important condition for success is the ability to maintain a marketable product; this, in this respondent's view, requires flexibility to accommodate products to changing product markets.

Second, innovation creates distinctive products and services. Distinctive products are crucial to the success of many of the investigated firms. In case C5, respondents pointed out that between 15% and 20% of the firm's annual turnover stems from products that came out in that same calendar year. In a similar vein, respondent from C11 argued that product innovations, novelties on the world market, are absolutely vital in C11's industry. In general, respondents suggested that their companies' products differ from those of competitors in a number of dimensions, including quality, reliability, functionality, usability, technology, safety, effectiveness, and design. Respondents from C7, for example, pointed out that innovations always provide additional benefits for customers. Respondents from C1 argued that C1's strategic focus allows it to provide better solutions than its competitors in some niche markets. In case C11, respondents suggested that the company's products are distinctive in terms of technology, functionality, usability, effectiveness, and design, while respondents in case C9 noted that their company's products are distinctive in their simplicity, which provides customer benefits in the form of lower application risks and firm benefits in the form of lower training costs.

In a number of cases, however, respondents noted that as products become commoditized, differentiation efforts shift to the service side. Respondents from C4, for example, said that their company has distinctive services around product usage that provide benefits in terms of safety and reliability. Similarly, respondents from C3 suggested that C3 provides unique services in terms of ordering, using, and maintaining their products, and further noted that C3 introduced a distinctive service concept in the market: the firm turned its products (i.e., capital goods) into services (i.e., capital services). In other words, C3's products can now be used for a fee, which offers a number of distinctive customer benefits, such as less bounded capital.

Third, there are also further research and development outcomes such as patents, legally protected designs, *and* proprietary/secret technology that can affect firm performance. R1 (C1) noted that legally protected designs as well as proprietary/secret technologies are a competitive strength and contribute to firm performance. Patents, on the other hand, are believed to have only a limited effect since they are equally distributed among competing firms.

Fourth, innovation contributes to a distinctive brand image. In a number of cases, respondents mentioned the contribution that innovations make to a distinctive brand image. Respondents from C5, for example, said that the attributes consumers associate with the brand include not only luxury but also the latest technologies and state-of-the-art performance. Respondents argued, however, that innovations are less important for strong brands with unique associations than for weaker brands. Weaker brands need to be much more unique and specific in their promise regarding innovation in order to compensate some of their weaknesses.

Fifth, innovation helps to reduce the threat of new entrants. Respondents from C7 suggested that specific product innovations – together with other assets like brand reputation, close customer relationships, and patents – increase the entry barriers for other firms.

Sixth, innovation helps to increase market share. Respondents from C7, for example, said that by far the main portion of the firm's increase in market share is attributable to innovation. Respondents from C5 suggested that innovations generate new interest and help to address new customer segments, though they also believed that there are clear limits to growth: if the brand has reached some level of penetration, there is also a risk that innovations cannibalize existing products.

Seventh, innovation facilitates market entry and reduces the cost of expansion. In case C9, respondents suggested that customers are very conservative: to convince customers to switch suppliers, new entrants need to provide them with plausible reasons for doing so. Innovations can help in this process, according to R20 (C9), who noted that although a firm can try to "force" customers to switch suppliers through aggressive marketing, an emphasis on innovation is more convincing and more effective – in other words, innovations in effect reduce the marketing cost for expansion.

Eighth, innovation can positively affect consumer behaviour. In case C11, respondents suggested that one of the company's major product innovations had a tremendous impact on consumer behaviour. This was an advantage for the firm insofar as it forced competitors to reflect this new consumer behaviour in their products.

Ninth, new technologies can produce scale effects. This was the case at, for example, C4: the respondents from that company said that the scale effects that new technologies afford their company are noticeable in the form of shorter payback periods and higher margins, providing an advantage over smaller firms who cannot afford such base technologies.

Finally, innovations can limit patent execution costs by reducing the need for complex patent monitoring and costly patent litigation through emphasizing constant renewal instead. The protection of innovation, respondents noted, can be difficult: although some innovations may be patented, enforcing patent rights is not without its problems, particularly in Asia. Respondents from C7 thus believed that spending money on product development to remain a step ahead of one's competitors is a more effective strategy to reap the benefits of innovation than engaging in endless and costly patent litigations.

While innovation has positive effects on firm performance, the study suggests that there are also factors, such as the product life cycle, that moderate these effects. Respondents at C9 explained that in the early stages of the life cycle of C9's main product, suppliers placed emphasis on two aspects: first, on convincing customers that the new product is based on sound science, that risks can be estimated, and that success rates are correspondingly high, and second, on training customers in using the product. Scientific studies and training, however, have lost some of their importance since the product is now accepted and many customers have been trained. In the next stage of the product life cycle, the emphasis has clearly shifted towards product innovation since the products of C9 and its competitors have become increasingly similar.

In terms of rareness, respondents in general suggested that innovation capability is not distributed equally among competing firms. Respondents from C7, for example, suggested that C7's two closest competitors deliver no innovation, while its other competitors either copy C7's products or have a so-called "wait-and-see" strategy. Why the larger of C7's competitors do not invest more in innovation remains a bit of a puzzle to respondents from C7. Possible explanations include that this segment of the market is not of strategic importance to them or that they have more lucrative investment opportunities elsewhere.

Respondents in general suggested that innovations from R&D are not that difficult to replicate. According to R9 (C3), all firms have some innovation potential, and realizing it would simply require them to invest more in developing it. Respondents from C11 also suggested that C11's competitors may to some extent imitate the firm's innovation approach, following a classic strategy as described in textbooks. In a similar vein, respondents from C7 suggested that their company's RIT process could in principle be copied, but suggested that this would be a lengthy process: one cannot simply generate a list of ideas and a week later submit twelve patent applications. Still, respondents from C7 believed that close competitors could invigorate their innovation processes by collecting and processing ideas, assuming they first became aware of this performance improvement opportunity.

Despite some respondents' contention that distinctive innovation capability can be replicated, however, the resource-based view offers a number of reasons for believing that such duplication or imitation can be both difficult and costly. One such reason is *path dependency*. As discussed above, some competitors would need to increase their strategic focus to attain a similar level of efficiency and effectiveness in research and development. This could be costly if, for example, it were to involve divestments and organizational restructuring. Likewise, smaller competitors below the minimum efficient size for research and development would need to grow their business or cooperate with other firms to gain the critical size.

A second reason is *social complexity*. The development of products, services and processes can be interdisciplinary, involving different teams and people within and across organizations. The work relationships between them and the synergetic effects in their teamwork may be hard to understand and replicate.

A third reason is *causal ambiguity*. The causal link between innovations and firm performance may be obvious. However, the source of a firm's ability to produce innovations, that is, its innovation capability, may be much harder to understand: it is no easy matter for competing firms to observe the routines and activities that underlie the focal firm's innovation capability. Thus, there may be some level of uncertainty about what needs to be imitated.

A fourth reason relates to *asset interconnectedness*. Respondents suggested that innovation capability is supported by other firm assets such as market and customer knowledge, close customer relationships, employee skills and experience, marketing capabilities, distribution networks, and extant technology. Competitors lacking one or more of these assets can therefore not perfectly imitate the innovation capability. If at least one of these underlying assets and capabilities is rare and difficult to imitate and substitute, asset interconnectedness can hinder competitors from duplicating the focal firm's innovation capability. Such assets include, for example, industry-specific skills and experience in R&D, as indicated in case C9, or proprietary technology, as indicated in case C1.

In terms of non-substitutability, the study did not find any resource or bundle of resources that could be considered a perfect substitute for a distinctive innovation capability. There is, however, some possibility to substitute other practices for innovation capability. One option is to cooperate with firms that have such competences. A second option is to buy innovation outcomes such as patents, product designs, or technology in corresponding factor markets.

13.4 LITERATURE

In strategic management oriented RBV literature, the concept of organizational innovation is addressed from a static and from a dynamic perspective. Grounded in standard economic theory, the static perspective considers the sources of superior firm performance in equilibrium conditions, that is, when competitors have stopped trying to duplicate another firm's bases of superior performance (Barney & Clark, 2007; Barney, 1986b; Lippman & Rumelt, 1982; Peteraf & Barney, 2003; Peteraf, 1993; Rumelt, 1984). In this perspective, innovation is discussed primarily as an exogenous variable that could erode a firm's bases of competitive advantage (see Barney & Clark, 2007, p. 53). When such radical and disruptive changes in the firm's environment (Barney, 1986c; Rumelt & Wensley, 1981; Schumpeter, 1934, 1950) occur, it is suggested that the firm needs to find

new uses for affected resources; if the firm can discover opportunities to deploy its scarce and difficult-to-imitate resources in an altered or new competitive setting, it can restore its competitive advantage (Baaij, Greeven, & Van Dalen, 2004; Barney & Clark, 2007; Barney, 2000). Firms, some scholars suggest, need to have some organizational capabilities to adapt to environmental changes (Barney & Clark, 2007). Furthermore, it is suggested that innovation can lead to first-mover advantages, which can be difficult or costly for competitors to replicate (Barney, 1997).

The static perspective does not typically include innovation in the analysis of firm-level factors affecting competitive advantage (Foss, 1998). One possible explanation for this omission is that evolutionary phenomena like innovation are not of primary interest to predominantly economics-oriented RBV scholars, as their focus is rather on the sources of and conditions for superior firm performance in market equilibria (Foss, 1998). Another reason might be the static perspective's implicit assumption that firms implement strategies that make the best use of their asset base – that is, that innovation is a strategy implementation dimension that reflects a firm's attempts to combine resources in ways that exploit its full economic potential. A final possible explanation for the absence of firm innovation from the static strategic management oriented RBV literature is that innovation is considered to be the province of other research domains such as innovation and technology management (e.g., Barney & Arikan, 2001) or entrepreneurship (e.g., Rumelt, 1987).

The dynamic perspective, by contrast, is process-oriented and focuses attention on innovation and other evolutionary phenomena, such as competence development, organizational learning, asset accumulation, or renewing the bases of competitive advantage (Amit & Schoemaker, 1993; Dierickx & Cool, 1989; Eden & Ackermann, 2010; Foss, 1998; Heene & Sanchez, 1997; Helfat & Peteraf, 2003; Makadok, 2001; Teece et al., 1997). Some scholars argue that the possession of resources that are valuable, scarce, and difficult or costly to imitate, as proposed by static RBV, is insufficient to maintain a competitive advantage in changing business environments: it needs to be supplemented by adequate strategic and operational routines, so called dynamic capabilities, that enable a firm to alter its resource base in anticipation or response to changes in the external environment (Eisenhardt & Martin, 2000; Teece et al., 1997; Teece, 2007). These dynamic capabilities also encompass innovation processes (Helfat, 1997; Teece, 2009). Teece (2009, p. 52) suggests that to maintain competitiveness, a firm needs to produce, market, and organizationally embed a "continuous stream of innovation

consistent with customer needs and technological opportunities." However, Teece (1986a) argues that innovations, though necessary, are not sufficient for attaining competitive advantage. Collis (1994), on the other hand, argues that a superior capability, such as product innovation, can be a source of superior firm performance; there is, however, a latent risk that competitors may substitute that capability with a more sophisticated one. Collis (1994, p. 148) therefore suggests that superior firm performance ultimately hinges on the firm's ability to innovate capabilities (what he terms "meta capability").

A further area of research that can be labelled a dynamic perspective is competence-based management (CBM). Like the DC perspective, the CBM perspective suggests that capabilities are essential for deploying firm assets and for building and adapting capabilities, and that a firm's long term success is a function of its overall capabilities to address market opportunities and risks (Sanchez & Heene, 2004). However, the CBM perspective places a stronger emphasis on the management team's role in ensuring that firm capabilities match the exigencies of markets. This perspective suggests that managers can, through their "cognitive processes", identify and shape optimal capability development trajectories (Sanchez et al., 1996a; Sanchez & Heene, 2004).

In terms of innovation, the CBM perspective suggests that innovation can occur at both the strategic and the operational level. At the strategic level, innovation occurs when the management team creates a distinctive concept ("strategic logic") to generate and allocate economic value (Sanchez et al., 1996b; Sanchez & Heene, 1996).

At the operational level, innovation can take place through the firm's "product creation" process consisting of a set of activities, including defining new product offers, designing and developing new products and processes, and building up the necessary capabilities to make, market and deliver the defined product offer (Sanchez & Heene, 2004; Sanchez, 1996). The product creation process can be sporadic in relatively stable market conditions and constant in more dynamic market conditions (Sanchez & Heene, 2004). The ability to align products to changing market conditions is thus only a necessary, not a sufficient, condition for competitive advantage.

A central aspect of organizational innovation seems to be the firm's ability to define and develop market offerings that provide a relatively high net delivered customer value (NDCV, Sanchez & Heene, 2004). The NDCV framework, developed by Kotler (1991), suggests that customers judge the value of a market offering on the basis of four benefit

dimensions and four cost dimensions. In order to define, develop, and deliver market offerings that increase NDCV, the firm needs to "attract" corresponding resources, including "information resources to identify its best opportunities for creating new products, as well as financial resources to fund investments in developing products…" (Sanchez & Heene, 2004, p. 48). This seems to indicate that the true source of competitive advantage lies in the firm's ability to attract these resources. Obviously, one can take this one step further and argue that the ultimate source of competitive advantage lies in the structures responsible for that superior ability to attract these resources (for a discussion of the problem of infinite regress see Collis, 1994).

The strategic management oriented RBV literature suggests that innovation capability has two main effects on firm performance. First, it helps to exploit resources more economically. Penrose (1959) contends that there is always spare capacity in resources, and firms are inherently motivated to exploit their resources as economically as possible; innovation represents one way of tapping into this potential by combining resources in novel, more effective ways, resulting in new or improved goods and services, operational processes, and forms of management.

Second, innovation capability helps build technological assets that facilitate the appropriation of value in disequilibrium conditions. Penrose (1959, p. 137) asserts that innovations help build "relatively impregnable [technological] bases" which are critical to maintaining a competitive advantage in ambiguous and relentlessly evolving business settings.

Despite the relatively high weight attributed to organizational innovation, there is surprisingly little empirical work in strategic management oriented RBV scholarship on the relationship between innovation capability and firm performance. There are, however, some RBV studies in other disciplines. A study conducted by Calantone, Cavusgil, and Zhao (2002) finds that organizational innovativeness affects firm performance positively. The findings suggest that superior performance rests on a firm's knowledge about customers, markets, and technologies. Another study, conducted by Cooper and Kleinschmidt (1987), argues that superior product development abilities positively affect commercial success.

A host of other empirical work related to innovation capability addresses the antecedents or attributes of innovation capability. For example, a study by Kumar et al. (2000) investigates 25 firms that successfully introduced ground-breaking innovations

that delivered substantial added value to customers. The study suggests that the success of these innovations is attributable to their market orientation and their ability to develop a unique business system (i.e., resource configuration). Bates and Flynn (1995) also examine the roots of innovation capability, contending that it is affected by the skills and expertise accumulated over time. Meanwhile, McGrath et al. (1995, p. 389), suggest that the ability to develop rent-generating innovations has four antecedents: "causal understanding; innovation team proficiency; emergence and mobilization of new competences; and creation of competitive advantages."

The broader innovation literature also seems to indicate that the relationship between innovation capability and firm performance is moderated by a number of factors, including type of innovation, firm size, and type of organization (Camison-Zornoza, Lapiedra-Alcami, Segarra-Cipres, & Boronat-Navarro, 2004; Damanpour, 1992)

To what extent, then, is innovation capability rare among competing firms? Eisenhardt and Martin (2000) argue that dynamic capabilities among competing firms, including their innovation routines, may differ in terms of composition and characteristic but are relatively similar in terms of the roles they fulfil. These authors conclude that such functionally equivalent routines are not a source of competitive advantage; the source of competitive advantage can rather be found in the outcome that these routines produce, such as new competences.

A further interesting observation by these two authors is that as environmental dynamism increases, the routines underlying dynamic capabilities become less structured, reliable, and controllable and more reliant on ad hoc knowledge. This suggests that innovation routines are relatively homogenous among firms in the same industry, but not necessarily across industries. Another aspect that affects the rareness condition concerns the degree of immobility. Capron (1999) suggests that an innovation capability can be transferred to other firms through mergers and acquisitions; the transfer process, however, is time-consuming and requires organizational integration efforts. This, in turn, could be interpreted as indicating that the factor markets for innovation capability are either incomplete or imperfectly efficient (cf. Barney, 1986b; Dierickx & Cool, 1989).

What about the extent to which innovation capability is difficult or costly to imitate? As discussed above, the dynamic capability view suggests that innovation routines, a subset of dynamic capabilities, do not vary widely in terms of their functional value among a set

of competing firms and are often implemented according to “best practice” (Eisenhardt & Martin, 2000, p. 1106). Some empirical evidence, however, indicates that innovation capability can be causally ambiguous, since it involves imperfectly transparent skills, knowledge, and routines (Bates & Flynn, 1995). Empirical work further suggests that innovation capability has a path-dependent dimension (Bates & Flynn, 1995; Roberts & Amit, 2003), which makes direct replication rather difficult for competing firms. Another reason that impedes imitation is asset interconnectedness (cf. Dierickx & Cool, 1989), that is, the reliance of the capability on a set of interrelated firm resources which are individually or in combination difficult or costly to imitate. Scholars suggest that apart from superior skills in developing products there are also complementary resources, such as marketing capabilities that are important to innovation success (Barney, 1997; Stieglitz & Heine, 2007; Teece et al., 1997). Imitation is therefore difficult for competitors since they need to understand and replicate a complex system of resources rather than a simple, discrete resource.

As for non-substitutability, the strategic management oriented RBV literature does not directly indicate whether innovation capability can be substituted by other firm resources or bundles of firm resources. However, competitors may have options with regard to substitution. One option is to establish cooperative relationships with market partners to either access or jointly develop such capabilities and competences (Leiponen, 2005; Michalski, 2005; Oxley & Sampson, 2004; Rothaermel & Deeds, 2004). A second option is to contract out R&D and other innovation activities to external firms (Quinn, 2000). A final option is to try to obtain innovation outcomes, such as product designs, patents, or technology, directly in corresponding factor markets (cf. Barney, 1986b; Dierickx & Cool, 1989).

Although these alternatives (i.e., resource bundles) may produce similar outcomes, they can only be considered perfect substitutes for a distinctive innovation capability if they are both equivalent in their functional value and not more costly to obtain or develop (Barney & Arikan, 2001; cf. Barney, 1991, 2001a; Dierickx & Cool, 1989; Mahoney & Pandian, 1992; Peteraf, 1993; Wernerfelt, 1984).

13.4.1 BROADER INNOVATION LITERATURE: DEFINITIONS, ANTECEDENTS, AND TYPOLOGY

In addition to the RBV literature, there is an extensive body of literature in several disciplines and subdisciplines that can potentially provide insight into the relationship between innovation capability and firm performance. I will next briefly review key

aspects of that literature, including (1) definitions of innovation; (2) resources and capabilities associated with innovation capability; and (3) types of innovations.

Reflecting different traditions and perspectives, the organizational innovation literature provides a broad array of definitions and conceptualizations of innovation; this surfeit of definitions leaves the concept relatively opaque and ambivalent (McFadzean et al., 2005, p. 353). Damanpour (1987, p. 676), for example, defines innovation as "the implementation of an idea – whether pertaining to a device, system, process, policy, program, or service – that is new to the organization at the time of adoption". Another, more process-oriented, definition is provided by McFadzean (2005, p. 353), who describes innovation as "a process that provides added value and a degree of novelty to the organization and its suppliers and customers through the development of new procedures, solutions, products and services as well as new methods of commercialization."

The broader organizational innovation literature also suggests that innovation capability relies on a set of firm assets and capabilities. Assets include (1) financial assets (Helfat, 1997; Lee, Lee, & Pennings, 2001; Teece et al., 1997); (2) technological assets such as information technology, technical equipment, machines and testing facilities (Mitchell & Zmud, 1999; Song & Parry, 1997); (3) organizational knowledge (DeCarolis & Deeds, 1999; Galunic & Rodan, 1998; Helfat & Raubitschek, 2000; Hoopes & Postrel, 1999; Kogut & Zander, 1992; Nonaka, 1994); (4) employee skills, experience, knowhow, and relationships (Bates & Flynn, 1995; Del Canto & González, 1999; Rodan & Galunic, 2004).

Capabilities, on the other hand, include (5) marketing capability (Hultink, Hart, Robben, & Griffin, 2000; Song & Parry, 1996, 1997; Song, Souder, & Dyer, 1997); (6) entrepreneurship (Drucker, 1985; Lumpkin & Dess, 1996); (7) organizational learning (Helfat & Raubitschek, 2000; Karnoe, 1995; Lane & Lubatkin, 1998; Lynn, Skov, & Abel, 1999); (8) relational capabilities (Capaldo, 2007; Lorenzoni & Lipparini, 1999; Quinn, 2000); (9) R&D capabilities (Verona, 1999); (10) ambidexterity in exploring and exploiting resource combinations (Andriopoulos & Lewis, 2010; Benner & Tushman, 2003; Danneels, 2002; Jansen, Van den Bosch, & Volberda, 2005; Kanter, 1989; Sidhu, Volberda, & Commandeur, 2004; Tushman & O'Reilly, 1996); and (11) ambidexterity in vertical integration and strategic outsourcing (Rothaermel, Hitt, & Jobe, 2006).

In the broader organizational innovation literature, innovations have been classified with regard to one or more variables characterizing the process or the nature of the

innovation, the innovation process, and the effect that such changes have on society, markets, institutions, organizations, and individuals. Distinctions have been made between product versus process innovations (Damanpour, 1992; Ettlie & Reza, 1992; Knight, 1967; Pisano & Wheelwright, 1995; Tushman & Nadler, 1986; Utterback & Abernathy, 1975), incremental versus radical innovations (Abernathy & Clark, 1985; Dewar & Dutton, 1986; Ettlie, Bridges, & O'Keefe, 1984; Kumar et al., 2000; Pelz, 1983), and administrative versus technical innovations (Damanpour & Evan, 1984; Damanpour, 1987, 1996; Ibarra, 1993; Kimberly & Evanisko, 1981; Knight, 1967).

Other variants of innovation classification include administrative versus nonadministrative innovations (Abrahamson, 1991), technological versus nontechnological innovations (Weerawardena & O'Cass, 2004, p. 426), high-risk versus low-risk innovations (Ganuza, Llobet, & Domínguez, 2009; Kaluzny, Veney, & Gentry, 1974), continuous versus dynamically continuous versus discontinuous innovations (Robertson, 1967), and variations versus reorientations (Normann, 1971). Further types of firm-level innovations mentioned in the literature include architectural innovation (Galunic & Eisenhardt, 2001; Henderson & Clark, 1990), business model innovation (Chesbrough, 2010; Gambardella & McGahan, 2010; Sosna, Trevinyo-Rodríguez, & Velamuri, 2010; Teece, 2009), business system innovation (Kumar et al., 2000), marketing innovation (Brown, 1992; Kotler et al., 2009; Porter, 1985; Ren, Xie, & Krabbendam, 2010; Teece, 2009), and strategic innovation (Govindarajan & Gupta, 2001; Pitt & Clarke, 1999; Winter, 2003).

13.5 INTEGRATIVE DISCUSSION OF FINDINGS AND LITERATURE

Respondents from the majority of the 11 cases suggested that their ability to innovate is a competitive strength. In most cases, respondents considered it a source of competitive advantage, and in one case even a source of sustained competitive advantage. The study therefore asserts that a distinctive innovation capability is a source of competitive advantage – that is, it is valuable, rare, imperfectly imitable, and imperfectly substitutable. In the following, I will offer a synthesis of the findings of this study and the relevant literature, with particular attention to these prerequisites of competitive advantage.

Organizational innovation is not specifically mentioned in the reviewed RBV literature as a source of sustained competitive advantage. In the RBV literature with a static, traditional approach, the subject of organizational innovation is virtually absent, while

in the more dynamically oriented RBV literature, innovation is occasionally mentioned in relation to dynamic capabilities (Eisenhardt & Martin, 2000; Teece, 2007). It has been suggested that dynamic capabilities comprise innovation processes, which are necessary but not sufficient for competitive advantage (Teece, 2009). However, the dynamic capability literature is still relatively vague with regard to what these innovation processes are and how they relate to other organizational processes used to create or respond to market changes (cf. Eisenhardt & Martin, 2000).

The broader organizational innovation literature, meanwhile, depicts innovation as an organizational process that creates relatively unique and valuable outcomes. Damanpour (1987), for example, defined innovation as "the implementation of an idea – whether pertaining to a device, system, process, policy, program, or service – that is new to the organization at the time of adoption". McFadzean (2005, p. 353), on the other hand, defined innovation as "a process that provides added value and a degree of novelty to the organization and its suppliers and customers through the development of new procedures, solutions, products and services as well as new methods of commercialization." As we will see, the way in which innovation is conceptualized influences how its role in creating competitive advantage is viewed.

13.5.1 TYPES OF INNOVATION

Regarding types of innovation, this study is in general agreement with the existing literature that innovation can be divided into a variety of types depending on the focus of the area in which innovation takes place (administrative versus technical, say, or product versus process) or factors like the speed or completeness (say, incremental versus radical) of innovation (for details and references, see the literature review in Section 13.4). The present study classifies innovation primarily with regard to the area in which it occurs, and suggests that there are four types of innovation: technology (basic and applied research), process (e.g., intra- or interorganizational efficiency), product (application of new technologies, or old ones in novel ways), and service innovation (innovations in distribution or usage).

13.5.2 ANTECEDENTS AND CHARACTERISTICS OF A DISTINCTIVE INNOVATION CAPABILITY

With respect to innovation capability there are important differences between the investigated firms and their close competitors, including strategic focus (i.e., a low level of diversification), firm size (i.e., a minimum efficient size for conducting R&D efficiently), market and customer knowledge, managerial skills (e.g., timing,

ambidexterity in balancing innovation and continuity), market and customer knowledge, employee skills and experience (particularly in R&D), marketing capability, management orientation (e.g., technology focus), relationships within the firm (close, collaborative, cross-functional), relationships with suppliers and technology partners (collaborative), investment capital (e.g., availability, internally generated funds, long-term investment horizon of investors), and decision making processes (speed). Distinctive, more intrinsic characteristics regarding innovation capability consist of speed, efficiency, and effectiveness.

Some of the above-mentioned differences are reminiscent of the antecedents of successful innovation found in other empirical RBV studies. McGrath et al. (1995, p. 389), for example, contend that the ability to develop rent-generating innovations depends on "causal understanding", "innovation team proficiency", "emergence and mobilization of new competences", and "creation of competitive advantages". Bates and Flynn (1995) find that accumulated skills and expertise affect innovation capability, while Kumar et al. (2000) argue that innovation success is attributable to market orientation and the ability to build a unique business system.

The wider organizational innovation literature suggests that organizational innovation is associated with a broad set of assets and capabilities ranging from financial and technological assets to employee skills and experience and on to vertical integration and outsourcing abilities (for details and references, see the literature review in Section 13.4). The present study basically agrees, and especially emphasizes that innovation is not a matter of dabbling in any kind of experimentation, but rather requires skill in several functional areas from entrepreneurship to R&D to marketing.

13.5.3 Evaluating VRIN: Value

Respondents suggested that innovation contributes to firm performance in multiple ways. It helps to align products with future needs and technologies, creates distinctive products and services, creates valuable IP assets (e.g., patents, protected designs, proprietary/secret technology), contributes to a distinctive brand, reduces the threat of new entrants, increases market share (addressing new market segments), facilitates market entry and expansion (thereby lowering marketing costs), changes consumer behaviour (forcing competitors to respond), creates scale effects, and lowers patenting costs (i.e., producing a constant stream of innovation is more lucrative than enforcing patent rights in court). The study also indicates that the relationship between innovation

capability and firm performance can be moderated by other factors such as product life cycle.

These findings are in part reflected in the strategic management oriented RBV literature. Eisenhardt and Martin (2000, p. 1107) assert that dynamic capabilities (which include innovation processes) help create new "resource configurations" to "match, or even create market change". Penrose (1959) contends that innovation is one way to exploit resources more economically by combining resources in novel, more effective ways, resulting in new or improved goods and services, operational processes, and forms of management. Penrose (1959, p. 137) furthermore argues that innovation helps to create difficult-to-imitate assets ("impregnable bases"), which are critical to maintaining a competitive advantage in ambiguous and relentlessly evolving business settings.

The strategic management oriented RBV contains relatively little empirical research on the relationship of innovation capability to firm performance, though, as noted in the literature review section, a few studies exist in other disciplines indicating a link between organizational innovation and firm performance as well as between superior product development abilities and commercial success (see Calantone et al., 2002; Cooper & Kleinschmidt, 1987). Relationships between organizational innovation and firm performance appear, according to the broader innovation literature, to be shaped by a number of factors such as firm size, type of organization, and type of innovation (Camison-Zornoza et al., 2004; Damanpour, 1992).

In sum, the findings of the study clearly indicate that innovation capability is valuable. This finding is also supported by the RBV literature, and to some extent by prior empirical research in related bodies of literature.

13.5.4 EVALUATING VRIN: RARENESS

In terms of rareness, respondents in general suggested that innovation capability is not homogeneously distributed among competing firms. As discussed above, important differences between competing firms include strategic focus, firm size, market and customer knowledge, managerial skills, employee skills and experience, marketing capability, management orientation, relationships within the firm, relationships with customers, suppliers and technology partners, investment capital, and decision making processes. Furthermore, it has been indicated that the innovation capability differs in terms of speed, efficiency and effectiveness.

The finding of this study, that innovation capability is heterogeneously distributed among competing firms, contradicts some of the dynamic capability literature. Eisenhardt and Martin (2000), for example, suggest that dynamic capabilities among competing firms, which include innovation routines, while they may differ in terms of composition and characteristics, are relatively similar in terms the roles they fulfil. One reason for the discrepancy between such work and the findings of the present study may be found in the way innovation is conceptualized. Eisenhardt and Martin (2000) depict dynamic capabilities, such as product development, as relatively simple routines. The present study, in contrast, suggests that innovation capability is a complex resource, comprising a set of distinctive resources and capabilities.

Other literature is more consistent with the present study's finding regarding the rareness of innovation capability, indicating, for example, that differences in innovation capability cannot be quickly adjusted through efficient factor markets. Capron (1999) contends that while innovation capability can be transferred to other firms through mergers and acquisitions, the integration of such a capability is time-consuming and requires organizational integration efforts. This, in turn, could be interpreted as meaning that factor markets for innovation capability are either incomplete or imperfectly efficient (cf. Barney, 1986b; Dierickx & Cool, 1989).

13.5.5 Evaluating VRIN: Inimitability

Respondents in general suggested that innovations from R&D are not that difficult to replicate. Some respondents suggested that all firms have innovation potential and that they could exploit it with corresponding investments. A few respondents also argued that competitors in principle could copy their firm's innovation approach, since it is similar to the approaches described in textbooks. However, it has also been argued that developing innovations is time-consuming – one cannot simply collect a set of ideas and some days later submit a set of patent applications. Furthermore, one respondent noted that before competitors could attempt to close the gap, they first need to become first fully aware of their innovation potential.

Respondents, then, expressed some ambiguity regarding the replicability of innovations, reflecting some ambiguity existing in the literature. There are, for instance, works arguing that innovation routines and other routines making up dynamic capabilities are often implemented in the form of "best practice" (see Eisenhardt & Martin, 2000). On the other hand, though, literature in the resource-based perspective vein also offers some

reason to believe that distinctive innovation capability can be difficult and costly to imitate because of the *path dependency*, *social complexity*, *causal ambiguity*, and *asset interconnectedness*. These imitation barriers are discussed in greater detail above in the findings and the literature review sections (13.3 and 13.4), and will only be very briefly summed up here.

Regarding path dependency, both respondents in this study and prior empirical work suggest that innovation capability has a path-dependent dimension (Bates & Flynn, 1995; Roberts & Amit, 2003), which makes direct replication for competing firms rather difficult; as respondents noted, competitors might, for example, be required to increase their strategic focus to increase their R&D efficiency. Social complexity, respondents argued, was also a factor: teamwork and its attendant complexities is not easy to duplicate. Causal ambiguity is another strong barrier to imitation: respondents noted that the specific processes through which innovative capability is achieved are difficult to observe, while prior empirical work also notes that innovation capability involves imperfectly transparent skills, knowledge and routines (Bates & Flynn, 1995). Finally, asset interconnectedness (see Dierickx & Cool, 1989) is noted in both the results of this study and in the literature: respondents made reference to a large variety of assets ranging from market knowledge to employee skills to distribution networks as underlying innovation capability, while RBV scholars, too, suggest that complementary assets, such as marketing capability, can be critical for innovation success (Barney, 1997; Stieglitz & Heine, 2007; Teece et al., 1997).

On the whole, then, imitation is difficult for competitors, since they need to understand and replicate a complex system of resources rather than simply one easily identifiable, discrete resource, and because there is uncertainty about what exactly it is that needs to be replicated.

13.5.6 Evaluating VRIN: Non-substitutability

In terms of non-substitutability, the study did not find any resource, or bundle of resources, that could be considered a perfect substitute for a distinctive innovation capability. Likewise, the strategic management oriented RBV literature does not directly point to the existence of such strategic substitutes.

Competitors do, however, appear to have some options regarding substituting something else for a superior innovation capability, at least in part, through cooperative relationships with market partners, through contracting out R&D, or through

purchasing, for example, product designs and patents in the corresponding factor markets. All these strategies have been noted in the literature, though many scholars have also argued that while viable enough, they can probably only partially replace distinctive innovation capability (for references, see the literature review in Section 13.4).

13.6 PROPOSITIONS

Based on the foregoing discussion, I suggest the following:

> *Proposition 14 – Innovation capability (i.e., the ability to combine resources in novel, more effective ways resulting in new or improved goods and services, operational processes, and forms of management) is a necessary condition for competitive advantage in dynamic environments.*
>
> *Proposition 15 – A distinctive innovation capability is a source of sustained competitive advantage in dynamic and non-dynamic environments.*

13.7 CHAPTER CONCLUSION

This chapter concentrated on *innovation capability* as a source of competitive advantage. It presented the findings of the study, reviewed the relevant RBV and organizational innovation literature, and offered a synthesis of the study findings and the literature with particular attention to assessing the potential of innovation capability to provide a sustained competitive advantage based on VRIN criteria. Finally, it developed conclusions in the form of testable propositions. Based on this analysis I conclude that a distinctive innovation capability is a source of sustained competitive advantage, since it is valuable, rare, and imperfectly imitable and substitutable.

In the following chapter, I will present the *ability to control employee fluctuation* as the next major finding that elucidates why performance differs among competing firms.

14 FINDINGS AND DISCUSSION: ABILITY TO CONTROL EMPLOYEE FLUCTUATION AND SUSTAINED COMPETITIVE ADVANTAGE

14.1 CHAPTER INTRODUCTION

This chapter reports the finding that an *ability to control employee fluctuation* is a source of competitive advantage. Though this capability was not as prominent in the case interviews as some of the others, several respondents pointed to it as an important contributor to firm performance, noting that a firm needs to be able to ensure an appropriate level of turnover in its workforce. I argue that controlling employee fluctuation is necessary if a firm is to avoid harmful erosion of human resources, on the one hand, and stagnation of skills and knowhow on the other.

The chapter is organized as follows. It opens with a brief definitional discussion, and then moves into the findings of the study. The next step is reviewing the RBV relevant literature, which is then synthesized with the findings of the study. Finally, the chapter develops conclusions in the form of testable propositions.

14.2 DEFINITION

The term employee fluctuation, or workforce turnover, may be understood as the total changes in the workforce relative to the entire workforce during a given time period. This concept does not specifically address, however, whether these shifts in the workforce have positive or negative implications for the development of performance-relevant human assets such as skills, knowhow, or work relationships. A more fine-grained concept, the ability to control employee fluctuation, emerged from the present study. The ability to control employee fluctuation can be defined as the firm's capability to align and maintain performance relevant human capital resources by shaping and managing corresponding resource development paths.

14.3 FINDINGS

Respondents from four firms (cases) suggested that their respective firms' ability to maintain a moderate level of employee fluctuation has a positive impact on firm performance. Changes in the workforce have direct implications for employee-related resources like skills, knowhow, and experience, as well as for other firm resources like

customer relationships or firm reputation; these, in turn, affect firm performance. Respondents suggested that there is an ideal employee fluctuation rate in any given situation and that deviation from that ideal has negative implications for the accumulation of valuable employee-related resources, or may even lead to an erosion of these resources. Figure 24 provides an overview of the factors influencing controlled employee fluctuation and the effects of the fluctuation on competitive advantage.

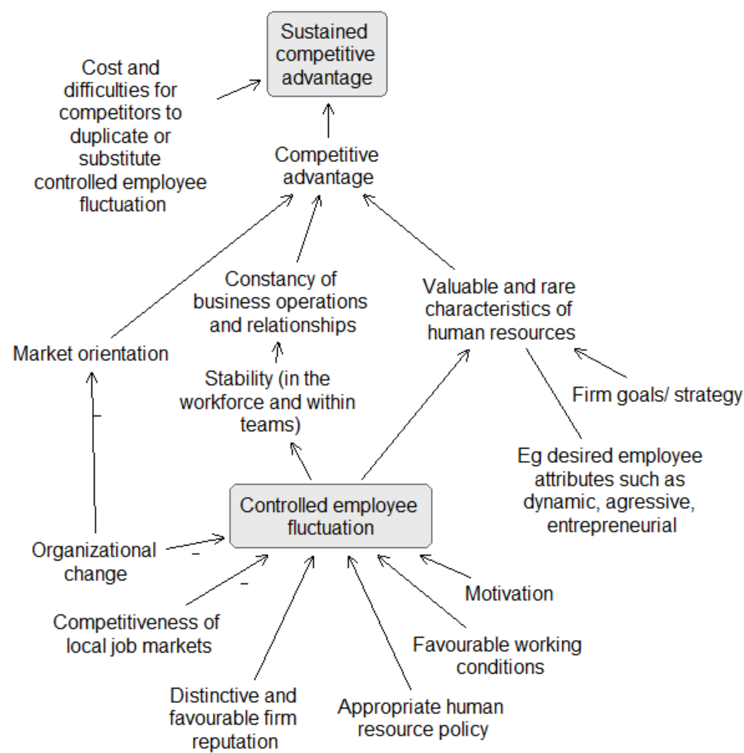

Figure 24: Integrative diagram for "employee fluctuation": concepts and their links to sustained competitive advantage

Controlled employee fluctuation seems to depend on a number of conditions, including human resource policy, the competitiveness of local job markets, firm reputation, working conditions, and motivation. Controlled employee fluctuation has two major consequences that affect competitive advantage positively. First, it allows the accumulation of valuable and rare characteristics of human resources, which in turn lead to competitive advantage. Second, it increases stability in the workforce and in teams, which then leads to constancy in business operations and relationships and ultimately to competitive advantage.

14.3.1 Stability in the workforce and constancy in business operations and relationships

One effect of low employee fluctuation relates to stability in the workforce. R6 (C2), for instance, said that for the firm to succeed in its industry, some degree of constancy in the business is required, and that presumes some stability in the workforce; this general sentiment was also echoed by R2 (C1), who noted that continuity in the workforce is an advantage for the operation of the business. In a similar vein, R24 (C10) expressed the belief that the stability that exists in the firm's management team is a factor that contributes to the success of the firm, while R25 (C11) suggested that stability in the company's workforce has had a positive impact on the relationships with customers and business partners. Economically, the positive effects of stability may be interpreted as follows: Change, the opposite of stability, incurs transaction costs. Transaction costs may include, for instance, costs of developing effective and efficient teams, developing trust among team members, establishing trusting relationships with customers and partners, and coordinating employee skills, knowhow, and experience. Furthermore, transaction costs may arise from the uncertainty caused by change. For example, a newly formed team's ability to keep an important deadline may be uncertain. Another example is uncertainty regarding the impact of a change in the management team on that team's effectiveness.

In short, moderate employee fluctuation leads to moderate transaction costs, which in turn contributes to firm performance.

14.3.2 Development of rare employee characteristics

A second effect concerns the accumulation of rare and valuable human resources and the development of other rare characteristics of people. Most of the respondents suggested that a controlled level of employee fluctuation is a necessary condition for accumulating valuable employee-related resources, including skills, knowhow, and experience. In other words, these firms seem to be better accumulators or conservers of these invisible human assets than some of their close competitors. Moreover, respondents linked some other characteristics, as well, to low fluctuation rates. R4 (C2), for instance, affirmed that some desired attributes of employees – such as dynamism, aggression, entrepreneurial behaviour – depend on low fluctuation rates, and added that some competitors with higher fluctuation rates, particularly in their management teams, have difficulty matching these characteristics.

14.3.3 CONDITIONS OF MODERATE EMPLOYEE FLUCTUATION

Respondents suggested a number of reasons for their respective companies' favourable and controlled levels of workforce turnover: these included less competitive local markets for human talents, favourable firm reputation, favourable working conditions, higher levels of motivation, fewer organizational changes (i.e., restructuring), and a distinct and appropriate firm culture.

Respondents at C2 suggested that firm reputation, employee identification, human resource policy, working conditions, motivation, and location are causes of C2's relatively moderate employee fluctuation. R5 (C2), for example, found that C2's firm reputation has a positive effect on employee fluctuation. Economically, this effect may be interpreted as follows. A distinct firm reputation may provide economic value to employees in the form of increased future earning potential (i.e., when employees enjoy economic benefits in job markets due to the reputation of a past employer). When employees expect increasing returns from an employer's reputation, employees have an incentive to remain loyal. The same respondent further suggested that a pronounced employee-firm identification is an additional reason for the firm's relatively low employee fluctuation. Since employee identification is one of the consequences of a distinct and appropriate firm culture (see Chapter 8), one might infer that culture is an original condition of employee fluctuation.

R4 (C2), on the other hand, suggested that competitors have higher levels of churn in their management teams due to their management rotation philosophy. There are reasons to think that the human resource policies of C2 and its close competitors will remain different in this regard. C2 is a national company and most of its close competitors are large international corporations. These corporations may use job rotation for various reasons, such as preparing their employees for more senior international positions or ensuring the sustainability of their international operations. Such practices seem to come at a price, as R4 suggested: managers come to Switzerland for only a while, and when they leave to assume a job somewhere else, the next manager takes over, without having fully learned from the mistakes of his or her predecessor. By comparison, C2 is able to develop more locally relevant knowledge and experience and does not need to bear the costs of management rotation. This is an advantage.

In contrast to this focus on deliberate policy, R6 (C2) emphasized favourable working conditions (e.g., the team) and motivation as the main reasons for the firm's relatively

low level of employee churn. This respondent also suggested that the firm's location has a positive impact on employee fluctuation: it does not face as competitive a market for human talent as some of its competitors. At the same time, though, the respondent pointed out that the firm is sensitive to employee fluctuation and is keen to keep it under control, especially in regions with competitive job markets.

In case C10, respondents indicated that moderate levels of organizational change have a positive impact on the fluctuation of employees and managers. R24 (C10) pointed out that the stability of the firm's management team (i.e., low fluctuation rates) has contributed to the firm's success, while a close rival had less stable conditions in the past: reorganizations led to problems in the management team and eventually to uncontrolled departures. The same respondent also pointed to a further negative side effect of organizational restructuring: a temporary decrease in market orientation. While this does not directly affect employee-related resources, such as skills, knowledge and experience, it is still important in that it affects the effective deployment of those resources. R24 emphasized that during times of organizational change, firms tend to shift the focus from the market to the firm, with negative consequences on firm performance.

In case C1, too, respondents suggested a link between organizational changes and employee fluctuation. R2 (C1) stated that the firm has experienced a moderate level of organizational changes, whereas some of its close rivals have gone through several episodes of restructuring, leading to unrest and ultimately to the attrition of executives and employees. Finally, R3 (C1) noted that the HR department and line managers are responsible for keeping fluctuation rates of key personnel within a target band.

14.3.4 SUMMARY

In sum, respondents from four cases suggested that their companies' ability to keep the fluctuation of employees and managers under control has a positive impact on firm performance. They suggested that the firm's resources, from employee skills and knowhow to its customer relationships or reputation, are influenced by changes in its workforce, and that this ultimately affects firm performance, making it important to ensure that the employee fluctuation rate stays close to an ideal that is neither too stagnant nor too volatile.

The firm's ability to control employee fluctuation, respondents suggested, depends on a number of conditions, the most important among which are human resource policy, the

competitiveness of local job markets, firm reputation, working conditions and motivation.

By allowing the accumulation of valuable and rare human resources, and by increasing the stability of the workforce in general and work teams in particular and thus promoting the constancy of business operations and business relationships, the ability to control employee fluctuation positively affects competitive advantage.

14.4 LITERATURE

A firm's ability to control employee fluctuation may be classified as an organizational capability or competence. The strategic management oriented RBV literature makes no particular reference to this capability or competence as a source of competitive advantage. However, in the competence perspective, this capability seems to be encompassed in the managerial process to obtain, use, and retain suitable resources to generate economic value and to attain other goals of the firm (Sanchez & Heene, 1997b, 2004). Employees are considered resource providers. Departing from the assumption that resource providers see the firm as a means to realizing their own goals, this perspective suggests that managers need to understand what these goals are, and then design and deliver attractive "value offerings" to these resource providers that help attain their goals (Sanchez & Heene, 2004, 2005). With respect to employees, such value offerings may include, for example, intellectually stimulating work, learning opportunities, the opportunity to identify with the work and/or the company, or flexible work schedules. This perspective also points out that when employees help to develop specialized assets and capabilities that can be effectively used by the firm to generate economic value, their status changes from simple resource providers to stakeholders of the firm with a legitimate claim for a share of the value that these specialized assets or capabilities generate (Sanchez & Heene, 2004). The body of literature focused more specifically on stakeholder management suggests that the alignment of the firm's goals and interests with those of its stakeholders is an important capability with positive implications on firm performance (Ackermann & Eden, 2011b; Coff, 1999; Gottschalg & Zollo, 2007; Harrison, Bosse, & Phillips, 2010; Hillman & Keim, 2001).

A concept closely related to the capability of controlling employee fluctuation appearing in the broader management literature is "employee turnover" (see Griffeth, Hom, & Gaertner, 2000). Employee turnover is a measure of workforce dynamics and refers to the percentage of its average total workforce that a firm replaces over a given period

(typically one year). For example, a turnover rate of 20% means that the firm replaces its entire workforce every five years, or that employees stay with the firm for five years on average. Generally, previous research indicates a negative relationship between employee turnover and performance (Shaw, Duffy, Johnson, & Lockhart, 2005; Shaw, Gupta, & Delery, 2005). Research also suggests that the turnover-performance relationship may vary when different groups of the workforce are taken into account. Siebert and Zubanov (2009), for example, find a negative relationship for full-time workers and an inverted U-shaped relationship for part-time workers in their study of turnover effects on productivity in the retail business in the UK. The link between turnover and performance, they contend, may also be affected by other factors that sometimes are not easily observable or controllable, such as managerial abilities, nature of the economic activity, and other characteristics of the firm's business context.

14.5 INTEGRATIVE DISCUSSION OF FINDINGS AND LITERATURE

The present study suggests that the ability to control employee fluctuation has a positive impact on competitive advantage. The strategic management oriented RBV literature does not make explicit mention of this competence as a source of competitive advantage, but the literature on human resource management and performance has a similar concept, employee turnover (see Griffeth et al., 2000), which is in effect a competence outcome. The reviewed literature on *employee turnover* concentrates on the dynamics of people and not on the effects of human capital resources and costs, which makes it difficult to infer competitive advantage from it.

A high employee turnover rate indicates the erosion of human capital resources (e.g., knowledge, skills) and high HR costs (e.g., hiring, training), while a low turnover rate points to the accumulation of human capital resources. At the same time, however, a low turnover rate may also indicate difficulties in matching HR resources with the firm's goals and competitive environment. Thus, although employee turnover generally seems to imply negative consequences for performance, in some situations employee turnover is beneficial: it can, for example, counterbalance demographic effects (e.g., workforce aging), balance variances in market demand, or replace strategically irrelevant with strategically relevant human resources (e.g., technological knowhow).

14.5.1 EVALUATING VRIN: VALUE

The findings of the present study suggest that it is not employee turnover *per se* but specifically the *ability to control employee fluctuation* that forms the key difference in this

area between competing firms. That is, though employee turnover (as noted above) may in itself have both negative and positive consequences – excessive turnover causing erosion of human resources and exaggerated stability hampering renewal, for instance – the key question is the extent to which the firm is able to control this turnover through such means as avoiding the erosion of valuable human resources that occurs when employees/managers with valuable characteristics (e.g. skills, knowledge, experience, relationships) leave the firm. Put differently, firms with such a competence are simply better conservators of valuable human resources.

14.5.2 EVALUATING VRIN: RARENESS

The study suggests that the ability to control employee fluctuation is rare, since there are important differences among competing firms in terms of human resource policy, competitiveness of local job markets, firm reputation, working conditions, and motivation. To evaluate whether the condition of rareness is fulfilled, one might consider resource immobility and resource supply inelasticity (Peteraf, 1993). The competence appears to be immobile for a number of reasons, including firm specificity (Grant, 1991; Peteraf, 1993), resource interdependencies (Grant, 1991; Peteraf, 1993; Teece, 1986b), cost of information and uncertainty (Grant, 1991; Reed & DeFillippi, 1990), and geographical boundedness (Grant, 1991). Furthermore, the competence seems also to be imperfectly elastic in supply since it involves nontradable resources, such as firm reputation, that need to be developed by the firm over time (Dierickx & Cool, 1989).

14.5.3 EVALUATING VRIN: NON-IMITABILITY

The ability to control workforce fluctuation can be difficult to imitate. A first imitation barrier is *causal ambiguity* (Barney, 1991, 2001a; Dierickx & Cool, 1989; Grant, 1991; Lippman & Rumelt, 1982; Mahoney & Pandian, 1992; Peteraf, 1993). Although the main effects of this competence on firm performance may be readily understood, this information does not suffice to successfully duplicate the competence. A competitor would also need to develop a thorough understanding of the resources involved and of the way that these resources generate the desired level of workforce fluctuation over time. Since the competence potentially draws on a wide range of firm-resources, including managerial skills, firm culture, firm reputation, location, and human resource policies (some of which are invisible), to attract, develop, retain and compensate talented employees, it is rather unlikely that competitors can develop a perfect understanding of them in terms of characteristics and interoperability.

A second barrier is *social complexity* (see Barney, 1991, 2001a; Mahoney & Pandian, 1992). Relationships with employees are at the very heart of this competence, and as these relationships are complex and invisible, they are also difficult for competing firms to understand and replicate.

A third barrier is *asset interconnectedness* (see Dierickx & Cool, 1989). As discussed above, the competence involves a number of other firm resources, such as a favourable firm reputation. In order to reach the same level of control over employee fluctuation, competitors lacking one or more of the interconnected assets would need to develop them first, which can be difficult, time-consuming, and costly.

14.5.4 EVALUATING VRIN: NON-SUBSTITUTABILITY

The possibilities for competitors to replace a distinctive ability to control workforce fluctuation by another strategically equivalent resource or set of resources appear limited. A competitor with an employee fluctuation rate above the ideal may, for instance, use specific employee loyalty schemes to curb the erosion of valuable human resources (see Griffeth et al., 2000) or shift its location to place where job markets are less competitive. Both of these two alternative resource arrangements, however, are associated with costs, and thus represent only imperfect substitutes.

14.6 PROPOSITION

Based on the foregoing discussion, I suggest the following:

> *Proposition 16 – The ability to control employee fluctuation is likely to be a source of sustained competitive advantage if it avoids an unnecessary erosion of valuable human resources or if it minimizes change-related transaction costs.*

14.7 CHAPTER CONCLUSION

This chapter concentrated on *the ability to control employee fluctuation* as a source of competitive advantage. It presented the findings of the study, reviewed the relevant literature, and synthesized the two. It also assessed the resource's potential to provide a sustained competitive advantage based on VRIN criteria, and finally developed conclusions in the form of testable propositions. The study provides strong evidence that *controlling employee fluctuation* is a source of sustained competitive advantage.

In the following chapter, *national reputation* will be presented as the next major finding that elucidates why performance differs among competing firms.

15 FINDINGS AND DISCUSSION: NATIONAL REPUTATION AND SUSTAINED COMPETITIVE ADVANTAGE

15.1 CHAPTER INTRODUCTION

This chapter reports the finding that a *distinctive and favourable national reputation* is a major source of sustained competitive advantage. Several respondents suggested that national reputation added value, since associations between a country and quality products, for example, were often transferred to the association of a brand or company with quality. National reputation is a resource that is potentially practically free for companies to access, but its usefulness as well as the costs involved depend on the strength and credibility of the association between the firm and the country. I argue that an important factor in this credibility is the historical association between the country and the firm/brand; it is this which makes national reputation both rare and difficult to duplicate.

The chapter is organized as follows. It first briefly defines the concept, and then proceeds to reporting the findings of the present study regarding it. As in other chapters, the next item on the agenda is the review of relevant literature; the results of this review are then synthesized with the findings of the study, and RBV logic (VRIN) is made use of to evaluate the potential of the identified resource to provide a sustained competitive advantage. Finally, the chapter develops conclusions in the form of testable propositions.

15.2 DEFINITION

The definition of *national reputation* that has emerged from this study characterizes national reputation as a stock of impressions and experiences that have accumulated over a relatively long period of time; this definition draws on Rindova's definition of *reputation* (Rindova, 1997, p. 189). A related concept is national image; it, too, refers to the perception that customers and other constituencies have about a nation. One dimension that distinguishes the two is the time horizon: as it is usually used, the term national image covers a relatively short time window extending only to the recent past, while national reputation is formed over a longer period extending into historical time.

15.3 FINDINGS

The study suggests that access to a distinctive and favourable national reputation can be a source of sustained competitive advantage because it is valuable, rare, and difficult to imitate and substitute. National reputation may be considered an intangible, firm-external asset that embodies the perceptions of the firm's customers and other constituencies regarding a nation. Respondents suggested that the asset is basically free to use and rare among competing firms.

Assets similar to national reputation include firm reputation and brand reputation. These assets, however, differ in important dimensions, and therefore a separate discussion is accorded to each (for a comprehensive discussion of the differences between them, see Chapter 7 on firm reputation).

The present study indicates that national image or reputation is not equally important for firm performance for all the firms investigated. In four cases (C5, C6, C8, C11), respondents asserted that Switzerland's image and reputation contributes to their firm's performance. In seven other cases (five from Switzerland and two from a neighbouring country), respondents did not explicitly mention national image/reputation as a competitive strength.

The diagram below provides an overview of the concepts related to national image/reputation and competitive advantage. In the following I will describe these concepts in more detail.

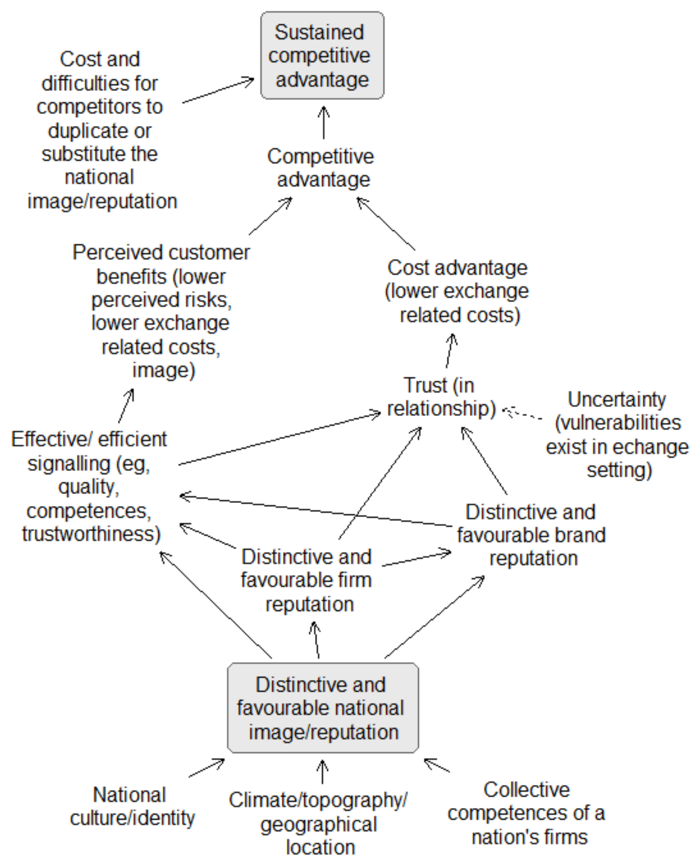

Figure 25: Integrative diagram for "national image/reputation": concepts and their links to sustained competitive advantage

Respondents suggested that there are important differences between Switzerland's image/reputation and the country image/reputation of some of their companies' close competitors in terms of quality, reliability, credibility, repute, honesty, topography, climate, geographical location, and identity in general. Respondents further suggested that there were five benefits associated with the national image/reputation that ultimately contributed to firm performance.

First, national reputation increases perceived quality. Respondents suggested that products from Swiss firms are perceived in a number of markets as being reliable and of high quality. Interestingly, such favourable perceptions cannot be simply ascribed to product quality differentials between developed and less developed countries: respondents emphasized they were present not only in, for example, the economically less developed regions of Asia, but also in highly developed countries like the United States. It seems that in situations where customers have incomplete information about the quality and reliability of a product or service prior to a purchase, they tend to use national image or reputation as a proxy. In other words, they infer the quality of a

product or service from the reputation of the originating country, and this affects their buying decision. Thus, Switzerland's reputation can help a company by effectively signalling quality to customers.

Second, national reputation provides social and other psychological benefits to customers. Thus, respondents in case C11 noted that in the Russian market – one of the firm's export markets for OEM products – country of origin information is an important product attribute. That the product was made in Switzerland affords it an advantage over local products, not only because it is an indicator of quality, but also because it is a symbol of social status in that market. As one respondent from C11 pointed out, customers like to have the "Swiss made" label prominently displayed on the product. Apart from social benefits, a link to Switzerland can also evoke positive feelings (e.g., pleasure at beautiful mountain landscapes).

Third, national reputation/image enhances the brand image. Respondents clearly indicated that there are spillover effects from the country image to the brand image: country-related associations help to differentiate the brand. For instance, R15 (C6) asserted that Switzerland is relatively distinct in a number of dimensions, including topography, climate, and geographical location, all of which provide a wealth of powerful and unique associations for C6's brand. Such country associations can be very strong and credible to consumers if the brand is historically linked to Switzerland. Even if a competitor from abroad were to change the location of its brand to Switzerland, the associations with Switzerland might not be as credible or strong as for a brand with historical roots in Switzerland. In another case (C5), respondents emphasized that some attributes of Switzerland's identity corroborate the brand image, which is an advantage in the United States and particularly in Asia. This point was echoed in case C6, where respondents suggested that customers associate the brand with attributes linked to the nation, such as credibility, reputability, and honesty. Similar positive spillover effects from national to brand reputation for product quality were reported by respondents from C8.

Fourth, a country reputation can enhance a firm's reputation; on this point, too, respondents suggested positive spillover effects. In one case, respondents indicated that national reputation enhances firm reputation in terms of reliability, repute, and honesty. A further positive outcome is the 'echo effect', which means that valuable attributes of firm reputation are reflected in the country reputation; this triangulation seems to

increase the effectiveness of the firm reputation in the marketplace. A strong favourable country reputation may also help Swiss firms to enter and expand in international markets, particularly when the firm’s own reputation in these markets is relatively feeble. In this sense, a national reputation acts as a substitute for a firm reputation. National reputation does not, however, assist all firms equally. The attributes of Switzerland’s reputation may not perfectly correspond with a firm’s aspirational reputation, and may prove irrelevant or even dysfunctional. For instance, associations with dairy products, no matter how positive in themselves, may not be very helpful for firms seeking to establish a firm reputation in the high technology sector.

Finally, a favourable national reputation can decrease signalling costs. As indicated above, a national image or national reputation can be used to signal value. It can to some extent substitute for other signalling efforts (e.g., advertising) or make them more effective (e.g., firm reputation).

Is access to a favourable national reputation, such as that of Switzerland, a rare asset? It is relatively easy for a rival to establish a link to Switzerland by either producing products in Switzerland or sourcing them from Switzerland. A rival firm could then legitimately assert that the product has been made in Switzerland and use this information to differentiate products and services. A further way to associate products with Switzerland would be through marketing communications using symbols, language, artefacts, or images of Switzerland, for example. These two options to access Switzerland's image may be considered an engineered link. In principle, all firms among a set of competing firms can establish such engineered links. Thus, they cannot be considered rare.

Some associations, however, may require more than an engineered link to be credible to customers. For instance, a claim such as “One hundred years of Swiss manufacturing quality” is likely to require a stronger, historically grounded link between the firm and the country. Such a historical link is rare for two reasons: it is relatively inelastic in supply and it is highly immobile. In other words, it cannot be traded in open markets, and it can only emerge from a certain historical background.

Is access to a favourable and rare country image or reputation, such as that of Switzerland, also imperfectly imitable? As indicated above, the credibility of associations with a country of origin may depend on the firm's historical link to that country. Such a historical link is difficult and costly for competitors to imitate. First, a factor market

where such a link could be obtained does not exist (apart from pure M&A), implying that the resource needs to be developed by the firm. Second, the development of a credible historical link to Switzerland is path-dependent, meaning that even when a firm changes its location to Switzerland, the firm's past country locations are still part of its firm-specific history. For instance, a Japanese watch manufacturer changing its location to Switzerland does not become a Swiss watch manufacturer overnight, but will probably continue to be considered a firm with Japanese roots for a long time.

A final option that a competitor might use to gain competitive parity is substitution. In principle, reputational assets such as brand reputation or firm reputation can serve a similar function as a favourable national image/reputation. However, in industries like the watch industry, a substitution is likely to be imperfect. The "Swiss made" label on a Rolex timepiece, for example, is difficult to substitute for. A second reason why such substitution efforts can be considered imperfect is cost: as respondents pointed out, unlike other possible means to enhance reputation, national reputation is a resource available more or less for free. Therefore, it can be argued that a favourable and distinctive national reputation can provide a sustained competitive advantage.

15.4 LITERATURE REVIEW

The RBV suggests that the firm's resource base consists of all resources 'permanently' or 'semi-permanently' attached to the firm (Barney, 2001a; Wernerfelt, 1984). One such resource concerns the image or reputation of the country to which a firm is associated. The strategic management oriented RBV literature does not explicitly mention this resource as a potential source of differential firm performance. Some country-specific resources, like its infrastructure and its education system, are mentioned in, for example, Fahy's (2002) analysis of competitive advantage in an international setting, but national reputation is not among these. The literature does mention a more abstract resource, the firm's location, a physical capital resource (Barney & Clark, 2007, p. 24) that encompasses in the broadest sense everything related to a particular location, including its image and reputation. In general, the literature portrays location as a relatively mobile resource that firms can obtain through corresponding factor markets (Barney, 1986b). If competing firms can gain access to valuable locations at more or less similar costs, such locations cannot be a source of abnormal returns (Peteraf, 1993, p. 185).

As indicated above, in the strategic management oriented RBV literature *national image* and *national reputation* are not explicitly defined terms. Country image and country

reputation may be considered either dimensions of the physical capital resource "location" or separate reputational assets that are intangible, external to the firm, and not directly controllable by a single firm as they embody the perceptions of various constituencies. Furthermore, country image and country reputation seem to share many characteristics of what Itami and Roehl (1987, p. 13) describe as invisible assets, which are both "inputs and outputs of firm activities" that are virtually unlimited in their productive capacity (i.e., in this case, many firms linked to a specific country can concurrently use and shape the country's image and reputation). Although the terms *image* and *reputation* appear to be similar in meaning, and are often used synonymously in the literature, a distinction between the two can be made. According to Rindova (1997, p. 189) both image and reputation are "representations" of an object (such as a country, firm, brand, or product); an image, however, is a temporary and mutable representation, while reputation is an enduring, cognitively more firmly rooted representation that progressively evolves from assembling, selecting, and interpreting images "over time".

Considerable scholarly attention has been paid to image-related "country effects" in fields outside strategic management, including international marketing, international business, and consumer psychology (Peterson & Jolibert, 1995; Pharr, 2005; Verlegh & Steenkamp, 1999). In general, this literature suggests that "country of origin" is a piece of product information that affects consumer decision-making and can help to differentiate products and services in the marketplace (Dichter, 1962; Han & Terpstra, 1988). According to Bannister and Saunders (1978, p. 562), the country-of-origin effect refers to "generalized images created by variables such as representative products, economic and political maturity, historical events and relationships, traditions, industrialization and the degree of technological virtuosity, which will have effects upon consumer attitudes additional to those emanating from the significant elements of the products." As Loo and Davies (2006) amend, the generalized image may be affected by further variables such as a country's people, beliefs, values, and norms.

The country of origin literature indicates a number of effects that may increase a firm's performance. First, a particular country image or reputation can increase the perceived product quality in consumer product evaluations (Peterson & Jolibert, 1995). A "country of origin" functions as a cognitive "cue" for product characteristics that are difficult to observe (Verlegh & Steenkamp, 1999, p. 524); it can, for instance, signal performance, reliability and other attributes of a product that affect quality judgements (Li & Wyer, 1994; Verlegh & Steenkamp, 1999). Second, a country image linked to a product or brand

can provide “symbolic and emotional” values to consumers (Verlegh & Steenkamp, 1999, p. 524), such as identity (Fournier, 1998, p. 350); national pride (Botschen & Hemetsberger, 1998); social status (Batra, Ramaswamy, Alden, Steenkamp, & Ramachander, 2000), imagery (Askegaard, Ger, Englis, & Olofsson, 1998), and memories of past experiences (Botschen & Hemetsberger, 1998).

Finally, a particular country of origin image or reputation can make brands more distinct and credible (Loo & Davies, 2006). Loo and Davies (2006) assert that in a competitive environment characterized by high levels of product resemblance and standardization, successful differentiation of product and services hinges on the distinctiveness of corporate and product brands; one way to create a more distinctive brand image is by associating it with relevant attributes of the nation’s image. These authors furthermore suggest that associations that reflect the strengths of a nation’s economy are relatively credible to consumers.

The literature suggests that a host of variables moderates the relationship between country of origin image and perceived customer value. Reviewing empirical research published between 1995 and 2005, Pharr (2005) finds that product-related variables such as “brand name”, “product type”, “product complexity”, and “price” as well as consumer-related variables such as “involvement level”, “involvement type”, “product familiarity”, and “product importance” can have moderating effects on the extent to which national image influences perceived customer value. A further consumer-related moderator appears to consist of the consumer’s moral views. Verlegh and Steenkamp (1999) suggest that preference for a product declines if consumers belief the conduct of the product’s originating country is below their moral standards and principles. Likewise, Shimp and Sharma (1987) suggest that the preference for foreign products may be low if consumers are “econcentric”, that is, if they believe that buying non-domestic products is immoral. A further, perhaps counterintuitive, finding of Verlegh and Steenkamp’s (1999) study is that the country-of-origin effect is of roughly equal size for end customers as for business customers, implying that the variable “customer type” is relatively unimportant in determining these effects.

Overall, then, the literature seems to suggest that access to a favourable country image or reputation can be a valuable asset to the firm. However, the literature does not explicitly indicate whether access to valuable national image or reputation is also rare

among a set of competing firms, nor to what extent this resource can be considered difficult to imitate.

15.5 INTEGRATIVE DISCUSSION OF FINDINGS AND LITERATURE

The verdict of the literature regarding the capacity of national reputation to affect competitive advantage is slightly ambiguous. While the RBV literature makes no specific mention of national reputation as a source of competitive advantage, it does consider another resource, firm location – a very broad resource encompassing everything related to a particular location, including reputation. This the literature portrays as relatively mobile, indicating that it cannot be a source of competitive advantage. However, the fields that have carried out more studies of country effects – fields like international marketing, international business, and consumer psychology – country of origin is characterized as an attribute that does influence consumer decision-making and make brands more credible (for references, see the literature review in Section 15.4).

The present study falls on the side of emphasizing the significance of national reputation, and suggests that a strong link to an appropriate and distinctive national reputation is a source of sustained competitive advantage – that is, it is valuable, rare, difficult to imitate, and non-substitutable. In the following, I will consider each of these in greater detail.

15.5.1 EVALUATING VRIN: VALUE

In order to be considered a source of sustained competitive advantage, a firm resource must be *valuable* to the firm (Barney, 1991). Access to an *appropriate and distinctive national image/reputation* meets that criterion. In the present study, respondents from four cases suggested that Switzerland's image and reputation has a positive impact on their performance. Common to all of these cases is that they have a historical link to Switzerland and that they operate in international markets. In the other eight cases, respondents did not mention that the link to a particular national image or reputation is a competitive strength; this may be due to omission, or more likely, to respondents viewing this resource as less important than other firm resources in explaining firm performance.

The data of the present study as well as the country of origin literature indicate that a favourable national image/reputation has a positive impact on firm performance through five distinct avenues: increasing perceived quality, providing social and psychological benefits to customers, enhancing brand image, enhancing firm reputation,

and decreasing signalling costs. Each of these was discussed at some length in the section on findings. The following offers brief syntheses of the findings of the study and the relevant literature on each.

Perceived quality: In the present study, respondents suggested that customers in all markets – in undeveloped as well as developed countries – associate Switzerland with high quality, and use this national reputation as a proxy when assessing the quality of products and services about which they have imperfect information. This finding is consistent with the country of origin literature, which suggests that a country's reputation for quality can increase the perceived product quality in consumer product evaluations (Peterson & Jolibert, 1995). A "country of origin" can signal difficult-to-observe product characteristics, such as performance or reliability (Li & Wyer, 1994; Verlegh & Steenkamp, 1999).

Social and psychological benefits: Respondents noted that especially in particular markets, such as the Russian one, Swiss products have a high status as well as a reputation for quality, and this gives Swiss products an advantage in that market. The country of origin literature supports this finding, noting that a country image can endow products or brands with a range of intangible benefits from boosting social status to evoking happy memories of past experiences (for details and references, see the literature review in Section 15.4).

Brand image: Respondents clearly indicated that there are spillover effects from the country image to the brand image, and country-related associations help to differentiate the brand. In the case of Switzerland, these associations are powerfully linked to a particular topography and climate invested with emotional dimensions, and customers find these associational linkages credible for brands historically connected to Switzerland. Such positive associations, respondents noted, are particularly strong and valuable in the United States and in Asia. These study findings appear to be consistent with the literature, which suggests that a particular country of origin image or reputation can make brands more distinct and credible (Loo & Davies, 2006).

Country reputation: Again, respondents suggested positive spillover effects from country to firm reputation, for example, in the dimensions reliability and honesty. Such associations are further strengthened by the echo effect: a firm may benefit from a national reputation for quality, and that firm's establishing a reputation for quality for itself will feed back into the national reputation for quality, further strengthening it.

Nevertheless, since a country reputation will emphasize some qualities and associations over others, it may benefit some firms more than others, so that while a strong national association with dairy products may help a dairy producer, it may be irrelevant or even counterproductive for a high technology firm. The link between national image/reputation and firm reputation has not been specifically mentioned in the reviewed literature, and appears to be a new finding of the present study.

Signalling costs: Since a national reputation can signal value, and since association with it is practically free, it can to some extent decrease signalling costs by replacing other more costly forms of signalling like advertising. Effective signalling of quality can also reduce perceived uncertainty in an exchange and thus lower transaction related costs. As one respondent noted, some of the firm's Asian competitors find it difficult to position themselves as reliable suppliers: they are neither established in their own right nor can they draw on a national reputation to help them signal quality and thus reduce customer uncertainty.

These effects are to some extent moderated by a number of variables related to both products and consumers, several of which have been noted in the country of origin literature (for details and references, see the literature review section). The present study, however, indicates a further important moderating variable: the strength of the link between a country image/reputation and a firm or brand. I argue that in order to be credible to customers, some country associations require a historical link between the firm or brand and the country.

Conceptually, I distinguish between weak, semi-strong, and strong links between a country and a brand/firm. A weak link can be created by associating a product with a foreign country through marketing. For example, a foreign dairy producer may associate a product with Switzerland by emphasizing that the product is based on a traditional Swiss recipe. A semi-strong link, in contrast, can be established by producing in or sourcing from a particular country: this would, for example, involve a foreign dairy firm sourcing its product from Switzerland, increasing the array of possible associations with Switzerland, and, more importantly, enhancing the credibility of those associations. Finally, a strong link represents a historical link between the product country of origin and the firm's home country, something that is almost impossible for foreign firms to establish. Staying with the example of the dairy firm, only a firm with historical roots in

Switzerland could lay claim to a credible association with the Swiss tradition of making a particular product.

15.5.2 Evaluating VRIN: Rareness

In order to be considered a source of competitive advantage, access to an appropriate and distinctive country reputation needs to be rare. A weak link to a favourable country reputation, as indicated above, is established through marketing, and thus is not likely to be rare among a set of competing firms. A semi-strong link to a favourable country reputation, on the other hand, can be obtained through sourcing or producing goods in the corresponding country, or in economic terms, it can be obtained through factor markets. To the extent that such factor markets exist and operate efficiently, all firms of a set of competing firms may access that resource, affording none an advantage. A strong link to a favourable country reputation, in contrast to the former two, is based on a historical link between a country and a firm (or a brand). Such a historical link appears to be highly immobile and relatively fixed in supply – and cannot be acquired through factor markets. Thus, a strong link to a favourable country reputation is probably a resource that is not evenly distributed among a set of competing firms.

15.5.3 Evaluating VRIN: Inimitability

I proceed on the assumption that the credibility of a firm's or brand's association with the qualities of a country of origin may depend on a firm's or brand's historical link to that country. As for rareness, the different strength levels of the linkage between national and brand/company reputation are relevant to assessing the imitability of the resource. Since a weak link to a favourable country reputation can be duplicated through marketing, it is at best a source of competitive parity. Likewise, a semi-strong link to a favourable reputation can be duplicated by producing or sourcing internationally, which suggest that this level of linkage, too, is only a source of competitive parity. By contrast, a strong link to a favourable reputation, based on a historical link between a country and a firm or a brand, is path-dependent and hence virtually impossible to duplicate. For example, a Korean firm relocating to Switzerland does not become a Swiss firm overnight; customers may still perceive it as a firm with Korean roots. Obviously, a competitor could use weak or semi-strong links to substitute for a strong link to a favourable country reputation; this, however, is relatively costly and still imperfect.

15.5.4 EVALUATING VRIN: NON-SUBSTITUTABILITY

To confer competitive advantage over an extended period, a national reputation needs to be difficult to replace with strategically equivalent resources. As already discussed in previous chapters, functionally similar firm resources, including firm reputation and brand reputation, do exist. These resources are, however, not perfect substitutes in terms of cost and functionality. First, as discussed above, a distinctive national reputation can be used in ways that have distinctive outcomes (e.g., positive emotions). Second, a distinctive national reputation can be accessed at a relatively low cost (for firms with a strong link). Furthermore, the costs of maintaining a national reputation are relatively moderate for a firm, as these costs are spread across a larger group of firms and institutions within a nation.

15.6 PROPOSITIONS

Thus, I suggest the following:

> *Proposition 17 – A weak (marketing) link to a distinctive and favourable national reputation is a source of competitive parity.*

> *Proposition 18 – A semi-strong (production, sourcing) link to a distinctive and favourable national reputation is a source of competitive parity.*

> *Proposition 19 – A strong (historical) link to a distinctive and favourable national reputation is a source of sustained competitive advantage.*

15.7 CHAPTER CONCLUSION

This chapter concentrated on the resource *national reputation* as a source of competitive advantage. It presented the findings of the study, reviewed relevant literature, and synthesized the findings with the literature. It also assessed the resource's potential to provide a sustained competitive advantage based on VRIN criteria, and finally developed conclusions in the form of testable propositions. The study provides empirical support for the claim that a *national reputation* is a source of sustained competitive advantage.

The next chapter moves on to the discussion of the special findings, that is, findings that appeared in a limited number of cases or appear to be related to particular contexts.

16 SPECIAL FINDINGS

16.1 CHAPTER INTRODUCTION

This chapter focuses on the special findings, which are potential sources of competitive advantage particular to only a few cases and that may be tentatively thought of as specific to particular contexts. These findings relate primarily to marketing and sales capabilities.

The study indicates that capability differentials among competing firms may be found at two levels. On an abstract level, there may be differences in terms of speed, efficiency, and comprehensiveness that confer competitive advantage. On a detailed level, there are eight different, more specific capabilities that can provide a competitive advantage. More precisely, these capabilities may (1) increase the differentiation of products and services, (2) increase the availability of products and services, and (3) reduce economic cost. The study also suggests that the capabilities are not homogenously distributed among the investigated firms and may vary in their nature from firm to firm. The diagram below provides an overview of these concepts and their links to competitive advantage.

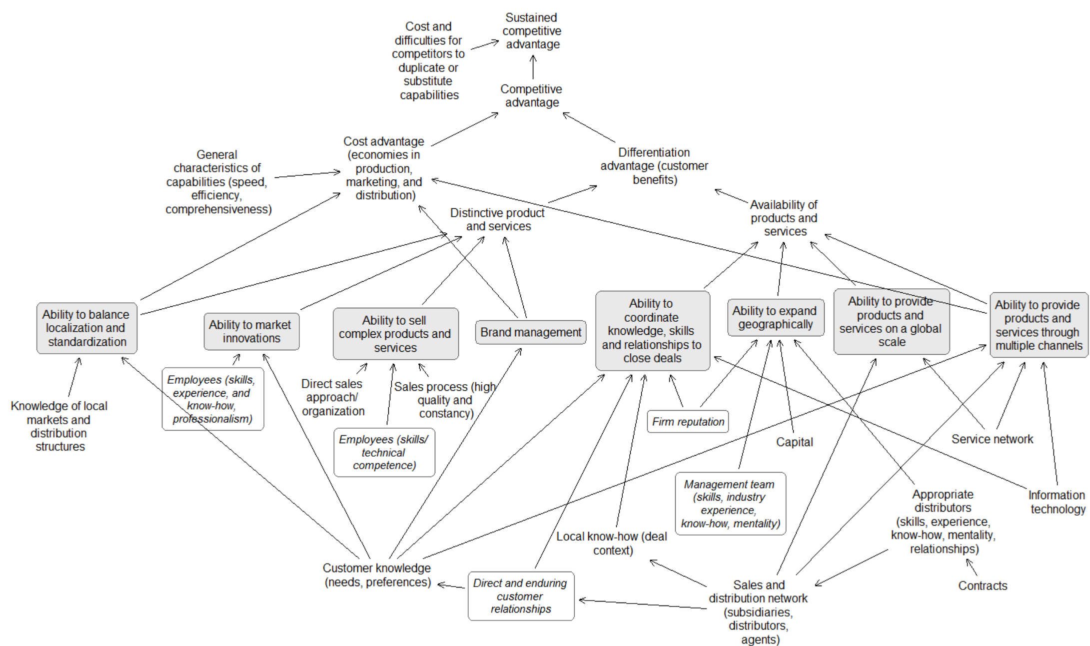

Figure 26: Integrative diagram for "marketing and sales related capabilities": concepts and their links to sustained competitive advantage

In the following sections, I will describe these capability differentials in more detail.

16.2 GENERAL CAPABILITY ATTRIBUTES

Respondents suggested that general capability attributes, such as speed, efficiency, and comprehensiveness, provide important advantages over competing firms.

16.2.1 SPEED

In case C11, respondents suggested that *speed* in the firm's R&D, production, and marketing is a competitive strength and a major contributor to firm performance. This general attribute seems to be associated with C11's relatively lean processes and organization structure, its distinctive firm culture, and its efficient decision making routines. The effects of speed on firm performance can be interpreted as follows. Speed means that the time required for the completion of a process or a set of interrelated activities is relatively short. A short duration indicates earlier completion time, which can confer first-mover advantages on the firm. Marketing-related first-mover advantages may include, for instance, pre-empting relevant sales channels, building relationships with early adopters, or building a reputation as an innovation leader. On an operational level, speedier processes can also offer greater benefits for customers: customers may, for example, benefit from shorter response times to requests or from savings in transaction time. Of course, whether decreasing the transaction time increases perceived customer benefits may depend on a number of factors, including the type of product or service, the level of customer involvement, and even the nature of the process. By way of an example, in the entertainment business, a customer may value an expedited ticket purchasing process, but not value a reduction in the length of the actual performance, such as a theatre play. In addition, higher speed does not necessarily imply higher efficiency, since compressing time can also result in diseconomies and hence higher costs for the firm. For example, cutting the product development cycle by half may cause substantially higher costs than simply those associated with doubling the head count of the research and development department. Hence, it is not speed *per se*, but an appropriate level of speed – considering business opportunities and costs – that contributes to firm performance.

16.2.2 EFFICIENCY

A second general capability attribute, particularly emphasized by respondents from C11, is *efficiency*. Efficiency can be understood as the ratio between the economic value of outputs and the economic value of inputs. The higher the ratio, the higher the returns for the firm. There are multiple factors that can affect efficiency. Higher than normal

efficiency levels, as indicated by respondents of C11, seem to be linked to a set of distinctive resources, including firm culture, firm structure, decision making routines, and employee skills.

16.2.3 COMPREHENSIVENESS

Comprehensiveness is another capability attribute associated with competitive advantage. A good example of this attribute is C7. Respondents from C7 suggested that their company's relatively comprehensive capabilities in marketing and distribution are a competitive strength. They described their industry sector as being traditional, rather product management oriented, and not fast moving or emotional. Respondents suggested that compared to close competitors, the firm performs relatively well against the success factors of their industry, including visibility at large exhibitions, appropriate communication plans, corporate identity, corporate design, and market coverage. R16 (C7) pointed out that in addition to these, fair and appropriate marketing practices are essential. From a management perspective, fairness may interpreted in this context as the firm's ability to balance the interests of relevant stakeholders (i.e., the firm, customers and distribution partners), to set clear expectations, and to live up to these expectations. From an economic, more transaction-oriented perspective, fairness may be understood as a situation in which the firm does not exploit the vulnerabilities of other exchange partners (e.g., customers, distribution partners). Fairness can contribute to a positive reputation, which then increases trust. Trust, in turn, can reduce the cost of future transactions, since it avoids having to establish other costly exchange governance mechanisms. For a more detailed discussion of relationships and the role of trust, see Chapter 12.

16.3 BRAND MANAGEMENT

Respondents from a number of cases (particularly C6, C5, and C2 – all operating in consumer markets) suggested that for their firms, brand management represents a competitive strength. Respondents suggested a set of dimensions in which their firms' brand management differs from the brand management of close competitors.

16.3.1 KEY PRODUCTS BASED ON DISTINCTIVE COMPETENCES AND TRADITION

The first dimension in brand management relates to the firm's competences. Respondents from C6 pointed out that some of their firm's products depend on core competences and a very long tradition, which is an enormous advantage in brand management. R15 (C6) suggested that the firm can increase global brand awareness

through these products. In other words, the *core competence* leads to distinctive products, which in turn allow the firm to increase brand awareness more economically, and perhaps faster, than with more conventional products.

16.3.2 CUSTOMER SEGMENT FOCUS

Another aspect in brand management concerns segment focus. Respondents suggested that a clear customer segment focus is important in creating and maintaining a distinctive brand image. Respondents from C6, for example, explained that they concentrate on the customer segment that has the most demanding requirements in terms of product quality and reliability. This focus in turn supports a brand image of exclusivity and competence, two dimensions that seem to be valuable to their target customers. Although it may be tempting to increase sales by expanding into more mainstream segments, respondents clearly believed that such an approach would dilute the brand image, and consequently negatively affect long-term firm performance. This focus also implies, as respondents noted, that the brand is less well known to other consumer segments, such as the "man on the street".

The case of C6 illustrates that there are subtle links between creating and exploiting the asset brand image/reputation. All this suggests that understanding the structures and dynamics in developing and deploying the brand image/reputation, and making optimal decisions with regard to development paths, are fundamental and performance-relevant dimensions of brand management.

16.3.3 CREATIVITY IN MARKETING COMMUNICATION

A further dimension in brand management that can differ among competing firms is creativity in marketing communication. Respondents from C6, for example, suggested that their *creativity* is an advantage. According to R15 (C6) the firm seeks not only to differentiate its brands and products but also stand out in terms of marketing communication. These creative approaches, respondents from C6 stated, positively influence marketing efficiency and effectiveness.

16.3.4 POSITIONING SKILLS

A further dimension in brand management concerns positioning skills. R5 (C2) suggested that brand performance critically depends on the firm's ability to penetrate the brand position in the marketplace. According to C2's respondents, the firm has been successful in developing a distinctive brand reputation by emphasizing scarce attributes that are important for customers, such as freshness, provenance of ingredients, origin,

and tradition. Respondents from C2 suggested that their firm enjoys an advantage as long as some of the brands of its close competitors have a diffuse or insufficiently differentiated position.

16.3.5 DISTINCTIVE BRAND CONCEPT

Yet another dimension of brand management concerns the development of a distinctive brand concept. R12 (C5) suggested that a brand requires a concept that induces or satisfies customer needs, and for upscale luxury products, ideally a mystical element (see also Chapter 9 for further discussion of cult brands).

The importance of a mystical element may be interpreted as follows. A mystical element may be used to differentiate a brand image on the non-functional side. An association with a mystical element may increase the brand's ability to provide greater customer benefits in terms of a more in-depth emotional response or a more satisfying experience. A mystical element may also make the brand more interesting to write and talk about. In other words, it spurs responses in the form of word of mouth communication and publicity in the media.

Apart from an appropriate brand concept, R13 (C5) suggested that brand management also requires a credible brand story. In case C5, respondents suggested that much of the firm's brand story is constructed around the firm's distinctive history. R13 pointed out that a story plays an important role in consumer decision making – it tells the consumer what brand to choose from the sea of possible alternatives. Despite the importance of the brand story, not all companies possess one: as R13 observed, many of C5's competitors have no comprehensive story to tell.

16.3.6 DISCIPLINED OPERATIONALIZATION OF THE BRAND CONCEPT

A further dimension of brand management is the disciplined operationalization of the brand concepts. R13 (C5) pointed out that a strong market position is the result not only of differentiating attributes but also of a relatively disciplined brand management, and suggested that brand management requires consistency in verbal and nonverbal communication. Non-verbal communication includes, for instance, the behaviour of sales staff or the atmosphere in sales stores. R13 contended that consumers are sensitive to information, and that therefore developing and fortifying a brand image requires always communicating the same message. Inconsistencies and frequent changes in communications, R13 noted, have negative implications, as the histories of some brands clearly indicate – brand awareness may decline and the brand image may become

diluted. Regaining a clear brand position, according to R13, can be very difficult, especially if the brand has been frequently altered in the past or if some of the brand's attributes are particular sticky. The danger, R13 stated, is that when the brand is not particularly successful, one is tempted to change things with the intent of improving them – but the more one tries, the more diffuse the image that one communicates to the outside becomes. This respondent was convinced that C5's brand is successful because the firm has communicated the same message since the beginning and because its team lives the brand image in every detail.

In a similar vein, respondents from C2 suggested that one of their firm's advantages in brand management is *consistency* in marketing communications. R5 (C2) argued that developing a brand requires continuity – sudden or frequent changes in the position are detrimental for a brand. As this respondent put it, "if you start to narrate something different, you start from scratch." At the same time, though, R5 expressed the belief that smooth modifications are necessary to keep the brand up to date.

16.3.7 SELF-REINFORCING FEEDBACK STRUCTURES

Another dimension in brand management refers to the knowhow and skills required in creating and maintaining marketing system with positive feedback structures, such as word of mouth communication. This may be illustrated by the brand of C5, which has reached, according to respondents, cult status. A cult status may be described as a situation in which one or more social groups (e.g. consumers, users, influencers) have a strong, near-religious, emotional engagement with the brand.

These social groups affect firm performance in a number of ways. First, members of these social groups may comprise a loyal customer base, which implies lower marketing costs. Second, these social groups (e.g., celebrities) may generate positive associations that support the development of a distinctive brand image/reputation. And third, these social groups may stimulate consumer word of mouth and media publicity, which in turn increases the number of customers.

One consequence out of this is that the brand requires much less spending on advertising to create brand awareness in the market place. Respondents from C5 stated that their firm's knowhow in managing cult brands distinguishes it from other firms, and suggested that much of this knowhow is tacit and contextually bound and thus rather difficult to replicate.

16.4 BALANCING LOCALIZATION AND STANDARDIZATION

The ability to balance the requirements for local market needs and product standardization is a potential source of competitive advantage. In case C4, respondents suggested that market structures and customer needs, perhaps with some exceptions, are not homogeneous around the globe, meaning that firms that operate multinationally need to adapt their sales approaches and products accordingly. R10 (C4) noted that firms with an insufficient or incorrect understanding of local differences and a bias towards universal product concepts will not succeed in multinational markets. R10 added that C4 does business differently in Europe than in the Americas, for example, for the very reason that customer requirements and distribution structures are not the same. Although using a standardized approach for expansion is desirable, it is thus only possible to a limited extent. R10 also remarked that the strategy literature suggests standardization to achieve cost leadership – but that there in fact exists no comprehensive theory of how to achieve cost leadership in heterogeneous markets.

Thus, a distinctive ability to adapt sales approaches and products to local conditions while keeping standardization levels high may provide the firm with advantages over competing firms.

16.5 EXPANDING INTO NEW GEOGRAPHICAL MARKETS

Respondents at C9 suggested that their firm's ability to expand into international markets is a competitive strength. R20 (C9) stated that firms do not differ much in terms of international expansion strategy. According to R20, there are essentially two entry modes: direct and indirect. The direct entry mode consists of the firm establishing its own subsidiaries, while the indirect mode involves going through dealers or existing distribution channels. Typically, the firm selects a direct mode for attractive markets (i.e., markets with strategic importance, growth potential, and reasonable entry costs) and an indirect mode for less attractive ones. Firms tend then to change from an indirect to a direct form when the business in the area becomes more extensive and attractive, and when the firm has more funds. This approach, R20 contended, is widely used not only in the industry of which C9 is a part but also in other industries. Although competing firms use similar expansion strategies, respondents suggested that their firm's ability to expand into new geographical markets is a competitive strength. C9 has sufficient capital as well as the relevant knowhow, industry experience, and skills to recruit competent people with a suitable mindset in new geographical regions.

As R20 explained, in some regions C9 has been lucky in making contracts with established distributors that recently terminated distribution mandates with competitors. Through these contracts, the firm gained access to resources that are valuable for its expansion strategy, such as sales and distribution infrastructure, customer relationships, knowledge and skills of employees, and reputation. Distributors with an appropriate set of capabilities and resources are rather rare. It is particularly difficult, according to R20, to find distributors with appropriate employee skills and a similar mindset as that prevailing at the firm itself.

From a resource-based perspective, there are two resources involved here that potentially provide a competitive advantage. The first – expanding into new geographical markets – is a distinctive capability that is rather difficult to imitate. First, it involves other firm resources, such as knowhow and industry experience, which by themselves may be relatively unique (see Chapter 10). Second, the characteristics of the capability and how these are linked to firm performance may be opaque and difficult to specify. Finally, the capability involves working relationships between individuals and teams in the firm that may be rather complex and difficult to discern. Consequently, the firm may enjoy a long-lasting advantage over competing firms.

The second resource, contracts with distribution partners, gives the firm access to valuable and possibly rare resources to implement an expansion strategy. A central question is the price at which such resources can be obtained. If resource markets for such distribution contracts are more or less efficient, a firm may not be able to extract superior returns, since all future benefits are reflected in the resource's market price.

This was not the case for C9: rather, respondents pointed to imperfect market conditions, in which it was possible for the firm to obtain favourable contracts with distribution partners. Such contractual agreements, however, may be subject to renegotiation in subsequent periods, which may eliminate rents stemming from imperfectly informed partners. In other words, if the true value of a contract becomes reflected in its price, that contract cannot be a source of superior firm performance.

16.6 SELLING PRODUCTS AND SERVICES WITH A COMPLEX VALUE PROPOSITION

Respondents at C3 suggested that the value proposition contained in their firm's marketing is more complex than that of the firm's competitors. Respondents indicated

that C3 has transformed its products into service products that help customers to increase their operational efficiency. Respondents also suggested that selling these products and services requires technically competent employees and direct interaction with customers. Competitors without a similar level of technical competence or without a direct sales organization would consequently not be able to replicate C3's strategy. In other words, the ability to sell products and services with a complex value proposition is a competitive strength.

16.7 COORDINATING KNOWLEDGE, SKILLS AND RELATIONSHIPS TO CLOSE DEALS

The ability to coordinate knowledge, skills and relationships has been mentioned as a competitive strength and contributor to firm performance. In case C1, respondents suggested that C1 has a global sales and service network that gives it an advantage with respect to its rivals of equal or smaller size. R2 (C1) explained that this network of subsidiaries and agents provides important local knowhow. The interplay between these organizational units is an advantage in building relationships, managing knowledge and closing deals. R2 further considered that through its global presence, C1 can provide services locally in the local language, which in turn increases the benefits for customers.

Respondents from C1 also pointed out that the focus of the sales and service network on a particular product category is an advantage. One possible interpretation of this focus effect is that it allows the firm to develop relevant intangible assets – including knowhow, skills, routines, and reputation – more efficiently than more diversified competitors are able to do. In other words, the focus increases the level of efficiency and competence within the network.

16.8 MARKETING OF INNOVATIONS

Respondents from C5 and C9 suggested that inventions alone are not a sufficient condition for firm success: success also calls for appropriate marketing capabilities to commercialize inventions.

Respondents at C5 suggested that the firm's ability to market innovations is a competitive strength. R13 (C5) pointed out that the way innovations are brought to market significantly influences firm success, and argued that the activities in commercializing inventions need to be well coordinated and executed at an appropriate level of professionalism and efficiency in order to achieve exceptional results.

In the case of C9, respondents also seemed to suggest that the ability to market innovations gives them an advantage over close competitors.

From a resource-based perspective, an invention may be considered a distinctive asset that requires an appropriate marketing capability to turn it into an innovation (successful commercialization of an invention). Thus, an appropriate marketing capability contributes to firm performance in that it helps (a) to exploit an invention fully (commercialization; realization of first-mover advantages) and (b) to protect the innovation from competitive imitation (e.g., by establishing appropriate imitation barriers such as asset mass efficiencies).

Innovation capability as a potential source of competitive advantage is discussed in detail in Chapter 13.

16.9 PROVIDING PRODUCTS AND SERVICES ON A GLOBAL SCALE

Respondents from C3 suggested that compared to some close competitors, their firm has a greater market reach – it has a global presence. This means that the firm has a larger sales, distribution and service network than its close competitors. R7 (C3) noted that C3 is thus able to provide standardized products and services on global scale, which is a benefit for multinational customers. One possible interpretation of that benefit is that multinational customers can reduce, for example, the number of supplier relationships (lower administrative costs), decrease the variability of purchased products (e.g. lower appropriation, inventory, and training cost), and increase operational flexibility (e.g. production location may be changed without the need to change suppliers). Competitors with a limited geographical scope – typically smaller, more local operating competitors – are consequently not able to provide similar value to this particular customer segment.

16.10 PROVIDING PRODUCTS AND SERVICES THROUGH MULTIPLE CHANNELS

Respondents from C3 suggested that the firm's ability to provide sales and services through multiple channels – including a sales force, local branches, customer service at the head office, and e-business – is an advantage over competitors with fewer channels. Some of C3's competitors have, for example, only sales representatives. R8 (C3) suggested that appropriate channels have a number of benefits for the firm and customers. First, the firm can increase the availability of their products and services and reduce costs by shifting particular transactions to low cost channels such as the internet.

Second, the higher availability of products can afford customers important benefits in their supply chain process such as increased flexibility, speed, and efficiency.

16.11 CHAPTER CONCLUSION

On the whole, then, there are a whole slew of capabilities that, though they may be relevant only under specific circumstances, are important sources of competitive advantage. As the preceding sections have outlined, some such capabilities stem from general attributes like the ability to perform all business processes from development to marketing with speed and efficiency and the possession of a comprehensive range of capacities that covers all the necessary bases of conducting a successful firm in the particular industry. Others, though, mark achievements in more specific domains, especially in the differentiation and availability of products and services and the controlling and reduction of economic costs.

Although integrating and contrasting these findings with the extant RBV literature (as was done for the main findings presented in the preceding chapters) is beyond the scope of the present work, this omission should not be taken to imply that these findings are less important for explaining competitive advantage for a particular firm. The ability to manage a brand effectively and skilfully, for example, is of obvious significance to a firm's performance, particularly when that firm produces for or sells to the consumer market. Similarly, adroitness in commercializing an innovation is not necessarily any less significant than innovation capability itself: it is not difficult to imagine a situation where a dazzling but clumsily commercialized invention contributed nothing to a firm's competitive advantage. In other words, it is probable that these findings appear in a limited number of cases not because they are insignificant but because they are significant in particular contexts: balancing the dual requirement of local market offerings and standardization, for instance, may not be a primary concern for most firms, but it may be vital indeed for multinational firms.

This chapter concludes the discussion of the findings of the study. The next chapter summarizes the findings in the form of a graphical representation of the main concepts discussed in the findings chapters, indicating how these concepts are related to each other.

17 FINDINGS SUMMARY: MAIN CONCEPTS AND LINKS BETWEEN CONCEPTS

This chapter presents diagrams indicating the main concepts and links between these concepts. The main concepts are shown as rectangles with a light grey background. The related concepts are shown as rectangles with a white background and italicized font. The links between concepts are indicated as bold arrows.

17.1 MAIN FINDINGS

17.1.1 FIRM REPUTATION

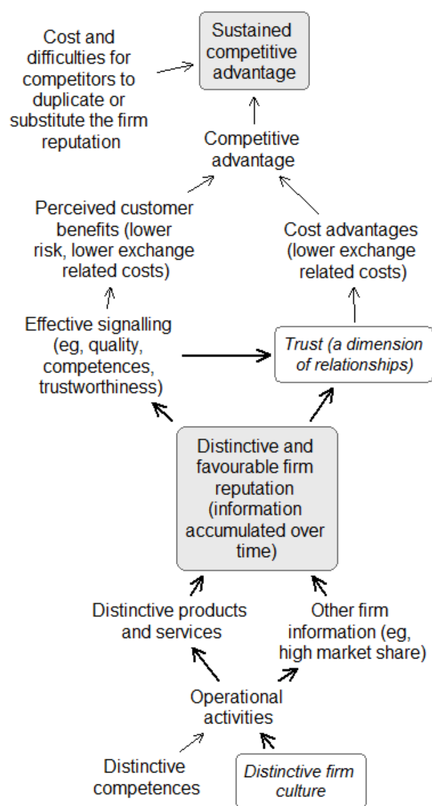

Figure 27: Firm reputation: related concepts and main links

17.1.2 FIRM CULTURE

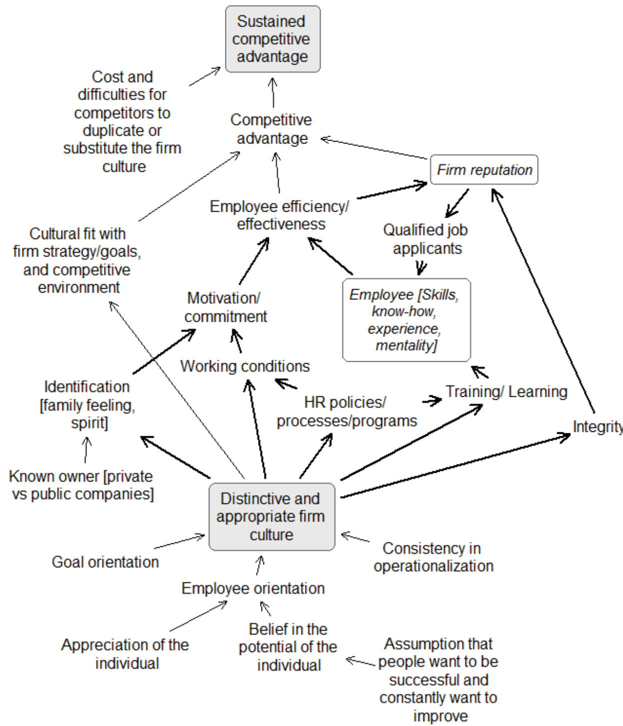

Figure 28: Firm culture: related concepts and main links

17.1.3 BRAND REPUTATION

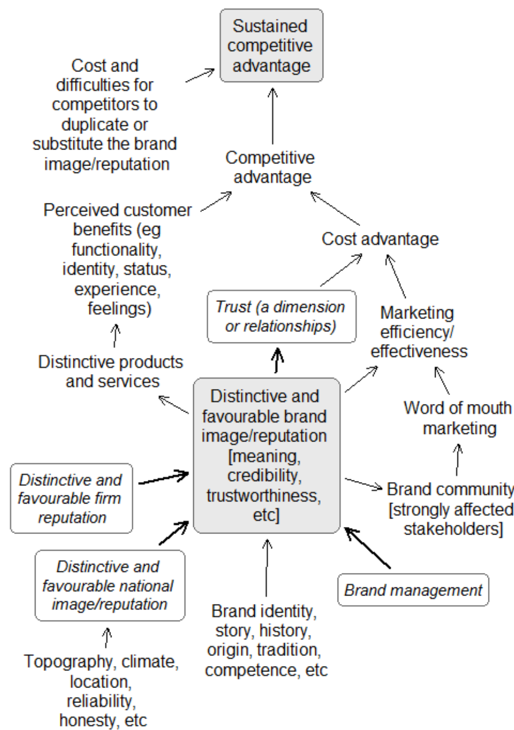

Figure 29: Brand reputation: related concepts and main links

17.1.4 MANAGEMENT TEAM

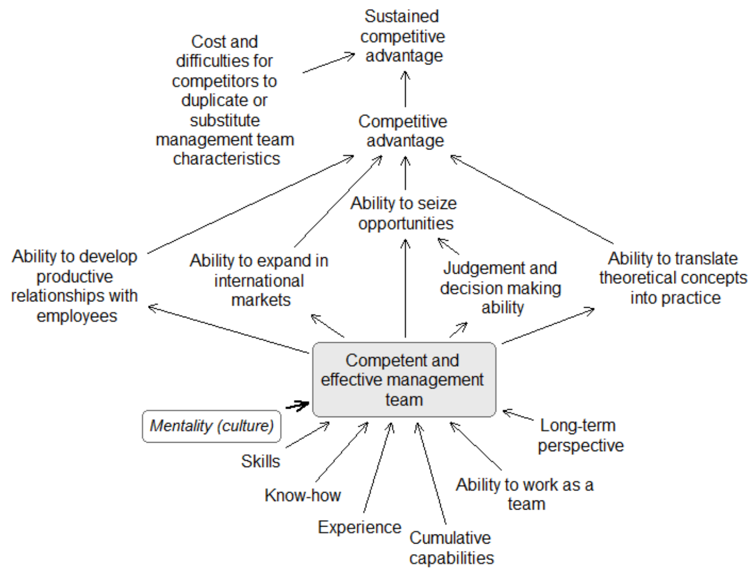

Figure 30: Management team: related concepts and main links

17.1.5 EMPLOYEES

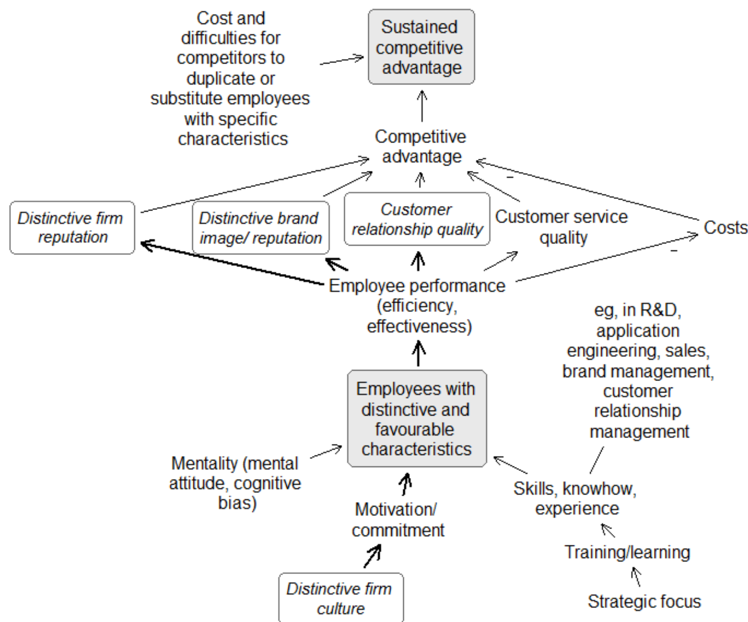

Figure 31: Employees: related concepts and main links

17.1.6 RELATIONSHIPS

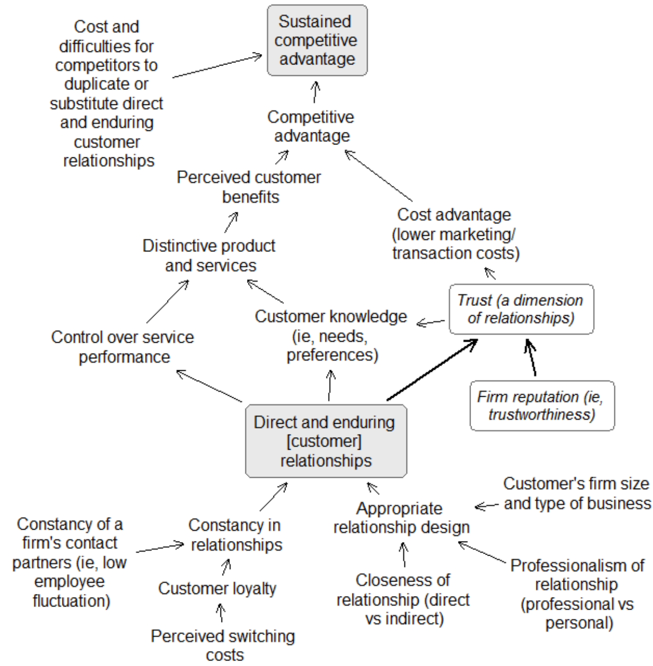

Figure 32: Relationships: related concepts and main links

17.1.7 INNOVATION CAPABILITY

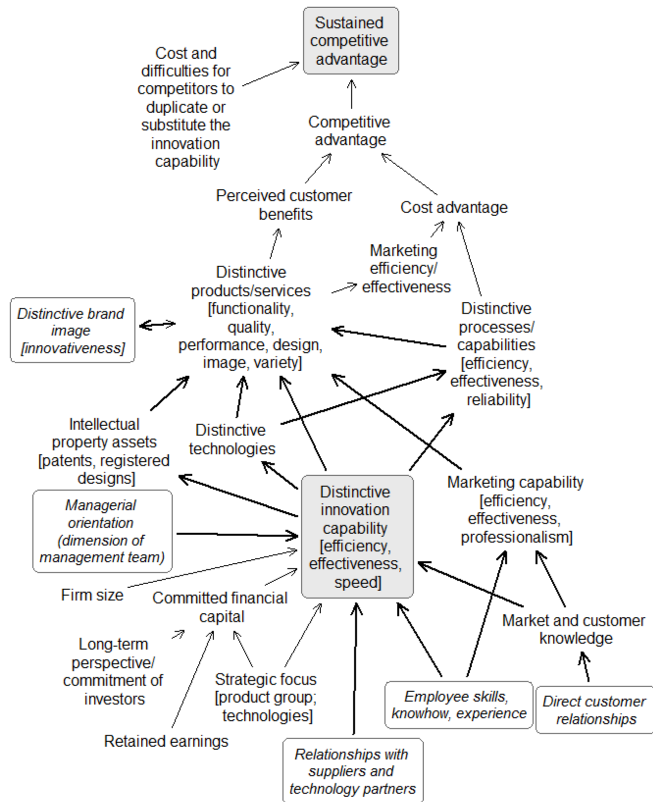

Figure 33: Innovation capability: related concepts and main links

17.1.8 ABILITY TO CONTROL EMPLOYEE FLUCTUATION

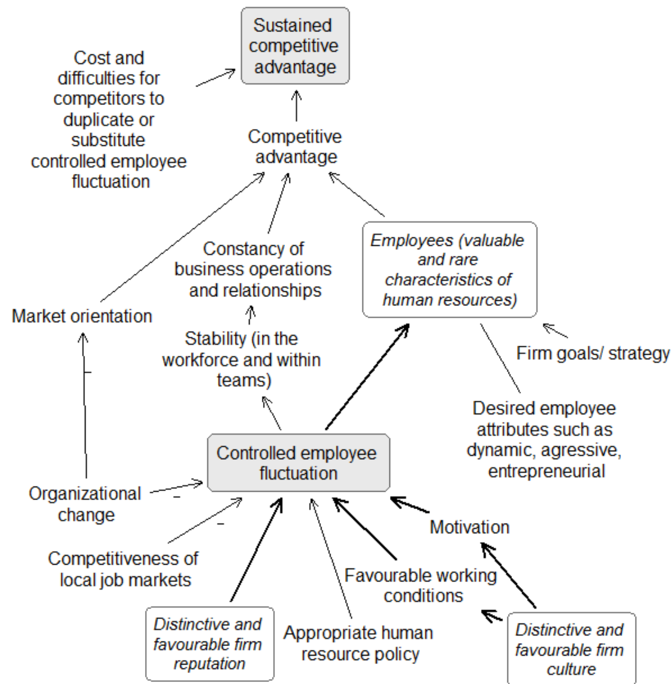

Figure 34: Ability to control employee fluctuation: related concepts and main links

17.1.9 NATIONAL REPUTATION

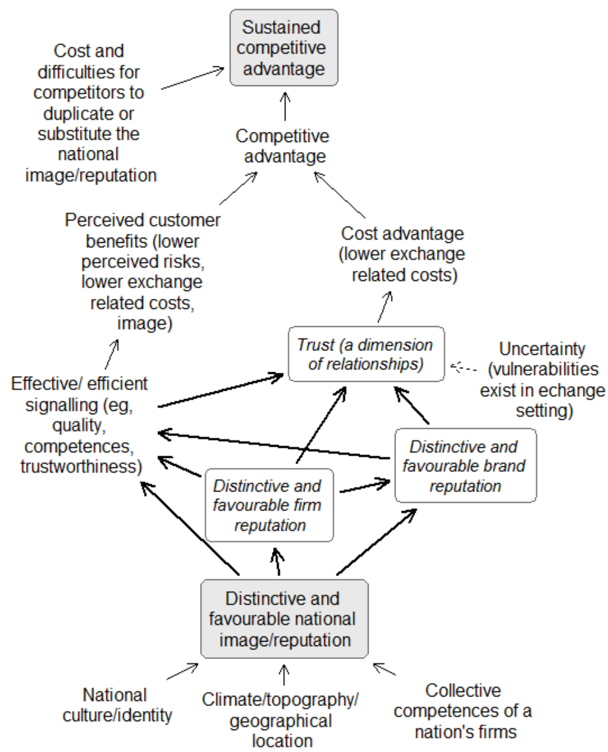

Figure 35: National reputation: related concepts and main links

17.2 SPECIAL FINDINGS

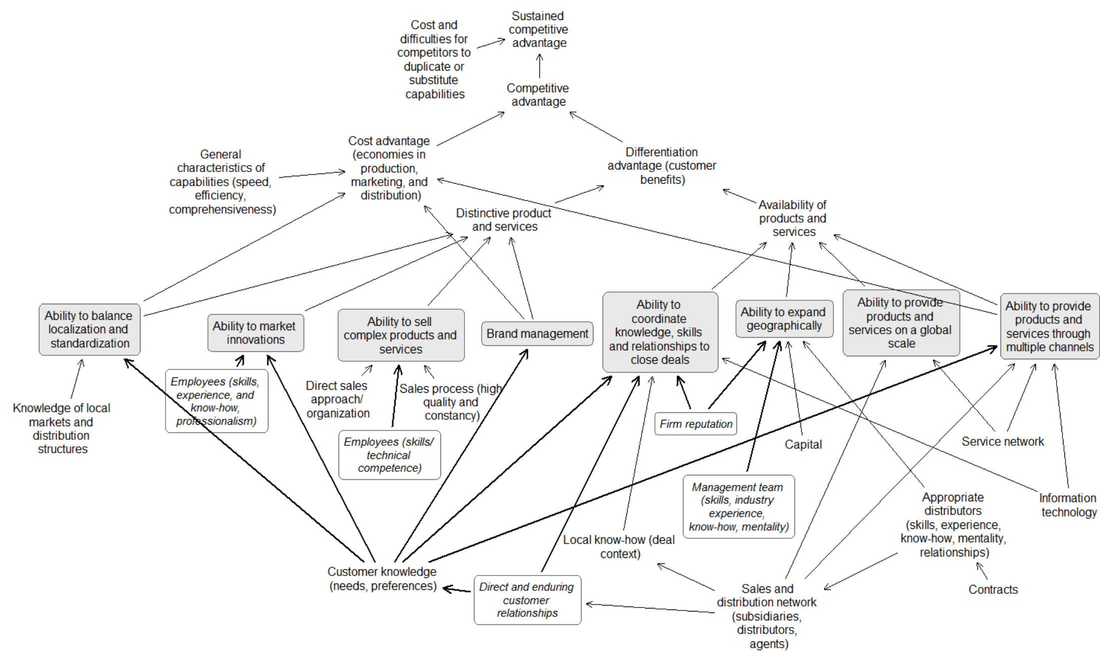

Figure 36: Special findings: concepts and main links

18 CONCLUSION

The purpose of this final chapter is to discuss the implications, limitations, and special strengths of this research, and to suggest possible future research opportunities.

The chapter commences with a discussion of the main theoretical implications arising from the study, including the sources of sustained competitive advantage, the operationalization of resource constructs, the links between resources and sustained competitive advantage, the value of using an RBV lens in strategic management research, and the analytical level appropriate for conducting RBV research. The next section provides a discussion of the managerial implications of the study, including the identification of potential sources of competitive advantage, path dependency, and the need for continuous resource management. After that, the chapter turns to assessing the limitations of the research regarding methodology, case sample, respondent sample, data collected, and subjectivity. The next section highlights the major strengths relative to other studies that have sought to uncover sources of superior firm performance. Finally, the last section suggests possible opportunities for further research; these include, for example, verifying developed theoretical propositions, examining special findings, extending the research into different settings, refining resource constructs, and exploring the causes of firm heterogeneity.

18.1 THEORETICAL IMPLICATIONS

This section presents five major theoretical implications arising from the study: (1) sources of superior firm performance; (2) operationalization of resource constructs, (3) links between resources and sustained competitive advantage; (4) value of using an RBV lens in strategic management research; and (5) level of analysis in RBV research.

18.1.1 SOURCES OF SUPERIOR FIRM PERFORMANCE

The first implication of the study relates to a major concern of strategic management research, namely explaining the causes of persistent superior firm performance (Barney, 1991; Foss & Knudsen, 2003; Hawawini et al., 2003; Hoskisson et al., 1999; Porter, 1985; Rumelt, 1984, 1991). As indicated in Chapter 2, two main explanations have emerged in the last three decades – a market-based and a resource-based explanation. The first suggest that industry factors and the firm's relative position in the market determine its performance (Porter, 1980, 1985). The second contends that firm internal factors –

resources with specific characteristics – determine firm performance (Barney, 1986a, 1991; Peteraf, 1993; Rumelt, 1984; Wernerfelt, 1984). Studies have been conducted to test both industry-level and firm-level effects on firm performance. Such studies, however, have produced mixed results, and they have also left a substantial portion of the performance variance unexplained: to take a few examples, Schmalensee's study leaves unexplained over 80% of the variance (Schmalensee, 1985), while the corresponding percentage for Rumelt's study is over 36% (Rumelt, 1991), and for McGahan and Porter's study over 48% (McGahan & Porter, 1997).

The present study contends that some of the unexplained performance variance may be attributable to firm resources that previous studies have either ignored (e.g., innovation capability, or national reputation), or operationalized in ways that abstract away important inter-firm differences.

18.1.2 Operationalization resource constructs

Resource-based research has often conceptualized resources in relatively broad terms (Johnson et al., 2003) and/or used methodological approaches that concentrate on the average firm, and not on the outlying firms that have distinctive characteristics (Aharoni, 1993). Consequently, the characteristics of firm resources affecting firm performance are still imperfectly understood.

The present study departs from a relatively broad and generic pool of firm resources to first identify areas of competitive strength, and to then drill down on these areas to examine resources and their characteristics contributing to firm performance. An implication of this study is that there is heterogeneity within major resource categories, and that researchers should place a higher emphasis on the attributes of firm resources and their effects on firm performance.

In particular, this study identified performance-relevant resource characteristics, which may help researchers to develop more fine-grained conceptualizations of firm resources to test resource based theory (e.g., Mauri & Michaels, 1998). The study further suggests that it would be useful to extend the generic resource pool with accessible firm external resources (Sanchez & Heene, 2004) and with generic capabilities (Grant, 2008).

18.1.3 Links between resources and sustained competitive advantage

Some RBV studies focusing on the resource-performance relationship have assumed a direct and linear relationship, while the present study indicates that such assumptions

are problematic. Although the study's purpose was not to examine causal relationships between firm resources and performance, the findings suggest important links between the two – links further reinforced by scrutinizing the relevant RBV literature and by selectively integrating other literature that elucidates such relationships.

The study indicates that the relationship between resources and firm performance is often non-linear (e.g., cooperative relationships) or even bi-directional (e.g., firm reputation). On the other hand, the study also suggests that the possession of one or more VRIN resources alone is not a guarantee that the firm effectively achieves a sustained competitive advantage. A firm requires in addition (1) the knowledge about how to exploit them (i.e. paths, contingencies), and (2) appropriate complementary resources/capabilities to exploit them. This knowledge and these complementary resources/capabilities may represent by themselves a source of competitive advantage, which this study, however, did not investigate in particular.

18.1.4 VALUE OF USING AN RBV LENS IN STRATEGIC MANAGEMENT RESEARCH

The study also has implications for the debate regarding whether the RBV provides an adequate lens to advance strategic management as a field. Some scholars have argued that the RBV suffers from important deficits, such as tautology, that limit its applicability (Priem & Butler, 2001a, 2001b; Sanchez, 2008).

The present study suggests that the value of a resource is largely determined through its use by the firm. A resource is considered strategically valuable when it can be employed in increasing product benefits for customers or in decreasing the firm's cost of producing and delivering the product (Peteraf & Barney, 2003). This does not, however, imply that the use value perfectly correlates with the value generated in product markets. For example, a dense service network may provide substantial benefits to customers, but at the same time incur exceedingly high maintenance cost. Thus, defining strategic resources in terms of their use value (i.e., functionality) rather than their market value (i.e., earning capacity) alleviates the problem of tautology.

18.1.5 LEVEL OF ANALYSIS IN RBV RESEARCH

Another implication of the study relates to the debate over the most appropriate level of resource analysis in RBV research (Collis, 1994; Lado et al., 2006). The discussion centres on the problem of infinite regress in identifying the source of a competitive advantage. The study suggests that there is a hierarchy of resources, and that competitive advantage may be linked to resources from various levels, not only from the lowest in the hierarchy.

To illustrate the point, consider a fictive competitive situation of two machine manufacturers (A+B) having comparable competences in building reliable and efficient machines. Firm A has produced them for 50 years and firm B for 10 years. Both firms have over the years built a firm reputation for producing reliable and efficient machines, but firm A's reputation is considerably stronger than firm B's, because prospective customers associate A's more extensive experience with greater reliability. An analysis of firm A's and firm B's resources would thus likely reveal differences in firm reputation, though not in competences.

This suggests that concentrating the analysis only on fundamental resource levels may involve the danger that some important inter-firm differences are overlooked – in the example above, perceived reliability. Consequently, an implication of this study is that different levels of analysis should be used to understand firm heterogeneity and its impact on competitive advantage. This has some important parallels with the competence-based management (CBM) perspective. Ackerman and Eden (2011a; Eden & Ackermann, 1998), for example, suggest that resources in a system can be ordered hierarchically in the form of a "teardrop". At the top are distinctive competence outcomes (DCOs) or competence outcomes (COs), in the middle distinctive competences (DCs) or competences (Cs), and at the bottom distinctive assets (DAs) or assets (A). The CBM perspective also suggests that not only fundamental resources, such as DAs, but also resources higher up in the hierarchy (e.g., DCs) can be linked to competitive advantage. Furthermore, CBM suggests that distinctiveness can emerge from "patterns" of competences, which are relatively difficult to imitate due to causal ambiguity (Ackermann & Eden, 2011a; Eden & Ackermann, 2010). Thus, CBM appears to support the view that focusing the analysis only on the most fundamental resource level is inadequate for identifying firm level differences that confer competitive advantage.

18.2 MANAGERIAL IMPLICATIONS

This section will cover three main managerial implications arising from the study, including (1) identification of potential sources of competitive advantage, (2) persistence of competitive advantage in changing environments, and (3) path dependency.

18.2.1 IDENTIFICATION OF POTENTIAL SOURCES OF COMPETITIVE ADVANTAGE

A central concern for managers is how to attain a competitive advantage. A first option is to access or obtain valuable resources through resource markets. Obviously, when

these markets are relatively efficient and all competing firms have similar information about the future value of resources, these resources cannot be the source of a competitive advantage, though they can nevertheless be important in attaining competitive parity (Barney, 1991).

The situation is different if competing firms possess resources that give them an advantage in identifying, attracting, or using tradeable resources. First, a firm may possess information about the value earning capacity of a resource that competing firm's lack (Barney, 1986b). Second, a firm may also possess specific resources that can be used to attract valuable resources in resource markets – for example, a firm with a favourable firm reputation may be able to recruit high-quality employees whom others with a less favourable firm reputation cannot attract. Finally, a firm may draw on specific, complementary firm resources that allow it to exploit tradeable resources more effectively than its competitors. Thus, competitive advantage most likely relies on firm resources that the firm already possesses. This in essence reflects the assertion of the RBV that a firm can only gain a competitive advantage when its resources hold the necessary potential for doing so (Barney & Arikan, 2001). It also echoes the CBM perspective that competitive advantage can by definition only arise from resource differences among firms, and that such differences can be difficult to detect.

This study identifies a number of strategic firm resources that can confer a sustainable competitive advantage. Although the strategic management literature and the practice-oriented management literature (e.g., Ackermann & Eden, 2011a; Sanchez & Heene, 2004) suggest similar resources, this study provides insights that can be valuable for managers to attain or sustain a competitive advantage.

First, the study explores competitive advantage in high-performing firms and examines in detail the resources that are most closely associated with competitive advantage. Some of these resources, such as *national reputation*, or *controlling employee fluctuation* have not been discussed in the RBV literature as potential sources of competitive advantage. The study also provides insights regarding other potential sources of competitive advantage, including *innovation capability* or *brand reputation*, that, although they have been mentioned in the literature, appear to be conceptually and empirically underexplored.

Second, this study also analyses the ways in which these resources differ from those of close competitors, thus providing a deeper understanding of the resource characteristics that contribute to firm performance.

Third, the study indicates the relationships between resources and competitive advantage. The strategic management literature in general suggests that resources and their links to competitive advantage can be difficult to observe and specify (i.e., they are causally ambiguous). The CBM literature, on the other hand, indicates that appropriate techniques like causal mapping can allow the exploration of causal relationships within organizations, and hence reduce ambiguity (e.g., Ackermann & Eden, 2011a). This study provides insights that are, at least to the external observer, difficult to obtain. In addition, by relating the findings to the extant RBV literature, and by concatenating findings with other relevant management literature, this study may indicate to managers ways to exploit such resources more effectively.

Fourth, the study evaluates, based on resource-based logic, the potential of each resource to contribute to competitive advantage (referred to as main findings – see Chapters 7-15). This evaluation may provide managers with a better understanding of the mechanisms surrounding the value, rareness, inimitability, and non-substitutability condition. The results of this evaluation may also be valuable for those who participated in the study. For example, respondents suggested that competitors might imitate innovation capability by increasing the R&D budgets. The evaluation of innovation capability, however, revealed that the condition of imperfect imitability and substitutability are met. Thus, managers may wish to direct their attention to other firm resources that are more exposed to imitation efforts.

A pragmatic approach to using these insights for attaining or sustaining a competitive advantage would be as follows. Managers could first evaluate the extent to which proposed resources or similar resources would increase the firm's ability to develop and implement value-creating strategies. In a second step, they could then evaluate the firm's potential to develop the relevant resources at a reasonable cost. In a final step, they could attempt to develop these resources through corresponding development processes.

The findings of the present study could be used in conjunction with a more elaborate strategy-making approach, as proposed by Ackermann and Eden (2011a). Viewing strategy-making as a continuous process rather than as "annual rain dance", these two authors suggest that the process can be divided into subprocesses called forums, which

include “issue management”, “strategy as purpose”, “strategy as competitive advantage”, and “stakeholder management”. The findings of the study appear to be particular relevant for the competitive advantage forum. The competitive advantage forum is a process for developing a “competence map” that eventually results in a “statement of strategic intent”. The process is designed as a facilitator-supported workshop with senior management team members, and it consists of four steps: (1) discovering and capturing “views about distinctive competences”, (2) “exploring distinctive competence outcomes or distinctive competences or distinctive assets”, (3) elaborating “competence patterns” and assessing their uniqueness, and (4) developing a “statement of strategic intent” (Ackermann & Eden, 2011a, pp. 207–229).

The present study can inform the first two steps of the process. In step one, the findings of this study could be used as a prompt for uncovering strategically relevant resources. For example, workshop participants could compare their list of the strategically relevant competences/assets that have surfaced in the workshop with the resources that this study has identified as having a high potential for competitive advantage (e.g., firm culture, firm reputation, or innovation capability) and add those to the map of competences deemed relevant and distinctive. This complementary activity could also raise workshop participants’ awareness of ‘hidden’ strategic assets. Furthermore, it could help participants to gain more clarity regarding the specific characteristics that make these assets (i.e., those identified by the present study) valuable.

In step two of the workshop, participants are asked to rate the distinctiveness of the company’s competences and assets relative to competitors with respect to its goals. Workshop participants may find the present study's findings useful in evaluating the distinctiveness of some assets/competences on their competence map. For example, for the asset firm culture, participants could evaluate distinctiveness on the dimensions goal orientation, employee orientation, and consistency in operationalization. This, in turn, might raise participants’ sensibility to competence/asset characteristics that are not only distinctive relative to competitors, but also hard for competitors to imitate.

18.2.2 PERSISTENCE OF COMPETITIVE ADVANTAGE IN CHANGING ENVIRONMENTS

A second major concern for managers is how to maintain a competitive advantage over time. Resource-based theory suggests that the necessary and sufficient condition for sustaining a competitive advantage is imperfect imitability and substitutability (Amit & Schoemaker, 1993; Barney, 1991; Dierickx & Cool, 1989; Peteraf, 1993). This study

identified a number of value-creating firm resources that meet these two conditions – consequently, firms that own one or more such resources may enjoy a competitive advantage for a long time.

The definition of sustainability offered by the traditional RBV is somewhat narrow as it only refers to the period in which competing firms fail to cost-effectively duplicate the source of a competitive advantage. The implicit assumption is that the productive capacity of a VRIN resource remains more or less stable over time. This assumption, as the dynamic capability literature emphasizes, is overly simplistic since there may be threats that can decrease the productive use of a VRIN resource, and thus shorten the longevity of a competitive advantage.

One threat is *asset erosion*, which refers to the decrease of a resource in utility or amount due to degenerative processes such as consumption or obsolescence (Dierickx & Cool, 1989). For example, a brand reputation may gradually degrade in quality or power if appropriate brand management activities are lacking. Put differently, a resource needs to be durable, or managed in a way that ensures its productive capacity.

A second threat is formed by *environmental changes*, such as shifts in technology or consumption patterns (Eisenhardt & Martin, 2000; Sanchez, 2004; Teece et al., 1997). For example, the distinctive technological skills of a firm's employees may become obsolete if the underlying technology is replaced by a different technology. With corresponding dynamic capabilities a firm may be able to modify, transform, recombine or otherwise reuse an extant VRIN resource so that a competitive advantage is maintained. In the event that such transformative or regenerative processes are not possible, or are possible only at disproportionally high costs, a competitive advantage may be lost.

In sum, a competitive advantage arising from VRIN resources, such as the ones identified by this study, are *sustainable* in the sense that they resist competitive imitation and substitution efforts. A competitive advantage becomes more *permanent* if the firm possesses in addition *appropriate* dynamic capabilities to *cost-effectively* address the threats of asset erosion and environmental change. Appropriateness and cost-effectiveness are emphasized here, because dynamic capabilities not only provide benefits, but also incur costs to the firm. Expressed differently, dynamic capabilities can add value to or detract value from the firm – implying that they should be developed and used to an extent in which their marginal benefits equal their marginal costs. For a more

general discussion of dynamic capabilities and their contribution to competitive advantage, see Section 2.3.1.

18.2.3 PATH DEPENDENCY

As discussed in the conceptual framework chapter, the concept of *path dependency* suggests that a resource can only be obtained under particular circumstances (as they were present in the past) or through particular development paths (Barney, 1991, 2001a; Dierickx & Cool, 1989). The development path may reflect a firm's unique history (Barney, 1991) and exhibit other path dependent characteristics such as *asset mass efficiencies* and *asset interconnectedness* (Dierickx & Cool, 1989). This suggests that resources are imperfectly imitable to the extent that historical circumstances do not repeat in the future and to the extent that resource development paths are linked to distinctive firm histories.

The findings of the study indicate that path dependency is a very powerful imitation barrier for competitors. An evident first implication, therefore, is that such resources should be effectively used to sustain a competitive advantage.

The concept of path-dependency, however, is not only important for understanding the sustainability of competitive advantage, but also for developing the resource base over time. Although resource management was not a focus of the study, there are potentially helpful insights that can guide managers in adapting their resource base. First, managers need to understand their current resource position and evaluate development paths to attain target resource positions. Second, managers should consider choosing development paths that provide the necessary level of flexibility to accommodate changes in the environment.

18.2.4 EXPLOITING VRIN RESOURCES

As noted above, a firm may not necessarily enjoy a competitive advantage simply because it possesses one or more VRIN resources. This study indicates that the firm also needs to have an implicit or explicit knowledge about how to exploit such VRIN resources to its advantage. In addition, since VRIN resources are unlikely to create value in isolation, a firm should also have appropriate complementary resources. The integrative diagrams developed for each major finding (e.g., firm reputation, culture, innovation capability) may thus be used by managers and strategists as instruments to help explore possible ways in which their own firm might exploit such VRIN resources.

18.3 LIMITATIONS

All research has limitations. This is true of the present study as well; below, I elaborate on the limitations regarding (1) methodology, (2) case sample, (3) respondent sample, (4) breadth and depth of data, and (5) subjectivity.

18.3.1 METHODOLOGY

There has been a debate regarding the methodologies and approaches that are most appropriate for empirical RBV research (Barney & Mackey, 2005; Daellenbach & Rouse, 2007; Johnson et al., 2003; Levitas & Chi, 2002; Lockett et al., 2009; Rouse & Daellenbach, 1999, 2002). Some scholars propose statistical testing on large scale samples to verify or falsify the main tenets of the RBV and to draw generalizable conclusions (Barney et al., 2001; Michalisin et al., 1997). Other scholars, however, argue that such approaches fail to uncover the resources and resource characteristics that might provide a sustainable competitive advantage, suggesting that researchers should adopt qualitative approaches, such as case study methods, to collect primary data inside the firm (Johnson et al., 2003; Rouse & Daellenbach, 1999). Still other propositions regarding how to advance the RBV include the use of mixed methods (Molina-Azorín, 2007), the utilization of new and innovative methods to bridge knowledge gaps (Barney et al., 2001), and the undertaking of efforts directed at complementing quantitative approaches with qualitative case study research (Lockett et al., 2009)

Following the recommendations of Rouse and Daellenbach (1999), this study adopted a qualitative, explorative case study approach (Stake, 2006; Stebbins, 2001) and a small purposive and in-depth sample (Daellenbach & Rouse, 2007; Eisenhardt, 1989; Yin, 2003). Such qualitative approaches, even if they may have some limitations, offer the opportunity to examine sources of competitive advantage that are otherwise difficult to observe (Barney & Mackey, 2005).

As discussed in the methodology chapter, this research focused on differences between investigated firms and close rather than marginal competitors. Obviously, this limits the study to providing information regarding such sources of competitive advantage that are related to close competitors, and forces it to ignore those related to marginal competitors. However, the benefits of this approach outweigh its limitations, and it was chosen for two main reasons. The first is pragmatic: respondents may not know their marginal competitors, or may not know them sufficiently well to draw meaningful comparisons. The second is more substantive: taking close competitors as the point of

reference focuses the study on competitively relevant interfirm differences. Using close competitors as point of reference, though not particularly common, is not without precedent in RBV research (see Galbreath & Galvin, 2004; Peteraf & Bergen, 2003).

Relying on data provided by respondents also brought with it some limitations. In particular, some strategically relevant interfirm differences may not have been detected. Incomplete information, complexity, and causal ambiguity may have prevented respondents from unequivocally determining resources or resource characteristics supporting competitive advantage. The face time with respondents, consisting of the duration of the semi-structured interviews, was limited not only by the question structure but also but the time respondents were able and prepared to dedicate to this research, and thus the motivation of the respondents also may have shaped the level of detail and comprehensiveness of the data.

Relying on respondents also means that the findings of the study may to some extent be subject to response bias. Respondents may have considered the strengths and weaknesses of their firm relative to competitors in too pessimistic or too optimistic a light. Ackermann and Eden (2011a, pp. 200–201) note that managers often consider their firm's relative strengths through "rose-tinted glasses", resulting in assertions that may substantially deviate from the perception that others (e.g., customers) have about the firm's relative strengths. Ackerman and Eden suggest that such potential bias may be reduced if managers ask outsiders (e.g., customers) to critically challenge their views. Some respondents of this study, for example, noted that their companies' culture is distinctive and a competitive strength. Such assertions are difficult to verify empirically. In practice, verification would require performing an in-depth analysis of the focal firm and in the organizations of relevant competitors with regard to their respective cultures and their effects on firm performance in the organization, potentially also involving the views of their suppliers, customers, business partners, and other stakeholders. Such analyses may be in themselves difficult to undertake due to the complex and tacit nature of the subject. Furthermore, such analyses involving direct competitors may be questionable from an ethical point of view.

Despite these problems regarding the imperfect information possessed by respondents and the potential biases the respondents may exhibit, focusing on data provided by respondents contributed much valuable information that would not have been available in any other manner. Furthermore, measures were undertaken to mitigate response bias

(for a more detailed discussion of the research design see Chapter 5). One such measure was data triangulation within the case: this study used data from two or more respondents for each case. Another was the use of semi-structured interviews, which allowed the probing and verification of respondents' answers. For example, if an asset (e.g., culture) was mentioned as a competitive strength, this technique allowed the posing of follow-up questions to examine in more detail the way in which that asset differs from its counterpart at competing firms and how these differences contribute to superior performance.

A final aspect of the methodology used in this study that might be considered a limitation is that the study uses an *ex post* perspective on competitive advantage – that is, it does not explicitly examine whether these interfirm differences will continue to be sources of competitive advantage in future competitive contexts that may be different from the present one. Thus, it may be possible that changes in technology, customer preferences and other contextual factors will cause resources identified as valuable and rare to become in future competitive settings less important or irrelevant, or even sources of competitive weakness. For example, a distinctive national reputation, a resource identified by the study as a source of competitive advantage, may become less valuable when customer preferences change, thereby eroding a competitive advantage. Analysing such possibilities, however, would require predicting the future, and would in any case change very little regarding the validity of the results in the present.

18.3.2 CASE SAMPLE

As discussed in Chapter 5 (research design), this study used a purposive sampling approach, which could be more specifically described as particular criterion or extreme case sampling (Given, 2008). Purposive sampling is used to meet a particular research objective. Here, the particular research objective was to explore sources of sustained competitive advantage. The study used four sampling criteria. The first criteria refers to superior performance, which was used as a proxy for competitive advantage. To discriminate between firms with regard to performance, firms were categorized based on publicly available performance-related indicators, such as market share, turnover, profit, and investment.

A case sample of this kind may consist either of similar cases or of contrasting cases. Similar cases could be used to make "literal" replications, while contrasting cases could be utilized to make "theoretical" replications (Yin, 2003). Rouse and Daellenbach (1999),

for example, suggest the use of a mixed sample of high and low performing firms to contrast findings.

Although such a sample may provide valuable insights, I considered a sample of highly successful firms more useful for exploring sources of competitive advantage for at least three reasons. First, if it is useful at all, a contrast is useful between high performing firms and their marginal competitors, not between a high performing firm and any arbitrarily selected low performing firm within the same industry. However, as noted earlier, such marginal competitors may be difficult to identify, even with the support of respondents of high performing firms, and may be difficult to access, since they may be located anywhere in the world. Second, contrasting high and low performing firms would imply the need to concentrate on a single industry, or at most on a few industries. This research, however, sought to explore the sources of competitive advantage in a variety of contexts, so that its findings would be as widely applicable as possible. Third, investigating competing firms directly could also raise ethical issues. One needs to bear in mind that information about a firm's strategic competitive strengths is a matter of high confidentiality. Research on competing firms, at least in theory, carries with it the risk that respondents become reluctant to share relevant information with the researcher. Therefore, the study used a sample of high performing firms across different industries.

Any study with a sample is, of course, also restricted in terms of the size and character of the sample. For pragmatic reasons like logistics, costs, and feasibility, the study applied a number of sampling criteria that limited the sample in the following ways: the sample includes only firms located within a radius of 150 km from Zurich; firms for which appropriate access to research sites and respondents could be negotiated; and firms with German-speaking respondents to minimize the effort and complexity involved in collecting, processing, and analysing data. There is, however, no reason to assume that any of these restrictions have influenced the results in a systematic manner.

Regarding the size of the sample, the study's sample of 11 cases falls well within the recommendations found in the literature, particularly considering the complexity of the phenomena under study. Yin (2003) suggests that multiple case designs should follow a replication logic and consequently should not apply the traditional logic of sampling. He suggests that the size of cases should reflect the number replications to achieve the desired level of certainty. A rule to determine the optimal number of cases, however, does not exist; rather, sample size is a question of judgment (Eisenhardt, 1989; Stebbins,

2001; Yin, 2003). Although larger sample sizes are generally preferred to increase the level of certainty (Yin, 2003), or to explore complex phenomena (Glesne, 1999), one must also consider the fact that marginal net benefits can decrease with size (Yin, 2003). Eisenhardt (1989) recommends using a sample between 4 and 10 cases, which allows for the development of a convincing, empirically grounded theory while limiting the risk of data overload.

Finally, to meet the objective of uncovering sources of competitive advantage, the sampling focused on highly competitive firms (e.g., Hall, 1993). Consequently, negative or disconfirming cases, or low-performing firms, have not been included in the sample. A purposive sample – which is a typical feature of qualitative case studies – is also not representative of a specific population of firms (Yin, 2003). Both of these aspects of the sampling strategy could theoretically be regarded as limitations, but they are justified by the aims of the study. First, concentrating the sample on conceptually relevant cases helps to better saturate concepts (Glaser & Strauss, 1967; Silverman & Marvasti, 2008). Furthermore, to enhance generalizability, the findings have been compared to the extant strategic management oriented RBV literature and other relevant literature covering the resource-performance relationship (Eisenhardt, 1989).

18.3.3 RESPONDENT SAMPLE

As discussed in Chapter 5, sampling in case study research involves not only case sampling but also within-case sampling decisions, such as decisions regarding respondents and settings (Miles & Huberman 1994). The study aimed at selecting senior management team members involved in the strategic management processes. Using a theoretical sampling strategy, the selection of respondents followed a simple procedure: After the firm had confirmed their participation, I asked the contact person to propose suitable respondents to schedule first interviews with. Then, I commenced with the first interview, typically with the most senior person on the respondent list, and asked that respondent at the end of the interview to revise or extend the respondents list in the light of emerging concepts requiring further clarification. The study aimed at having between two and three respondents per case. In total, twenty-six respondents were selected for interviews.

Obviously, some constraints influenced the choice of respondents, the major constraint being the unavailability of some of the "ideal" interview candidates due to other commitments. The sample is therefore not homogenous in terms of roles, functions, and

experience. Nevertheless, selecting from each case several respondents with different functions helped to better saturate concepts (Glaser & Strauss, 1967; Silverman & Marvasti, 2008). Second, selecting multiple respondents with different roles and experience also helped to triangulate data within cases (Miles & Huberman, 1994). It was, for example, possible to triangulate the data from the CEO with that of the marketing director in the same case. These responses were generally highly consistent.

A further consideration regarding within-case sampling strategy included the number of data points. In principle, one could investigate competitive advantage with either single or multiple data points, where the latter would allow the generalization of data across different chronological periods. The present study collected data for a single data period only, and thus such generalization is not possible; this slight limitation, however, is well justified by the fact that the aim of the explorative case study was to discover and develop concepts, not to generalize findings across different periods.

18.3.4 BREADTH AND DEPTH OF DATA

A hallmark of case study research method is that it provides means to collect substantial amounts of data from interviews and a variety of other sources, including observation, documents and archival records, and physical artefacts (Stake, 2006; Yin, 2003). A frequent objection to case study research is, however, that it is time and resource intensive and that results in bulky, unreadable documents (Yin, 2003). While this complaint may reflect the traditional manner of doing case studies, Yin (2003) asserts that a case study need neither take an inordinate amount of time to complete nor require overly detailed prose.

As discussed in Chapter 4, this study concentrated on using interviews to collect the required data. Based on a thorough evaluation of data collection methods, interviews were considered to offer the most suitable method for exploring the phenomenon of competitive advantage as perceived by key actors within the firm. A limitation arising from this design choice is that data cannot be triangulated between data sources; this limitation, however, is more than compensated for by the fact that interview methodology allows the interactive exploration of subjects, provides access to unrecorded perceptions and experiences, and is highly focused and efficient (Denzin & Lincoln, 2005a; Easterby-Smith et al., 2002; Remenyi et al., 1998; Saunders et al., 2003).

Finally, the ethical issues that constrain the reporting of contextual data may be worth mentioning. Undoubtedly, readers would wish to know as much as possible about the

cases, respondents, and contexts investigated in order to help them apply the results in different settings. To meet the confidentiality requirements of the study, however, any information from which the identity of participating firms or respondents could be inferred has been anonymized, abstracted, or, where necessary, removed from the report. Special care was given to this issue since the case sample, as indicated before, was mainly drawn from companies in Switzerland; the limited size of Switzerland enables inferences about cases to be drawn on the basis of relatively trivial case information, such as firm size and industry. This sets consequent boundaries on the details that can be given about cases, respondents, and contexts. Every effort, however, has been made to present the findings in a way that preserves the maximum of relevant information.

18.3.5 SUBJECTIVITY

The qualitative approach to data collection and analysis adopted here relies to some extent on the perspective and understanding of the researcher, and thus contains some level of subjectivity. Subjectivity can contribute to new insights and new interpretations of data, and should consequently be perceived not merely as a limitation but also as something valuable that the researcher brings to the research (Creswell, 2003; Maxwell, 2005). It is, however, recommended that the researcher explicitly state which personal beliefs, experiences, assumptions, and perspectives affect the processes undertaken to collect, analyse and interpret data (Creswell, 2003). This information has been given in different parts of the dissertation. First, the research paradigm adopted for this research has been discussed in detail in the methodology chapter (Chapter 4). The research paradigm provides a detailed account of my assumptions about the nature of knowledge and the methods through which that knowledge can be obtained. A further section in the research design chapter (Chapter 5), specifically dedicated to the role of the researcher, gives additional information about my personal experience and perspective. Finally, the chapter on the conceptual framework (Chapter 3) provides a detailed discussion of the perspective that I have adopted to investigate sources of sustained competitive advantage.

In addition, the maximum validity of the data collection and interpretation processes has been ensured through a number of steps, including the application of a systematic methodology, reviews with supervisors, cross case comparison, and comparison with extant strategic management oriented RBV literature.

18.4 SPECIAL STRENGTHS OF THE STUDY

In relation to other studies (e.g., Aaker, 1989; Galbreath & Galvin, 2004; Hall, 1992; Michalisin et al., 1997) seeking to uncover firm-level sources of sustained competitive advantage, the present study has a number of particular strengths.

First, the present study used a purposive sample of high-performing firms and collected in-depth data within the firm. This data set allows the exploration of potential firm-level sources of competitive advantage, concentrating on the outlying firms. This is an advantage over studies that collect less detailed data (e.g., surveying) or concentrate on the characteristics of the average firm.

Second, this study used an explorative, inductive approach to explore firm-level resources associated with competitive advantage, providing an advantage over studies that use deductive approaches to test hypothesized performance effects for a limited set of rather broadly defined resource categories.

Third, this study used a relatively large case sample of 11 firms, which permitted, for example, the saturation of concepts, the triangulation of findings between cases, and the development of robust theoretical propositions (validity) – in other words, the relatively large sample size made possible forms of investigation and verification not available in case studies that use smaller sample sizes.

Fourth, this study used multiple respondents in each case, enabling data within the case to be triangulated; many RBV studies only use one respondent per firm, precluding triangulation.

Fifth, unlike some RBV studies that are either partially or not at all grounded in extant strategically oriented management RBV literature (e.g., Aaker, 1989; Hall, 1992), the present study is well grounded theoretically, departing from a conceptual framework rooted in extant RBV literature.

Sixth, again unlike some other studies, this study integrates its findings with the extant strategic management oriented RBV literature and other related management literature. This has made it possible to further saturate identified concepts, to concatenate findings across studies, and to triangulate findings to draw valid conclusions, all of which have positive implications on the study's internal validity (concepts, associations between concepts) and external validity (generalizability).

18.5 FUTURE RESEARCH AGENDA

This section highlights possible avenues for advancing the development of resource-based theory, particularly considering five areas for future research: (1) testing propositions; (2) examining special findings; (3) extending the research into different settings; (4) refining resource constructs; and (5) exploring causes of firm heterogeneity.

18.5.1 TESTING PROPOSITIONS

The most evident research opportunity arising from this study is the testing of the theoretical propositions developed here with a *larger sample of firms*. A statistical analysis would permit controlling for various firm-level and contextual variables, so as to draw robust and generalizable conclusions about the sources of competitive advantage identified in this study. Such research could also indicate the extent to which the resource characteristics identified here contribute to firm performance.

18.5.2 EXAMINING SPECIAL FINDINGS

A second fruitful avenue to increase our understanding of the sources of sustained competitive advantage would be a *further examination of the special findings of this research*. As indicated in Chapter 6, due to the focus and constraints of this dissertation, not all relevant interfirm differences have been fully explored and related to the literature with the aim of developing theoretical propositions. By further exploring that part of the research data and integrating it with relevant literature from other fields, such as marketing, we might be able to develop further insights about the causes of sustained competitive advantage.

18.5.3 EXTENDING THE RESEARCH INTO DIFFERENT SETTINGS

Extending the *study into different settings* or conducting studies *over longer time periods*, too, offer research opportunities that could potentially extend and reinforce the findings of this study. More specifically, one option would be to use a different case sample, for example, firms located outside Switzerland, from different industries, or with a low performance. A further option would be to focus the sample on a particular industry to explore industry-specific sources of competitive advantage in more detail. Yet another possibility would be to conduct the research longitudinally to examine possible changes in resource characteristics and their effects on competitive advantage. Finally, one could replicate the study with different respondent samples concentrating on a single selection criterion, such as function, experience, or status. For example, a study focusing

exclusively on marketing managers might help to extend our knowledge about marketing-related resources and their effects on firm performance.

18.5.4 REFINING RESOURCE CONSTRUCTS

A further fruitful avenue would be to *refine resource constructs and explore the functional and behavioural attributes of resources in greater detail*. This study has concentrated on major sources of sustained competitive advantage, identified important resource differences among competing firms that are most closely associated with competitive advantage, and helped to develop more relevant resource constructs by linking research findings with the strategic management oriented RBV literature and by concatenating relevant concepts developed in other disciplines such as marketing. To increase our understanding of functional and behavioural attributes of resources (Sanchez, 2008) and to establish sufficiently sophisticated and reliable resource constructs in RBV research (Caloghirou, Protogerou, Spanos, & Papagiannakis, 2004), additional research is warranted. Particularly valuable would be research that integrates and consolidates literatures on resource constructs and research that explores the functionality, cost, and behaviour of resources from a systemic perspective.

18.5.5 EXPLORING CAUSES OF FIRM HETEROGENEITY

Another opportunity for research is to explore the origins of firm heterogeneity. Much empirical work within the resource-based literature stream starts out by assuming firm heterogeneity and then simply investigates its effects on firm performance. Much less research has been directed towards the understanding of the origins and processes that create firm heterogeneity in the first place. The RBV suggests that firm-level differences can have their roots in resource markets (Barney, 1986b) and in firm-internal development and decision processes (Dierickx & Cool, 1989). The literature on strategic factor markets, for example, stresses luck and information asymmetries as possible sources of firm heterogeneity. The present study suggests that apart from information, other firm-specific resources can play an important role in identifying, attracting, and using firm resources. For example, a distinctive firm reputation may be used to attract high quality employees. Thus, additional research would be necessary to understand how idiosyncratic resource positions create firm heterogeneity. Likewise, research that explores the development processes of nontradable resources, such as culture or firm reputation, would be helpful. Such research may, however, be challenging from methodological point of view, especially when development periods of resources are long and data is difficult to obtain. As this study showed, firm reputation, for example,

may require years, if not decades, to develop, and may even comprise distinctive associations that date back to founding years of the organization (i.e., more than 100 years).

Particularly interesting would also be to understand the role of resource development paths, and the extent to which managerial processes and intelligence can be used to gain a more favourable resource position in the future (Dierickx & Cool, 1989; Sanchez, 2004; Teece et al., 1997). In sum, by gaining a better understanding of the causes of firm heterogeneity we may be able develop theories that guide firms in developing and maintaining a distinctive resource base.

REFERENCES

Aaker, D. A. (1989). Managing assets and skills: The key to a sustainable competitive advantage. *California Management Review*, *31*(2), 91–106.

Aaker, D. A. (1991). *Managing brand equity: Capitalizing on the value of a brand name*. New York: Free Press.

Aaker, D. A. (1994). Building a brand: The Saturn story. *California Management Review*, *36*(2), 114–133.

Aaker, D. A. (2010). Improve your brand I.D. *Marketing News*, *44*(4), 12.

Aaker, D. A., & Mascarenhas, B. (1984). The need for strategic flexibility. *Journal of Business Strategy*, *5*(2), 74–82.

Abernathy, W. J., & Clark, K. B. (1985). Innovation: Mapping the winds of creative destruction. *Research Policy*, *14*(1), 3–22.

Abrahamson, E. (1991). Managerial fads and fashions: The diffusion and rejection of innovations. *Academy of Management Review*, *16*(3), 586–612.

Ackermann, F., & Eden, C. (2011a). *Making strategy: Mapping out strategic success* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Ackermann, F., & Eden, C. (2011b). Strategic management of stakeholders: Theory and practice. *Long Range Planning*, *44*(3), 179–196.

Aharoni, Y. (1993). In search for the unique: Can firm-specific advantages be evaluated? *Journal of Management Studies*, *30*(1), 31–49.

Ahuja, G. (2000). Collaboration networks, structural holes, and innovation: A longitudinal study. *Administrative Science Quarterly*, *45*(3), 425–455.

Ailawadi, K. L., Lehmann, D. R., & Neslin, S. A. (2003). Revenue premium as an outcome measure of brand equity. *Journal of Marketing*, *67*(4), 1–17.

Akerlof, G. A. (1970). The market for "lemons": Quality uncertainty and the market mechanism. *The Quarterly Journal of Economics*, *84*(3), 488–500.

Alchian, A. A., & Demsetz, H. (1972). Production, information costs, and economic organization. *The American Economic Review*, *62*(5), 777–795.

Allard-Poesi, F., & Maréchal, C. (2001). Constructing the research problem. In R. A. Thiétart (Ed.), *Doing management research: A comprehensive guide* (pp. 31–50). London: SAGE.

Almeida, P. (1996). Knowledge sourcing by foreign multinationals: Patent citation analysis in the U.S. semiconductor industry. *Strategic Management Journal*, *17*, 155–165.

Alvarez, S. A., & Barney, J. B. (2001). How entrepreneurial firms can benefit from alliances with large partners. *Academy of Management Executive*, *15*(1), 139–148.

Alvesson, M. (2002). *Understanding organizational culture*. London: SAGE.

Ambrosini, V. (2003). *Tacit and ambiguous resources as sources of competitive advantage*. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan.

Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews*, *11*(1), 29–49.

Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, *14*(1), 33–46.

Amit, R., & Zott, C. (2001). Value creation in e-business. *Strategic Management Journal*, *22*(6/7), 493–520.

Anand, B. N., & Khanna, T. (2000). Do firms learn to create value? The case of alliances. *Strategic Management Journal*, *21*(3), 295–315.

Ancori, B., Bureth, A., & Cohendet, P. (2000). The economics of knowledge: The debate about codification and tacit knowledge. *Industrial and Corporate Change*, *9*(2), 255–287.

Anderson, J. C., & Narus, J. A. (1991). Partnering as a focused market strategy. *California Management Review*, *33*(3), 95–113.

Andrews, K. R. (1971). *The concept of corporate strategy*. Homewood, IL: Dow Jones-Irwin.

Andriopoulos, C., & Lewis, M. W. (2010). Managing innovation paradoxes: Ambidexterity lessons from leading product design companies. *Long Range Planning*, *43*(1), 104–122.

Appleyard, M. M. (1996). How does knowledge flow? Interfirm patterns in the semiconductor industry. *Strategic Management Journal*, *17*, 137–154.

Arend, R. J. (2003). Revisiting the logical and research considerations of competitive advantage. *Strategic Management Journal*, *24*(3), 279–284.

Arend, R. J. (2006). Tests of the resource-based view: Do the empirics have any clothes? *Strategic Organization*, *4*(4), 409–421.

Argenti, P. A., & Druckenmiller, B. (2004). Reputation and the corporate brand. *Corporate Reputation Review*, *6*(4), 368–374.

Argyres, N. (1996). Evidence on the role of firm capabilities in vertical integration decisions. *Strategic Management Journal*, *17*(2), 129–150.

Arogyaswamy, B., & Byles, C. M. (1987). Organizational culture: Internal and external fits. *Journal of Management*, *13*(4), 647–658.

Arora, A. (1995). Licensing tacit knowledge: Intellectual property rights and the market for know-how. *Economics of Innovation and New Technology*, *4*(1), 41–60.

Arrow, K. J. (1974). *The limits of organization*. The Fels lectures on public policy analysis (1st ed.). New York: Norton.

Askegaard, S., Ger, G., Englis, B. G., & Olofsson, A. (1998). Product-country images: Towards a contextualized approach. *European advances in consumer research* (Vol. 3, pp. 50–58). Provo, UT: Association for Consumer Research.

Baaij, M., Greeven, M., & Van Dalen, J. (2004). Persistent superior economic performance, sustainable competitive advantage, and Schumpeterian innovation: Leading established computer firms, 1954-2000. *European Management Journal*, *22*(5), 517–531.

Bain, J. S. (1956). *Barriers to new competition*. Cambridge, MA: Harvard University Press.

Bain, J. S. (1968). *Industrial organization* (2d ed.). New York: Wiley.

Baker, G., Gibbons, R., & Murphy, K. J. (2002). Relational contracts and the theory of the firm. *The Quarterly Journal of Economics*, *117*(1), 39–84.

Bannister, J. P., & Saunders, J. A. (1978). UK consumers' attitudes towards imports: The measurement of national stereotype image. *European Journal of Marketing*, *12*, 562–570.

Barney, J. B. (1986a). Organizational culture: Can it be a source of sustained competitive advantage? *Academy of Management Review*, *11*(3), 656–665.

Barney, J. B. (1986b). Strategic factor markets: Expectations, luck, and business strategy. *Management Science*, *32*(10), 1231–1241.

Barney, J. B. (1986c). Types of competition and the theory of strategy: Toward an integrative framework. *Academy of Management Review*, *11*(4), 791–800.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*, 99–120.

Barney, J. B. (1997). *Gaining and sustaining competitive advantage*. Reading, MA: Addison-Wesley Pub. Co.

Barney, J. B. (2000). Firm resources and sustained competitive advantage. In J. A. C. Baum & F. Dobbin (Eds.), *Economics Meets Sociology in Strategic Management*, Advances in Strategic Management (Vol. 17, pp. 203–227). Bingley, UK: Emerald Group Publishing.

Barney, J. B. (2001a). Is the resource-based view a useful perspective for strategic management research? Yes. *Academy of Management Review*, *26*(1), 41–56.

Barney, J. B. (2001b). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, *27*(6), 643–650.

Barney, J. B., & Arikan, A. M. (2001). The resource-based view: Origins and implications. In M. A. Hitt, R. E. Freeman, & J. S. Harrison (Eds.), *The Blackwell handbook of strategic management*, Handbooks in management (pp. 124–188). Oxford, UK: Wiley-Blackwell.

Barney, J. B., & Clark, D. N. (2007). *Resource-based theory: Creating and sustaining competitive advantage*. Oxford: Oxford University Press.

Barney, J. B., & Hansen, M. H. (1994). Trustworthiness as a source of competitive advantage. *Strategic Management Journal*, *15*, 175–190.

Barney, J. B., & Hesterly, W. S. (2008). *Strategic management and competitive advantage concepts* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Barney, J. B., Ketchen, D. J., & Wright, M. (2011). The future of resource-based theory. *Journal of Management*, *37*(5), 1299 –1315.

Barney, J. B., & Mackey, T. B. (2005). Testing resource-based theory. In D. J. Ketchen & D. D. Bergh (Eds.), *Research methodology in strategy and management* (Vols. 1-2, pp. 1–13). Bingley, UK: Emerald Group Publishing.

Barney, J. B., & Wright, P. M. (1998). On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management*, *37*(1), 31–46.

Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, *27*(6), 625–641.

Barringer, B. R., & Harrison, J. S. (2000). Walking a tightrope: Creating value through interorganizational relationships. *Journal of Management*, *26*(3), 367–403.

Bates, K. A., & Flynn, E. J. (1995). Innovation history and competitive advantage: A resource-based view analysis of manufacturing technology innovations. *Academy of Management Best Papers Proceedings*, 235–239.

Bates, K., Bates, H., & Johnston, R. (2003). Linking service to profit: The business case for service excellence. *International Journal of Service Industry Management*, *14*(2), 173–183.

Batra, R., Ramaswamy, V., Alden, D. L., Steenkamp, J.-B. E. M., & Ramachander, S. (2000). Effects of brand local and nonlocal origin on consumer attitudes in developing countries. *Journal of Consumer Psychology*, *9*(2), 83–95.

Beamish, P. W. (1987). Joint ventures in LCDs: Partner selection and performance. *Management International Review*, *27*(1), 23–37.

Becker, B. E., & Huselid, M. A. (1998). High performance work systems and firm performance: A synthesis of research and management implications. *Research in Personnel and Human Resources Management,*, *16*, 53–101.

Benjamin, B. A., & Podolny, J. M. (1999). Status, quality, and social order in the California wine industry. *Administrative Science Quarterly*, *44*(3), 563–589.

Benner, M. J., & Tushman, M. L. (2003). Exploitation, exploration, and process management: The productivity dilemma revisited. *Academy of Management Review*, *28*(2), 238–256.

Bhatt, G. D. (2000). A resource-based perspective of developing organizational capabilities for business transformation. *Knowledge and Process Management*, *7*(2), 119–129.

Black, J. A., & Boal, K. B. (1994). Strategic resources: Traits, configurations and paths to sustainable competitive advantage. *Strategic Management Journal*, *15*, 131–148.

Bloom, N., & Van Reenen, J. (2002). Patents, real options and firm performance. *The Economic Journal*, *112*(478), C97–C116.

Bogaeart, I., Martens, R., & Van Cauwenbergh, A. (1994). Strategy as a situational puzzle: The fit of components. In G. Hamel & A. Heene (Eds.), *Competence-based competition*, The strategic management series (pp. 57–74). Chichester, UK: Wiley.

Bogner, W. C., & Thomas, H. (1994). Core competence and competitive advantage: A model and illustrative evidence from the pharmaceutical industry. In G. Hamel & A. Heene (Eds.), *Competence-based competition*, The strategic management series (pp. 111–144). Chichester, UK: Wiley.

Bogner, W. C., Thomas, H., & McGee, J. (1999). Competence and competitive advantage: Towards a dynamic model. *British Journal of Management*, *10*(4), 275–290.

Botschen, G., & Hemetsberger, A. (1998). Diagnosing means-end structures to determine the degree of potential marketing program standardization. *Journal of Business Research*, *42*(2), 151–159.

Boulton, R. E. S., Libert, B. D., & Samek, S. M. (2000). *Cracking the value code: How successful businesses are creating wealth in the new economy*. New York: HarperBusiness.

Bourgeois, L. J., & Eisenhardt, K. M. (1988). Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. *Management Science*, *34*(7), 816–835.

Bowman, C., & Ambrosini, V. (2001). “Value” in the resource-based view of the firm: A contribution to the debate. *Academy of Management Review*, *26*(4), 501–502.

Bowman, C., & Ambrosini, V. (2010). How value is created, captured and destroyed. *European Business Review*, *22*(5), 479–495.

Boyd, B. K., Bergh, D. D., & Ketchen, D. J. (2010). Reconsidering the reputation - performance relationship: A resource-based view. *Journal of Management*, *36*(3), 588–609.

Bradach, J. L., & Eccles, R. G. (1989). Price, authority, and trust: From ideal types to plural forms. *Annual Review of Sociology*, *15*, 97–118.

Brealey, R. A., & Myers, S. C. (1996). *Principles of corporate finance*. McGraw-Hill series in finance (5th ed.). New York: McGraw-Hill.

Brenner, M., Brown, J., & Canter, D. V. (Eds.). (1985). *The research interview, uses and approaches*. London: Academic Press.

Bromiley, P., & Fleming, L. (2002). The resource based view of strategy: A behaviorist's critique. In M. Augier & J. G. March (Eds.), *The economics of choice, change, and organization: Essays in memory of Richard M. Cyert* (pp. 319–336). Cheltenham, UK: E. Elgar.

Brooking, A. (1997). *Intellectual capital*. London: International Thomson Business Press.

Brown, R. (1992). Managing the "S" curves of innovation. *Journal of Business & Industrial Marketing*, *7*(3), 41 – 52.

Brush, T. H., & Artz, K. W. (1999). Toward a contingent resource-based theory: The impact of information asymmetry on the value of capabilities in veterinary medicine. *Strategic Management Journal*, *20*(3), 223–250.

Brush, T. H., Bromiley, P., & Hendrickx, M. (1999). The relative influence of industry and corporation on business segment performance: An alternative estimate. *Strategic Management Journal*, *20*(6), 519–547.

Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organisational analysis: Elements of the sociology of corporate life*. London: Heinemann.

Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, *31*(6), 515–524.

Caloghirou, Y., Protogerou, A., Spanos, Y., & Papagiannakis, L. (2004). Industry- versus firm-specific effects on performance: Contrasting SMEs and large-sized firms. *European Management Journal*, *22*(2), 231–243.

Camerer, C., & Vepsalainen, A. (1988). The economic efficiency of corporate culture. *Strategic Management Journal*, *9*, 115–126.

Camison-Zornoza, C., Lapiedra-Alcami, R., Segarra-Cipres, M., & Boronat-Navarro, M. (2004). A meta-analysis of innovation and organizational size. *Organization Studies*, *25*(3), 331–361.

Del Canto, J. G., & González, I. S. (1999). A resource-based analysis of the factors determining a firm's R&D activities. *Research Policy*, *28*(8), 891–905.

Capaldo, A. (2007). Network structure and innovation: The leveraging of a dual network as a distinctive relational capability. *Strategic Management Journal*, *28*(6), 585–608.

Capron, L. (1999). The long-term performance of horizontal acquisitions. *Strategic Management Journal*, *20*(11), 987–1018.

Capron, L., & Hulland, J. (1999). Redeployment of brands, sales forces, and general marketing management expertise following horizontal acquisitions: A resource-based view. *Journal of Marketing*, *63*(2), 41–54.

Carmeli, A. (2001). High- and low-performance firms: Do they have different profiles of perceived core intangible resources and business environment? *Technovation*, *21*(10), 661–671.

Castanias, R. P., & Helfat, C. E. (1991). Managerial resources and rents. *Journal of Management*, *17*(1), 155–171.

Castanias, R. P., & Helfat, C. E. (2001). The managerial rents model: Theory and empirical analysis. *Journal of Management*, *27*(6), 661–678.

Chandler, A. D. (1962). *Strategy and structure: Chapters in the history of the industrial enterprise*. M.I.T. Press research monographs. Cambridge: M.I.T. Press.

Chang, S.-J., & Singh, H. (2000). Corporate and industry effects on business unit competitive position. *Strategic Management Journal*, *21*(7), 739–752.

Chatterjee, S., & Wernerfelt, B. (1991). The link between resources and type of diversification: Theory and evidence. *Strategic Management Journal*, *12*(1), 33–48.

Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. *Long Range Planning*, *43*(2/3), 354–363.

Choi, J., & Wang, H. (2009). Stakeholder relations and the persistence of corporate financial performance. *Strategic Management Journal*, *30*(8), 895–907.

Christensen, C. M., & Bower, J. L. (1996). Customer power, strategic investment, and the failure of leading firms. *Strategic Management Journal*, *17*(3), 197–218.

Claver, E., Molina, J., & Tarí, J. (2002). Firm and industry effects on firm profitability: A Spanish empirical analysis. *European Management Journal*, *20*(3), 321–328.

Coff, R. W. (1999). When competitive advantage doesn't lead to performance: The resource-based view and stakeholder bargaining power. *Organization Science*, *10*(2), 119–133.

Cohen, M. D., & Bacdayan, P. (1994). Organizational routines are stored as procedural memory: Evidence from a laboratory study. *Organization Science*, *5*(4), 554–568.

Cohen, M. D., Burkhart, R., Dosi, G., Egidi, M., Marengo, L., Warglien, M., & Winter, S. (1996). Routines and other recurring action patterns of organizations: Contemporary research issues. *Industrial and Corporate Change*, *5*(3), 653–698.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, *35*(1), 128–152.

Colbert, B. A. (2004). The complex resource-based view: Implications for theory and practice in strategic human resource management. *Academy of Management Review*, *29*(3), 341–358.

Collis, D. J. (1991). A resource-based analysis of global competition: The case of the bearings industry. *Strategic Management Journal*, *12*, 49–68.

Collis, D. J. (1994). Research note: How valuable are organizational capabilities? *Strategic Management Journal*, *15*, 143–152.

Collis, D. J., & Montgomery, C. A. (1995). Competing on resources: Strategy in the 1990s. *Harvard Business Review*, *73*(4), 118–128.

Conner, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *Journal of Management*, *17*(1), 121–154.

Conner, K. R., & Prahalad, C. K. (1996). A resource-based theory of the firm: Knowledge versus opportunism. *Organization Science*, *7*(5), 477–501.

Cooper, R. G., & Kleinschmidt, E. J. (1987). New products: What separates winners from losers? *Journal of Product Innovation Management*, *4*(3), 169–184.

Copeland, T. E., Koller, T., & Murrin, J. (2000). *Valuation: Measuring and managing the value of companies*. Wiley frontiers in finance (3rd ed.). New York: Wiley.

Corbin, J. M., & Strauss, A. L. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Los Angeles, CA: Sage Publications.

Coyne, K., Hall, S., & Gorman Clifford, P. (1997). Is your core competence a mirage? *McKinsey Quarterly*, (1), 40–55.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed method approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Daellenbach, U. S., & Rouse, M. J. (2007). Ten years after: Some suggestions for future resource-based view research. In D. J. Ketchen & D. D. Bergh (Eds.), *Research methodology in strategy and management* (Vol. 4, pp. 3–18). Bingley, UK: Emerald Group Publishing.

Damanpour, F. (1987). The adoption of technological, administrative, and ancillary innovations: Impact of organizational factors. *Journal of Management*, *13*(4), 675–688.

Damanpour, F. (1992). Organizational size and innovation. *Organization Studies*, *13*(3), 375–402.

Damanpour, F. (1996). Organizational complexity and innovation: Developing and testing multiple contingency models. *Management Science*, *42*(5), 693–716.

Damanpour, F., & Evan, W. M. (1984). Organizational innovation and performance: The problem of "organizational lag." *Administrative Science Quarterly*, *29*(3), 392–409.

Danneels, E. (2002). The dynamics of product innovation and firm competences. *Strategic Management Journal*, *23*(12), 1095–1121.

Das, T. K., & Teng, B.-S. (1996). Risk types and inter-firm alliance structures. *Journal of Management Studies*, *33*(6), 827–843.

Das, T. K., & Teng, B.-S. (1998). Resource and risk management in the strategic alliance making process. *Journal of Management*, *24*(1), 21–42.

Das, T. K., & Teng, B.-S. (2000a). A resource-based theory of strategic alliances. *Journal of Management*, *26*(1), 31 –61.

Das, T. K., & Teng, B.-S. (2000b). Instabilities of strategic alliances: An internal tensions perspective. *Organization Science*, *11*(1), 77–101.

David, R. J., & Han, S.-K. (2004). A systematic assessment of the empirical support for transaction cost economics. *Strategic Management Journal*, *25*(1), 39–58.

Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, *58*(4), 37–52.

Day, G. S. (1999). Misconceptions about market orientation. *Journal of Market - Focused Management*, *4*(1), 5–16.

Day, G. S. (2000). The market driven organization. *Direct Marketing*, *62*(9), 32–38.

Day, G. S. (2003). Creating a superior customer-relating capability. *MIT Sloan Management Review*, *44*(3), 77–83.

Deal, T. E., & Kennedy, A. A. (1982). *Corporate cultures: The rites and rituals of corporate life*. Reading, MA: Addison-Wesley Pub. Co.

DeCarolis, D. M., & Deeds, D. L. (1999). The impact of stocks and flows of organizational knowledge on firm performance: An empirical investigation of the biotechnology industry. *Strategic Management Journal*, *20*(10), 953–968.

Deephouse, D. L. (2000). Media reputation as a strategic resource: An integration of mass communication and resource-based theories. *Journal of Management*, *26*(6), 1091–1112.

Delery, J. E., & Shaw, J. D. (2001). The strategic management of people in work organizations: Review, synthesis, and extension. *Research in Personnel and Human Resources Management,*, (20), 165–197.

Demsetz, H. (1973). Industry structure, market rivalry, and public policy. *Journal of Law and Economics*, *16*(1), 1–9.

Denison, D. R., & Mishra, A. K. (1995). Toward a theory of organizational culture and effectiveness. *Organization Science*, *6*(2), 204–223.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005a). *The SAGE handbook of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Denzin, N. K., & Lincoln, Y. S. (2005b). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed., pp. 1–32). Thousand Oaks, CA: Sage Publications.

Dewar, R. D., & Dutton, J. E. (1986). The adoption of radical and incremental innovations: An empirical analysis. *Management Science*, *32*(11), 1422–1433.

Dichter, E. (1962). The world customer. *International Executive*, *4*(4), 25–27.

Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, *35*(12), 1504–1511.

Dowling, G. R. (2001). *Creating corporate reputations: Identity, image, and performance*. Oxford ; New York: Oxford University Press.

Drucker, P. F. (1985). *Innovation and entrepreneurship: practice and principles* (1st ed.). New York: Harper & Row.

Durand, T. (1997). Strategizing for innovation: Competence analysis in assessing strategic change. In A. Heene & R. Sanchez (Eds.), *Competence-based strategic management*, The strategic management series (pp. 127–150). Chichester, UK: Wiley.

Dyer, J. H. (1997). Effective interfirm collaboration: How firms minimize transaction costs and maximize transaction value. *Strategic Management Journal*, *18*(7), 535–556.

Dyer, J. H., Kale, P., & Singh, H. (2001). How to make strategic alliances work. *MIT Sloan Management Review*, *42*(4), 37–43.

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

Easterby-Smith, M., Thorpe, R., & Lowe, A. (2002). *Management research: An introduction*. SAGE series in management research. London: Sage Publications.

Eberl, M., & Schwaiger, M. (2005). Corporate reputation: Disentangling the effects on financial performance. *European Journal of Marketing*, *39*(7/8), 838–854.

Eden, C. (1990). Strategic thinking with computers. *Long Range Planning*, *23*(6), 35–43.

Eden, C., & Ackerman, F. (2010). Decision making in groups: Theory and practice. In P. C. Nutt & D. C. Wilson (Eds.), *Handbook of decision making* (pp. 231–272). Chichester, UK: Wiley.

Eden, C., & Ackermann, F. (1998). *Making strategy: The journey of strategic management*. London: Sage Publications.

Eden, C., & Ackermann, F. (2001). Group decision and negotiation in strategy making. *Group Decision and Negotiation*, *10*(2), 119–140.

Eden, C., & Ackermann, F. (2010). Competences, distinctive competences, and core competences. *A focused issue on identifying, building, and linking competences*, Research in competence-based management (Vol. 5, pp. 3–33). Bingley, UK: Emerald Group Publishing.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, *14*(4), 532–550.

Eisenhardt, K. M., & Martin, J. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, *21*(10/11), 1105–1121.

Eisenhardt, K. M., & Santos, F. M. (2006). Knowledge-based view: A new theory of strategy? In A. M. Pettigrew, R. Whittington, & H. Thomas (Eds.), *Handbook of strategy and management* (pp. 139–164). SAGE.

Eisenhardt, K. M., & Schoonhoven, C. B. (1996). Resource-based view of strategic alliance formation: Strategic and social effects in entrepreneurial firms. *Organization Science*, *7*(2), 136–150.

Epstein, B. J., & Mirza, A. A. (2005). *Wiley IFRS 2005 interpretation and application of international accounting and financial reporting standards*. Hoboken, NJ: Wiley.

Ettlie, J. E., Bridges, W. P., & O'Keefe, R. D. (1984). Organization strategy and structural differences for radical versus incremental innovation. *Management Science*, *30*(6), 682–695.

Ettlie, J. E., & Reza, E. M. (1992). Organizational integration and process innovation. *Academy of Management Journal*, *35*(4), 795–827.

Fahy, J. (2000). The resource-based view of the firm: Some stumbling-blocks on the road to understanding sustainable competitive advantage. *Journal of European Industrial Training*, *24*(2-4), 94–104.

Fahy, J. (2002). A resource-based analysis of sustainable competitive advantage in a global environment. *International Business Review*, *11*(1), 57–77.

Fahy, J., & Smithee, A. (1999). Strategic marketing and the resource based view of the firm. *Academy of Marketing Science Review*, *10*, 1–20.

Farquhar, P. H. (1989). Managing brand equity. *Marketing Research*, *1*(3), 24–33.

Farquhar, P. H. (1990). Managing brand equity. *Journal of Advertising Research*, *30*(4), RC–7–RC–12.

Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadership: Top executives and their effects on organizations*. West's strategic management series. St. Paul, MN: West Pub. Co.

Fiol, C. M. (1991). Managing culture as a competitive resource: An identity-based view of sustainable competitive advantage. *Journal of Management*, *17*(1), 191–211.

Fombrun, C. J. (1996). *Reputation: Realizing value from the corporate image*. Boston, MA: Harvard Business School Press.

Fombrun, C. J. (2001). Corporate reputations as economic assets. In M. A. Hitt, R. E. Freeman, & J. S. Harrison (Eds.), *The Blackwell handbook of strategic management*, Handbooks in management (pp. 289–312). Oxford, UK: Wiley-Blackwell.

Fombrun, C. J., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management Journal*, *33*(2), 233–258.

Fontana, A., & Frey, J. H. (2008). The interview: From neutral stance to political involvement. *Collecting and interpreting qualitative materials* (3rd ed., pp. 115–159). Thousand Oaks, CA: Sage Publications.

Foss, N. J. (1993). Theories of the firm: Contractual and competence perspectives. *Journal of Evolutionary Economics*, *3*(2), 127–144.

Foss, N. J. (Ed.). (1997). *Resources, firms, and strategies: A reader in the resource-based perspective*. Oxford management readers. Oxford: Oxford University Press.

Foss, N. J. (1998). The resource-based perspective: An assessment and diagnosis of problems. *Scandinavian Journal of Management*, *14*(3), 133–149.

Foss, N. J. (2000). Equilibrium vs. evolution in the resource-based perspective. The conflicting legacies of Demsetz and Penrose. In N. J. Foss & P. L. Robertson (Eds.), *Resources, technology and strategy* (1st ed., pp. 11–30). London: Routledge.

Foss, N. J., & Ishikawa, I. (2007). Towards a dynamic resource-based view: Insights from Austrian capital and entrepreneurship theory. *Organization Studies*, *28*(5), 749–772.

Foss, N. J., Klein, P. G., Kor, Y. Y., & Mahoney, J. T. (2008). Entrepreneurship, subjectivism, and the resource-based view: Toward a new synthesis. *Strategic Entrepreneurship Journal*, *2*(1), 73–94.

Foss, N. J., Knudsen, C., & Montgomery, C. A. (1995). An exploration of common ground: Integrating evolutionary and strategic theories of the firm. In C. A. Montgomery (Ed.), *Resource-based and evolutionary theories of the firm: Towards a synthesis* (pp. 1–17). Boston, MA: Kluwer Academic Publishers.

Foss, N. J., & Knudsen, T. (2003). The resource-based tangle: Towards a sustainable explanation of competitive advantage. *Managerial and Decision Economics*, *24*(4), 291–307.

Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, *24*(4), 343–353.

Frynas, J. G., Mellahi, K., & Pigman, G. A. (2006). First mover advantages in international business and firm-specific political resources. *Strategic Management Journal*, *27*(4), 321–345.

Gagliardi, P. (1986). The creation and change of organizational cultures: A conceptual framework. *Organization Studies*, *7*(2), 117–134.

Galbreath, J. (2004). *Determinants of firm success: A resource-based analysis* (Doctoral dissertation). Curtin University of Technology, Perth, Australia.

Galbreath, J., & Galvin, P. (2004). Which resources matter? A fine-grained test of the resource-based view of the firm. *Academy of Management Proceedings*, *2004*(1), L1–L6.

Galbreath, J., & Galvin, P. (2008). Firm factors, industry structure and performance variation: New empirical evidence to a classic debate. *Journal of Business Research*, *61*(2), 109–117.

Galunic, D. C., & Eisenhardt, K. M. (2001). Architectural innovation and modular corporate forms. *Academy of Management Journal*, *44*(6), 1229–1249.

Galunic, D. C., & Rodan, S. (1998). Resource recombinations in the firm: Knowledge structures and the potential for Schumpeterian innovation. *Strategic Management Journal*, *19*(12), 1193–1201.

Gambardella, A., & McGahan, A. M. (2010). Business-model innovation: General purpose technologies and their implications for industry structure. *Long Range Planning*, *43*(2–3), 262–271.

Ganuza, J.-J., Llobet, G., & Domínguez, B. (2009). R&D in the pharmaceutical industry: A world of small innovations. *Management Science*, *55*(4), 539–551.

García-Canal, E., Duarte, C. L., Criado, J. R., & Llaneza, A. V. (2002). Accelerating international expansion through global alliances: A typology of cooperative strategies. *Journal of World Business*, *37*(2), 91–107.

Ghauri, P. N., & Grønhaug, K. (2005). *Research methods in business studies: A practical guide* (3rd ed.). Harlow, UK: Financial Times Prentice Hall.

Gilbert, J. T., & Birnbaum-More, P. H. (1996). Innovation timing advantages: From economic theory to strategic application. *Journal of Engineering and Technology Management*, *12*(4), 245–266.

Girod-Séville, M., & Perret, V. (2001). Epistemological foundations. In R. A. Thiétart (Ed.), *Doing management research: A comprehensive guide* (pp. 13–30). London: SAGE.

Given, L. M. (Ed.). (2008). *The SAGE encyclopedia of qualitative research methods*. Los Angeles, CA: Sage Publications.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine Pub. Co.

Glaser, B. G., & Strauss, A. L. (1974). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine Publishing Company.

Glesne, C. (1999). *Becoming qualitative researchers: An introduction* (2nd ed.). New York: Longman.

Godfrey, P. C., & Hill, C. W. L. (1995). The problem of unobservables in strategic management research. *Strategic Management Journal*, *16*(7), 519–533.

Goldberg, M. E., & Hartwick, J. (1990). The effects of advertiser reputation and extremity of advertising claim on advertising effectiveness. *Journal of Consumer Research*, *17*(2), 172–179.

Gordon, G. G. (1991). Industry determinants of organizational culture. *Academy of Management Review*, *16*(2), 396–415.

Gordon, G. G., & DiTomaso, N. (1992). Predicting corporate performance from organizational culture. *Journal of Management Studies*, *29*(6), 783–798.

Gorman, M. E. (2002). Types of knowledge and their roles in technology transfer. *The Journal of Technology Transfer*, *27*(3), 219–231.

Gottschalg, O., & Zollo, M. (2007). Interest alignment and competitive advantage. *Academy of Management Review*, *32*(2), 418–437.

Govindarajan, V., & Gupta, A. K. (2001). Strategic innovation: A conceptual road map. *Business Horizons*, *44*(4), 3–12.

Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *The American Journal of Sociology*, *91*(3), 481–510.

Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, *33*(3), 114–35.

Grant, R. M. (1996a). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, *17*, 109–122.

Grant, R. M. (1996b). Prospering in dynamically-competitive environments: Organizational capability as knowledge integration. *Organization Science*, *7*(4), 375–387.

Grant, R. M. (1997). The knowledge-based view of the firm: Implications for management practice. *Long Range Planning*, *30*(3), 450–454.

Grant, R. M. (2008). *Contemporary strategy analysis* (6th ed.). Malden, MA: Blackwell Publishing.

Grant, R. M., & Baden-Fuller, C. (1995). A knowledge-based theory of inter-firm collaboration. *Academy of Management Best Papers Proceedings*, 17–21.

Grant, R. M., & Baden-Fuller, C. (2004). A knowledge accessing theory of strategic alliances. *Journal of Management Studies*, *41*(1), 61–84.

Gray, E. R., & Balmer, J. M. T. (1998). Managing corporate image and corporate reputation. *Long Range Planning*, *31*(5), 695–702.

Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, *26*(3), 463–488.

Groth, J. (1995). Important factors in the sale and pricing of services. *Management Decision*, *33*(7), 29–34.

Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed., pp. 191–215). Thousand Oaks, CA: Sage Publications.

Gulati, R. (1995). Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Academy of Management Journal*, *38*(1), 85–112.

Gulati, R. (1998). Alliances and networks. *Strategic Management Journal*, *19*(4), 293–317.

Gulati, R., & Singh, H. (1998). The architecture of cooperation: Managing coordination costs and appropriation concerns in strategic alliances. *Administrative Science Quarterly*, *43*(4), 781–814.

Gundlach, G. T., Achrol, R. S., & Mentzer, J. T. (1995). The structure of commitment in exchange. *Journal of Marketing*, *59*(1), 78–92.

Hagedoorn, J. (1993). Understanding the rationale of strategic technology partnering: Interorganizational modes of cooperation and sectoral differences. *Strategic Management Journal*, *14*(5), 371–385.

Hagedoorn, J., & Schakenraad, J. (1994). The effect of strategic technology alliances on company performance. *Strategic Management Journal*, *15*(4), 291–309.

Hall, R. (1992). The strategic analysis of intangible resources. *Strategic Management Journal*, *13*(2), 135–144.

Hall, R. (1993). A framework linking intangible resources and capabilities to sustainable competitive advantage. *Strategic Management Journal*, *14*(8), 607–618.

Hambrick, D. C. (1987). The top management team: Key to strategic success. *California Management Review*, *30*(1), 88–108.

Hamel, G. (1991). Competition for competence and inter-partner learning within international strategic alliances. *Strategic Management Journal*, *12*, 83–103.

Hamel, G. (1994). The concept of core competence. In G. Hamel & A. Heene (Eds.), *Competence-based competition*, The strategic management series (pp. 11–33). Chichester, UK: Wiley.

Hamel, G., & Heene, A. (Eds.). (1994). *Competence-based competition*. The strategic management series. Chichester, UK: Wiley.

Hammer, M., & Champy, J. (1993). *Reengineering the corporation: A manifesto for business revolution* (1st ed.). New York: HarperBusiness.

Han, C. M., & Terpstra, V. (1988). Country-of-origin effects for uni-national and bi-national products. *Journal of International Business Studies*, *19*(2), 235–255.

Handelszeitung. (2004). *Top 2004: Die grössten Unternehmen in der Schweiz*. Zürich: Handelszeitung und Finanzrundschau.

Handelszeitung. (2005). *Top 2005: Die grössten Unternehmen in der Schweiz*. Zürich: Handelszeitung und Finanzrundschau.

Handelszeitung. (2006). *Top 2006: Die grössten Unternehmen in der Schweiz*. Zürich: Handelszeitung und Finanzrundschau.

Hansen, G. S., & Wernerfelt, B. (1989). Determinants of firm performance: The relative importance of economic and organizational factors. *Strategic Management Journal*, *10*(5), 399–411.

Hansen, M. H., Hoskisson, R. E., & Barney, J. B. (2008). Competitive advantage in alliance governance: resolving the opportunism minimization–gain maximization paradox. *Managerial and Decision Economics*, *29*(2-3), 191–208.

Hardy, C., & Phillips. (1998). Strategies of engagement: Lessons from the critical examination of collaboration and conflict in an interorganizational domain. *Organization Science*, *9*(2), 217–230.

Harrigan, K. R. (1988). Joint ventures and competitive strategy. *Strategic Management Journal*, *9*(2), 141–158.

Harrison, J. S., Bosse, D. A., & Phillips, R. A. (2010). Managing for stakeholders, stakeholder utility functions, and competitive advantage. *Strategic Management Journal*, *31*(1), 58–74.

Hatch, N. W., & Dyer, J. H. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal*, *25*(12), 1155–1178.

Hawawini, G., Subramanian, V., & Verdin, P. (2003). Is performance driven by industry- or firm-specific factors? A new look at the evidence. *Strategic Management Journal*, *24*(1), 1–16.

Heene, A., & Sanchez, R. (Eds.). (1997). *Competence-based strategic management*. The strategic management series. Chichester, UK: Wiley.

Helfat, C. E. (1997). Know-how and asset complementarity and dynamic capability accumulation: The case of R&D. *Strategic Management Journal*, *18*(5), 339–360.

Helfat, C. E., & Peteraf, M. A. (2003). The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal*, *24*(10), 997–1010.

Helfat, C. E., & Peteraf, M. A. (2009). Understanding dynamic capabilities: Progress along a developmental path. *Strategic Organization*, *7*(1), 91 –102.

Helfat, C. E., & Raubitschek, R. S. (2000). Product sequencing: co-evolution of knowledge, capabilities and products. *Strategic Management Journal*, *21*(10-11), 961–979.

Helfat, C., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D. J., & Winter, S. G. (2007). *Dynamic capabilities: Understanding strategic change in organizations*. Malden, MA: Blackwell Publishing.

Helper, S. (1991). How much has really changed between U.S. automakers and their suppliers? *Sloan Management Review*, *32*(4), 15–28.

Henderson, J., & Leleux, B. (2005). Corporate venture capital: Leveraging competences, hedging uncertainty, or creating an ecosystem? In R. Sanchez & A. Heene (Eds.), *A focused issue on understanding growth: Entrepreneurship, innovation, and diversification*, Research in competence-based management (Vol. 3, pp. 43–68). London: Elsevier Ltd.

Henderson, R., & Cockburn, I. (1994). Measuring competence? Exploring firm effects in pharmaceutical research. *Strategic Management Journal*, *15*, 63–84.

Henderson, R. M., & Clark, K. B. (1990). Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms. *Administrative Science Quarterly*, *35*(1), 9–30.

Hennart, J.-F. (1988). A transaction costs theory of equity joint ventures. *Strategic Management Journal*, *9*(4), 361–374.

Hennart, J.-F. (1991). The transaction costs theory of joint ventures: An empirical study of Japanese subsidiaries in the united states. *Management Science*, *37*(4), 483–497.

Hill, C. W. L., & Jones, G. R. (1992). *Strategic management: An integrated approach* (2nd ed.). Boston, MA: Houghton Mifflin Co.

Hill, C. W. L., & Jones, G. R. (2010). *Strategic management: An integrated approach* (9th Ed.). Australia: South-Western Cengage Learning.

Hill, R. C., & Hellriegel, D. (1994). Critical contingencies in joint venture management: Some lessons from managers. *Organization Science*, *5*(4), 594–607.

Hillman, A. J., & Keim, G. D. (2001). Shareholder value, stakeholder management, and social issues: What's the bottom line? *Strategic Management Journal*, *22*(2), 125–139.

Von Hippel, E. (1986). Lead users: A source of novel product concepts. *Management Science*, *32*(7), 791–805.

Von Hippel, E. (1988). *The sources of innovation*. New York: Oxford University Press.

Hitt, M. A., Bierman, L., Shimizu, K., & Kochhar, R. (2001). Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective. *Academy of Management Journal*, *44*(1), 13–28.

Hitt, M. A., Dacin, M. T., Levitas, E., Arregle, J.-L., & Borza, A. (2000). Partner selection in emerging and developed market contexts: Resource-based and organizational learning perspectives. *Academy of Management Journal*, *43*, 449–467.

Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (1997). *Strategic management: Competitiveness and globalization: Concepts* (2nd ed.). St. Paul, MN: West Pub. Co.

Hodkinson, K. (1987). *Protecting and exploiting new technology and designs*. London: E. & F.N. Spon.

Hofer, C. W., & Schendel, D. (1978). *Strategy formulation: Analytical concepts*. St. Paul, MN: West Pub. Co.

Hofstede, G. H., & Hofstede, G. J. (2005). *Cultures and organizations: Software of the mind* (Rev. and expanded 2nd ed.). New York: McGraw-Hill.

Holmstrom, B. (1979). Moral hazard and observability. *The Bell Journal of Economics*, *10*(1), 74–91.

Holmstrom, B., & Roberts, J. (1998). The boundaries of the firm revisited. *The Journal of Economic Perspectives*, *12*(4), 73–94.

Hong-bumm, K., Kim, W. G., & An, J. A. (2003). The effect of consumer-based brand equity on firms' financial performance. *The Journal of Consumer Marketing*, *20*(4/5), 335–351.

Hoopes, D. G., Madsen, T. L., & Walker, G. (2003). Guest editors' introduction to the special issue: Why is there a resource-based view? Toward a theory of competitive heterogeneity. *Strategic Management Journal*, *24*(10), 889–902.

Hoopes, D. G., & Postrel, S. (1999). Shared knowledge, "glitches," and product development performance. *Strategic Management Journal*, *20*(9), 837–865.

Hoskisson, R. E., Hitt, M. A., Wan, W. P., & Yiu, D. (1999). Theory and research in strategic management: Swings of a pendulum. *Journal of Management*, *25*(3), 417–456.

Hultink, E. J., Hart, S., Robben, H. S. J., & Griffin, A. (2000). Launch decisions and new product success: An empirical comparison of consumer and industrial products. *The Journal of Product Innovation Management*, *17*(1), 5–23.

Hurmelinna, P., Kyläheiko, K., & Jauhiainen, T. (2007). The Janus face of the appropriability regime in the protection of innovations: Theoretical re-appraisal and empirical analysis. *Technovation*, *27*(3), 133–144.

Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, *38*(3), 635–672.

Hutt, M. D., Stafford, E. R., Walker, B. A., & Reingen, P. H. (2000). Case study: Defining the social network of a strategic alliance. *Sloan Management Review*, *41*(2), 51–62.

Ibarra, H. (1993). Network centrality, power, and innovation involvement: Determinants of technical and administrative roles. *Academy of Management Journal*, *36*(3), 471–501.

Ibert, J., Baumard, P., Donada, C., & Xuereb, J.-M. (2001). Data collection and managing the data source. In R. A. Thiétart (Ed.), *Doing management research: A comprehensive guide* (pp. 172–195). London: SAGE.

Ireland, R. D., Hitt, M. A., & Vaidyanath, D. (2002). Alliance management as a source of competitive advantage. *Journal of Management*, *28*(3), 413–446.

Itami, H., & Roehl, T. W. (1987). *Mobilizing invisible assets*. Cambridge, MA: Harvard University Press.

Jansen, J. J. P., Van den Bosch, F. A. J., & Volberda, H. W. (2005). Exploratory innovation, exploitative innovation, and ambidexterity: The impact of environmental and organizational antecedents. *Schmalenbach Business Review*, *57*(4), 351–363.

Jarillo, J. C. (1988). On strategic networks. *Strategic Management Journal*, *9*(1), 31–41.

Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, *57*(3), 53–70.

Jenkins, M., & Floyd, S. (2001). Trajectories in the evolution of technology: A multi-level study of competition in formula 1 racing. *Organization Studies*, *22*(6), 945–969.

Jenkins, M., & Johnson, G. (1997). Linking managerial cognition and organizational performance: A preliminary investigation using causal maps. *British Journal of Management*, *8*(2), S77–S90.

Johnson, G., Melin, L., & Whittington, R. (2003). Guest editors' introduction: Micro strategy and strategizing: Towards an activity-based view. *Journal of Management Studies*, *40*(1), 3–22.

Kale, P., Dyer, J. H., & Singh, H. (2002). Alliance capability, stock market response, and long-term alliance success: The role of the alliance function. *Strategic Management Journal*, *23*(8), 747–767.

Kale, P., & Singh, H. (2009). Managing strategic alliances: What do we know now, and where do we go from here? *Academy of Management Perspectives*, *23*(3), 45–62.

Kale, P., Singh, H., & Perlmutter, H. (2000). Learning and protection of proprietary assets in strategic alliances: Building relational capital. *Strategic Management Journal*, *21*(3), 217–237.

Kaluzny, A. D., Veney, J. E., & Gentry, J. T. (1974). Innovation of health services: A comparative study of hospitals and health departments. *Milbank Memorial Fund Quarterly/Health and Society*, *52*(1), 51–82.

Kamakura, W. A., & Russell, G. J. (1993). Measuring brand value with scanner data. *International Journal of Research in Marketing*, *10*(1), 9–22.

Kanter, R. M. (1989). Swimming in newstreams: Mastering innovation dilemmas. *California Management Review*, *31*(4), 45–69.

Kaplan, S., Schenkel, A., von Krogh, G., & Weber, C. (2001). *Knowledge-based theories of the firm in strategic management: A review and extension* (Working Paper No. 4216-01) (pp. 1–41). Boston, MA: MIT Sloan.

Karnoe, P. (1995). Competence as process and the social embeddedness of competence building. *Academy of Management Journal*, 427–431.

Keller, K. L. (1991). *Conceptualizing, measuring, and managing customer-based brand equity* (Research Paper No. 1140) (p. 44). Stanford, CA: Stanford Business School.

Keller, K. L. (1993). Conceptualizing, measuring, managing customer-based brand equity. *Journal of Marketing*, *57*(1), 1–22.

Keller, K. L. (2003). Understanding brands, branding and brand equity. *Interactive Marketing*, *5*(1), 7–20.

Keller, K. L., & Lehmann, D. R. (2006). Brands and branding: Research findings and future priorities. *Marketing Science*, *25*(6), 740–759.

Kessides, I. N. (1990). Internal versus external market conditions and firm profitability: An exploratory model. *The Economic Journal*, *100*(402), 773–792.

Kimberly, J. R., & Evanisko, M. J. (1981). Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of Management Journal*, *24*(4), 689–713.

King, A. W., Fowler, S. W., & Zeithaml, C. P. (2001). Managing organizational competencies for competitive advantage: The middle-management edge. *Academy of Management Executive*, *15*(2), 95–106.

King, A. W., & Zeithaml, C. P. (2003). Measuring organizational knowledge: A conceptual and methodological framework. *Strategic Management Journal*, *24*(8), 763–772.

Kissler, G. D. (1994). The new employment contract. *Human Resource Management*, *33*(3), 335–352.

Klein, B. (1996). Why hold-ups occur: The self-enforcing range of contractual relationships. *Economic Inquiry*, *34*(3), 444–463.

Klein, B., Crawford, R. G., & Alchian, A. A. (1978). Vertical integration, appropriable rents, and the competitive contracting process. *Journal of Law and Economics*, *21*(2), 297–326.

Knight, K. E. (1967). A descriptive model of the intra-firm innovation process. *Journal of Business*, *40*(4), 478–496.

Knott, A. M. (2003). The organizational routines factor market paradox. *Strategic Management Journal*, *24*(10), 929–943.

Kogut, B. (1988). Joint ventures: Theoretical and empirical perspectives. *Strategic Management Journal*, *9*(4), 319–332.

Kogut, B. (1991). Joint ventures and the option to expand and acquire. *Management Science*, *37*(1), 19–33.

Kogut, B. (2000). The network as knowledge: Generative rules and the emergence of structure. *Strategic Management Journal*, *21*(3), 405–425.

Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, *3*(3), 383–397.

Kogut, B., & Zander, U. (1996). What firms do? Coordination, identity, and learning. *Organization Science*, *7*(5), 502–518.

Kor, Y. Y. (2003). Experience-based top management team competence and sustained growth. *Organization Science*, *14*(6), 707–719.

Kor, Y. Y., & Mahoney, J. T. (2000). Penrose's resource-based approach: The process and product of research creativity. *Journal of Management Studies*, *37*(1), 109–139.

Kor, Y. Y., & Mahoney, J. T. (2004). Edith Penrose's (1959) Contributions to the Resource-based View of Strategic Management. *Journal of Management Studies*, *41*(1), 183–191.

Kotler, P. (1991). *Marketing management: Analysis, planning, implementation, and control* (7th ed.). Englewood Cliffs, NJ: Prentice-Hall.

Kotler, P., Keller, K., Brady, M., Goodman, M., & Hansen, T. (2009). *Marketing management* (1st European Edition.). Harlow, UK: Pearson Prentice Hall.

Kotter, J. P., & Heskett, J. L. (1992). *Corporate culture and performance*. New York: Free Press.

Kraaijenbrink, J., Spender, J.-C., & Groen, A. J. (2010). The resource-based view: A review and assessment of its critiques. *Journal of Management*, *36*(1), 349 –372.

Kumar, N., Scheer, L., & Kotler, P. (2000). From market driven to market driving. *European Management Journal*, *18*(2), 129–142.

Lado, A. A., Boyd, N. G., & Wright, P. (1992). A competency-based model of sustainable competitive advantage: Toward a conceptual integration. *Journal of Management*, *18*(1), 77–91.

Lado, A. A., Boyd, N. G., Wright, P., & Kroll, M. (2006). Paradox and theorizing within the resource-based view. *Academy of Management Review*, *31*(1), 115–131.

Lado, A. A., & Wilson, M. C. (1994). Human resource systems and sustained competitive advantage: A competency-based perspective. *Academy of Management Review*, *19*(4), 699–727.

Landes, W. M., & Posner, R. A. (1987). Trademark law: An economic perspective. *Journal of Law and Economics*, *30*(2), 265–309.

Landon, S., & Smith, C. E. (1997). The use of quality and reputation indicators by consumers: The case of bordeaux wine. *Journal of Consumer Policy*, *20*(3), 289–323.

Lane, P. J., & Lubatkin, M. (1998). Relative absorptive capacity and interorganizational learning. *Strategic Management Journal*, *19*(5), 461–477.

Langlois, R. N. (1992). Transaction-cost economics in real time. *Ind Corp Change*, *1*(1), 99–127.

Lavie, D. (2006). The competitive advantage of interconnected firms: An extension of the resource-based view. *Academy of Management Review*, *31*(3), 638–658.

Lee, C., Lee, K., & Pennings, J. M. (2001). Internal capabilities, external networks, and performance: A study on technology-based ventures. *Strategic Management Journal*, *22*(6/7), 615–640.

Lei, D., Hitt, M. A., & Bettis, R. (1996). Dynamic core competences through meta-learning and strategic context. *Journal of Management*, *22*(4), 549–569.

Leiponen, A. (2005). Core complementarities of the corporation: organization of an innovating firm. *Managerial and Decision Economics*, *26*(6), 351–365.

Leonard-Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, *13*(S1), 111–125.

Lev, B. (2001). *Intangibles: Management, measurement, and reporting*. Washington, DC: Brookings Institution Press.

Levinthal, D. A. (1995). Strategic management and the exploration of diversity. In C. A. Montgomery (Ed.), *Resource-based and evolutionary theories of the firm: Towards a synthesis* (pp. 19–42). Boston, MA: Kluwer Academic Publishers.

Levitas, E., & Chi, T. (2002). Rethinking Rouse and Daellenbach's rethinking: Isolating vs. testing for sources of sustainable competitive advantage. *Strategic Management Journal*, *23*(10), 957–962.

Levitas, E., & Ndofor, H. A. (2006). What to do with the resource-based view: A few suggestions for what ails the RBV that supporters and opponents might accept. *Journal of Management Inquiry*, *15*(2), 135–144.

Li, W.-K., & Wyer, R. S. J. (1994). The role of country of origin in product evaluations: Informational and standard-of-comparison effects. *Journal of Consumer Psychology (Lawrence Erlbaum Associates)*, *3*(2), 187–212.

Lieberman, M. B., & Montgomery, D. B. (1988). First-mover advantages. *Strategic Management Journal*, *9*, 41–58.

Lieberman, M. B., & Montgomery, D. B. (1998). First-mover (dis)advantages: Retrospective and link with the resource-based view. *Strategic Management Journal*, *19*(12), 1111–1125.

Liebeskind, J. P. (1996). Knowledge, strategy, and the theory of the firm. *Strategic Management Journal*, *17*, 93–107.

Liebeskind, J. P., Oliver, A. L., Zucker, L., & Brewer, M. (1996). Social networks, learning, and flexibility: Sourcing scientific knowledge in new biotechnology firms. *Organization Science*, *7*(4), 428–443.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications.

Lindemann, J. (2010). *The economy of brands*. Basingstoke: Palgrave Macmillan.

Lippman, S. A., & Rumelt, R. P. (1982). Uncertain imitability: An analysis of interfirm differences in efficiency under competition. *The Bell Journal of Economics*, *13*(2), 418–438.

Lippman, S. A., & Rumelt, R. P. (2003). A bargaining perspective on resource advantage. *Strategic Management Journal*, *24*(11), 1069–1086.

Lockett, A., Thompson, S., & Morgenstern, U. (2009). The development of the resource-based view of the firm: A critical appraisal. *International Journal of Management Reviews*, *11*(1), 9–28.

Loo, T., & Davies, G. (2006). Branding China: The ultimate challenge in reputation management? *Corporate Reputation Review*, *9*(3), 198–210.

Lorenzoni, G., & Lipparini, A. (1999). The leveraging of interfirm relationships as a distinctive organizational capability: A longitudinal study. *Strategic Management Journal*, *20*(4), 317–338.

Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, *21*(1), 135–172.

Lynn, G. S., Skov, R. B., & Abel, K. D. (1999). Practices that support team learning and their impact on speed to market and new product success. *The Journal of Product Innovation Management*, *16*(5), 439–454.

Madhok, A., & Tallman, S. B. (1998). Resources, transactions and rents: Managing value through interfirm collaborative relationships. *Organization Science*, *9*(3), 326–339.

Mahoney, J. T., & Pandian, J. R. (1992). The resource-based view within the conversation of strategic management. *Strategic Management Journal*, *13*(5), 363–380.

Makadok, R. (2001). Toward a synthesis of the resource-based and dynamic-capability views of rent creation. *Strategic Management Journal*, *22*(5), 387–401.

Makadok, R. (2011). The four theories of profit and their joint effects. *Journal of Management*, *37*(5), 1316 –1334.

Mansour, J. (1998). Core competence: What does it mean in practice? *Long Range Planning*, *31*(1), 60–71.

Marcoulides, G. A., & Heck, R. H. (1993). Organizational culture and performance: Proposing and testing a model. *Organization Science*, *4*(2), 209–225.

Marcus, A., & Geffen, D. (1998). The dialectics of competency acquisition: Pollution prevention in electric generation. *Strategic Management Journal*, *19*(12), 1145–1168.

Martin, J. (2002). *Organizational culture: Mapping the terrain*. Foundations for organizational science. Thousand Oaks, CA: Sage Publications.

Mascarenhas, B., Baveja, A., & Jamil, M. (1998). Dynamics of core competencies in leading multinational companies. *California Management Review*, *40*(4), 117–132.

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

Mata, F. J., Fuerst, W. L., & Barney, J. B. (1995). Information technology and sustained competitive advantage: A resource-based analysis. *MIS Quarterly*, *19*(4), 487–505.

Mauri, A. J., & Michaels, M. P. (1998). Firm and industry effects within strategic management: An empirical examination. *Strategic Management Journal*, *19*(3), 211–219.

Maxwell, J. A. (2005). *Qualitative research design: An interactive approach*. Applied social research methods series (2nd ed.). Thousand Oaks, CA: Sage Publications.

Mayer, K. J., & Argyres, N. S. (2004). Learning to contract: Evidence from the personal computer industry. *Organization Science*, *15*(4), 394–410.

McAllister, D. J. (1995). Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, *38*(1), 24–59.

McEvily, S. K., & Chakravarthy, B. (2002). The persistence of knowledge-based advantage: An empirical test for product performance and technological knowledge. *Strategic Management Journal*, *23*(4), 285–305.

McFadzean, E., O'Loughlin, A., & Shaw, E. (2005). Corporate entrepreneurship and innovation part 1: the missing link. *European Journal of Innovation Management*, *8*(3), 350 – 372.

McGahan, A. M., & Porter, M. E. (1997). How much does industry matter, really? *Strategic Management Journal*, *18*, 15–30.

McGrath, R. G., MacMillan, I. C., & Venkataraman, S. (1995). Defining and developing competence: A strategic process paradigm. *Strategic Management Journal*, *16*(4), 251–275.

McGuire, J. B., Schneeweis, T., & Branch, B. (1990). Perceptions of firm quality: A cause or result of firm performance. *Journal of Management*, *16*(1), 167–180.

McKelvey, B. (1997). Quasi-natural organization science. *Organization Science*, *8*(4), 352–380.

Mesquita, L., Anand, J., & Brush, T. (2008). Comparing the resource-based and relational views: Knowledge transfer and spillover in vertical alliances. *Strategic Management Journal*, *29*(9), 913–941.

Michalisin, M. D., Smith, R. D., & Kline, D. M. (1997). In search of strategic assets. *International Journal of Organizational Analysis*, *5*(4), 360–387.

Michalski, T. (2005). Corporate entrepreneurship from a competence-based management perspective. In R. Sanchez & A. Heene (Eds.), *A focused issue on understanding growth: Entrepreneurship, innovation, and diversification*, Research in competence-based management (Vol. 3, pp. 71–89). London: Elsevier Ltd.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Miller, D. (1996). A preliminary typology of organizational learning: Synthesizing the literature. *Journal of Management*, *22*(3), 485–505.

Mintzberg, H., Ahlstrand, B., & Lampel, J. (1998). *Strategy safari: A guided tour through the wilds of strategic management*. London: Prentice-Hall.

Misangyi, V. F., Elms, H., Greckhamer, T., & Lepine, J. A. (2006). A new perspective on a fundamental debate: A multilevel approach to industry, corporate, and business unit effects. *Strategic Management Journal*, *27*(6), 571–590.

Mitchell, V. L., & Zmud, R. W. (1999). The effects of coupling IT and work process strategies in redesign projects. *Organization Science*, *10*(4), 424–438.

Mitchell, W., & Singh, K. (1996). Survival of businesses using collaborative relationships to commercialize complex goods. *Strategic Management Journal*, *17*(3), 169–195.

Moingeon, B., Ramanantsoa, B., Métais, E., & Orton, J. D. (1998). Another look at strategy–structure relationships: The resource-based view. *European Management Journal*, *16*(3), 297–305.

Molina-Azorín, J. F. (2007). Mixed methods in strategy research: Applications and implications in the resource-based view. In D. J. Ketchen & D. D. Bergh (Eds.), *Research methodology in strategy and management* (Vol. 4, pp. 37–73). Bingley, UK: Emerald Group Publishing.

Montgomery, C. A. (1995). Of diamonds and rust: A new look at resources. In C. A. Montgomery (Ed.), *Resource-based and evolutionary theories of the firm: Towards a synthesis* (pp. 251–268). Boston, MA: Kluwer Academic Publishers.

Montgomery, C. A., & Wernerfelt, B. (1988). Diversification, Ricardian rents, and Tobin's q. *The RAND Journal of Economics*, *19*(4), 623–632.

Morgan, G., & Smircich, L. (1980). The case for qualitative research. *Academy of Management Review*, *5*(4), 491–500.

Mosakowski, E., & McKelvey, B. (1997). Predicting rent generation in competence-based competition. In A. Heene & R. Sanchez (Eds.), *Competence-based strategic management*, The strategic management series (pp. 65–85). Chichester, UK: Wiley.

Mowery, D. C., Oxley, J. E., & Silverman, B. S. (1996). Strategic alliances and interfirm knowledge transfer. *Strategic Management Journal*, *17*, 77–91.

Murphy, P. J., Cooke, R. A., & Lopez, Y. (2013). Firm culture and performance: Intensity's effects and limits. *Management Decision*, *51*(3), 661–679.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, *23*(2), 242–266.

Nanda, A. (1996). Resources, capabilities and competencies. In B. Moingeon & A. C. Edmondson (Eds.), *Organizational learning and competitive advantage*. London: Sage Publications.

Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, *54*(4), 20–35.

Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economic change*. Cambridge, MA: Harvard University Press.

Newbert, S. L. (2007). Empirical research on the resource-based view of the firm: An assessment and suggestions for future research. *Strategic Management Journal*, *28*(2), 121–146.

Nohria, N., & Gulati, R. (1996). Is slack good or bad for innovation? *Academy of Management Journal*, *39*(5), 1245–1264.

Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, 96–104.

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, *5*(1), 14–37.

Nonaka, I., & von Krogh, G. (2009). Tacit knowledge and knowledge conversion: Controversy and advancement in organizational knowledge creation theory. *Organization Science*, *20*(3), 635–652.

Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.

Normann, R. (1971). Organizational innovativeness: Product variation and reorientation. *Administrative Science Quarterly*, *16*(2), 203–215.

Nothnagel, K. (2008). *Empirical research within resource-based theory: A meta-analysis of the central propositions* (1. ed.). Wiesbaden: Gabler.

Ohmae, K. (1989). The global logic of strategic alliances. *Harvard Business Review*, *67*(2), 143–154.

Oster, S. M. (1990). *Modern competitive analysis*. New York: Oxford University Press.

Osterloh, M., & Frey, B. S. (2000). Motivation, knowledge transfer, and organizational forms. *Organization Science*, *11*(5), 538–550.

Oxley, J. E., & Sampson, R. C. (2004). The scope and governance of international R&D alliances. *Strategic Management Journal*, *25*(8/9), 723–749.

Park, C. S., & Srinivasan, V. (1994). A survey-based method for measuring and understanding brand. *Journal of Marketing Research*, *31*(2), 271–288.

Park, C. W., Jaworski, B. J., & Maclnnis, D. J. (1986). Strategic brand concept-image management. *Journal of Marketing*, *50*(4), 135–145.

Park, S. H., & Ungson, G. R. (1997). The effect of national culture, organizational complementarity, and economic motivation on joint venture dissolution. *Academy of Management Journal*, *40*(2), 279–307.

Parkhe, A. (1993). Strategic alliance structuring: A game theoretic and transaction cost examination of interfirm cooperation. *Academy of Management Journal*, *36*(4), 794–829.

Pelz, D. (1983). Quantitative case-histories of urban innovations - are there innovating stages. *IEEE Transactions on Engineering Management*, *30*(2), 60–67.

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

Penrose, E. T. (1960). The growth of the firm - a case study: The Hercules Powder company. *The Business History Review*, *34*(1), 1–23.

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, *14*(3), 179–191.

Peteraf, M. A., & Barney, J. B. (2003). Unraveling the resource-based tangle. *Managerial and Decision Economics*, *24*(4), 309–323.

Peteraf, M. A., & Bergen, M. E. (2003). Scanning dynamic competitive landscapes: A market-based and resource-based framework. *Strategic Management Journal*, *24*(10), 1027–1041.

Peters, T. J., & Waterman, R. H. (1982). *In search of excellence: Lessons from America's best-run companies* (1st ed.). New York: Harper & Row.

Peterson, R. A., & Jolibert, A. J. P. (1995). A meta-analysis of country-of-origin effects. *Journal of International Business Studies*, *26*(4), 883–900.

Petrick, J. A., Scherer, R. F., Brodzinski, J. D., Quinn, J. F., & Ainina, M. F. (1999). Global leadership skills and reputational capital: Intangible resources for sustainable competitive advantage. *Academy of Management Executive*, *13*(1), 58–69.

Pharr, J. M. (2005). Synthesizing country-of-origin research from the last decade: Is the concept still salient in an era of global brands? *Journal of Marketing Theory and Practice*, *13*(4), 34–45.

Pinch, S., Henry, N., Jenkins, M., & Tallman, S. (2003). From “industrial districts” to “knowledge clusters”: A model of knowledge dissemination and competitive advantage in industrial agglomerations. *Journal of Economic Geography*, *3*(4), 373–388.

Pisano, G. P., & Wheelwright, S. C. (1995). The new logic of high-tech R&D. *Harvard Business Review*, *73*(5), 93–105.

Pitt, M., & Clarke, K. (1999). Competing on competence: A knowledge perspective on the management of strategic innovation. *Technology Analysis & Strategic Management*, *11*(3), 301–316.

Polanyi, M. (1966). *The tacit dimension* (1st ed.). Garden City, NY: Doubleday.

Poppo, L., & Weigelt, K. (2000). A test of the resource-based model using baseball free agents. *Journal of Economics & Management Strategy*, *9*(4), 585–614.

Poppo, L., & Zenger, T. (2002). Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal*, *23*(8), 707–725.

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

Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: Free Press.

Porter, M. E. (1987). From competitive advantage to corporate strategy. *Harvard Business Review*, *65*(3), 43–59.

Porter, M. E. (1991). Towards a dynamic theory of strategy. *Strategic Management Journal*, *12*, 95–117.

Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, *86*(1), 78–93.

Powell, T. C. (1996). How much does industry matter? An alternative empirical test. *Strategic Management Journal*, *17*(4), 323–334.

Powell, T. C. (2001). Competitive advantage: Logical and philosophical considerations. *Strategic Management Journal*, *22*(9), 875–888.

Powell, T. C., & Dent-Micallef, A. (1997). Information technology as competitive advantage: The role of human, business, and technology resources. *Strategic Management Journal*, *18*(5), 375–405.

Powell, W. W., Koput, K. W., & Smith-Doerr, L. (1996). Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology. *Administrative Science Quarterly*, *41*(1), 116–145.

Prahalad, C. K., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, *68*(3), 79–91.

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

Priem, R. L., & Butler, J. E. (2001b). Tautology in the resource-based view and the implications of externally determined resource value: Further comments. *Academy of Management Review*, *26*(1), 57–66.

Priyono, A., Tejada, D., & Sanchez, R. (2010). An expanded view of "management processes" in the systems view of organizations. *A focused issue on identifying, building, and linking competences*, Research in competence-based management (Vol. 5, pp. 203–227). Bingley, UK: Emerald Group Publishing.

Quinn, J. B. (2000). Outsourcing innovation: The new engine of growth. *Sloan Management Review*, *41*(4), 13–28.

Ranft, A. L., & Lord, M. D. (2002). Acquiring new technologies and capabilities: A grounded model of acquisition implementation. *Organization Science*, *13*(4), 420–441.

Rao, H. (1994). The social construction of reputation: Certification contests, legitimation, and the survival of organizations in the American automobile industry: 1895-1912. *Strategic Management Journal*, *15*, 29–44.

Ray, S., & Ramakrishnan, K. (2006). Resources, competences and capabilities conundrum: A back-to-basics call. *Decision*, *33*(2), 1–24.

Reed, R., & DeFillippi, R. J. (1990). Causal ambiguity, barriers to imitation, and sustainable competitive advantage. *Academy of Management Review*, *15*(1), 88–102.

Reitzig, M. (2004). Strategic management of intellectual property. *MIT Sloan Management Review*, *45*(3), 35–40.

Remenyi, D., Williams, B., Money, A., & Swartz, E. (1998). *Doing research in business and management: An introduction to process and method*. London: Sage.

Ren, L., Xie, G., & Krabbendam, K. (2010). Sustainable competitive advantage and marketing innovation within firms: A pragmatic approach for Chinese firms. *Management Research Review*, *33*(1), 79 – 89.

Reuer, J. J., & Ariño, A. (2007). Strategic alliance contracts: Dimensions and determinants of contractual complexity. *Strategic Management Journal*, *28*(3), 313–330.

Ricardo, D. (1817). *On the principles of political economy and taxation*. London: John Murray.

Rindova, V. P. (1997). The image cascade and the formation of corporate reputations. *Corporate Reputation Review*, *1*(2), 188–194.

Rindova, V. P., & Petkova, A. P. (2007). When is a new thing a good thing? Technological change, product form design, and perceptions of value for product innovations. *Organization Science*, *18*(2), 217–232.

Rindova, V. P., Williamson, I. O., Petkova, A. P., & Sever, J. M. (2005). Being good or being known: An empirical examination of the dimensions, antecedents, and consequences of organizational reputation. *Academy of Management Journal*, *48*(6), 1033–1049.

Roberts, P. W., & Amit, R. (2003). The dynamics of innovative activity and competitive advantage: The case of Australian retail banking, 1981 to 1995. *Organization Science*, *14*(2), 107–122.

Roberts, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance. *Strategic Management Journal*, *23*(12), 1077–1093.

Robertson, T. S. (1967). The process of innovation and the diffusion of innovation. *Journal of Marketing*, *31*(1), 14–19.

Robson, C. (1993). *Real world research: A resource for social scientists and practitioner-researchers*. Oxford, UK: Blackwell.

Rodan, S., & Galunic, D. C. (2004). More than network structure: How knowledge heterogeneity influences managerial performance and innovativeness. *Strategic Management Journal*, *25*(6), 541–562.

Roquebert, J. A., Phillips, R. L., & Westfall, P. A. (1996). Markets vs. management: What "drives" profitability? *Strategic Management Journal*, *17*(8), 653–664.

Rotem, Z., & Amit, R. (1997). Strategic defense and competence-based competition. In A. Heene & R. Sanchez (Eds.), *Competence-based strategic management*, The strategic management series (pp. 169–191). Chichester, UK: Wiley.

Rothaermel, F. T., & Boeker, W. (2008). Old technology meets new technology: Complementarities, similarities, and alliance formation. *Strategic Management Journal*, *29*(1), 47–77.

Rothaermel, F. T., & Deeds, D. L. (2004). Exploration and exploitation alliances in biotechnology: A system of new product development. *Strategic Management Journal*, *25*(3), 201–221.

Rothaermel, F. T., Hitt, M. A., & Jobe, L. A. (2006). Balancing vertical integration and strategic outsourcing: effects on product portfolio, product success, and firm performance. *Strategic Management Journal*, *27*(11), 1033–1056.

Rouse, M. J., & Daellenbach, U. S. (1999). Rethinking research methods for the resource-based perspective: Isolating sources of sustainable competitive advantage. *Strategic Management Journal*, *20*(5), 487–494.

Rouse, M. J., & Daellenbach, U. S. (2002). More thinking on research methods for the resource-based perspective. *Strategic Management Journal*, *23*(10), 963–967.

Royer, I., & Zarlowski, P. (2001). Research design. In R. A. Thiétart (Ed.), *Doing management research: A comprehensive guide* (pp. 111–131). London: SAGE.

Ruefli, T. W., & Wiggins, R. R. (2003). Industry, corporate, and segment effects and business performance: A non-parametric approach. *Strategic Management Journal*, *24*(9), 861–879.

Rugman, A. M., & Verbeke, A. (2002). Edith Penrose's contribution to the resource-based view of strategic management. *Strategic Management Journal*, *23*(8), 769–780.

Rugman, A. M., & Verbeke, A. (2004). A final word on Edith Penrose. *Journal of Management Studies*, *41*(1), 205–217.

Ruiz-Navarro, J. (1998). Turnaround and renewal in a Spanish shipyard. *Long Range Planning*, *31*(1), 51–59.

Rumelt, R. P. (1984). Towards a strategic theory of the firm. In R. B. Lamb (Ed.), *Competitive strategic management* (pp. 556–570). Englewood Cliffs, NJ: Prentice Hall.

Rumelt, R. P. (1987). Theory, strategy, and entrepreneurship. In D. J. Teece (Ed.), *The competitive challenge: Strategies for industrial innovation and renewal*, Ballinger

series on innovation and organizational change (pp. 137–158). Cambridge, MA: Ballinger Pub. Co.

Rumelt, R. P. (1991). How much does industry matter? *Strategic Management Journal*, *12*(3), 167–185.

Rumelt, R. P., & Wensley, R. (1981). In search of the market share effect. *Academy of Management Proceedings*, 2–6.

Sabel, C. F. (1993). Studied trust: Building new forms of cooperation in a volatile economy. *Human Relations*, *46*(9), 1133–1170.

Sanchez, R. (1996). Strategic product creation: Managing new interactions of technology, markets, and organizations. *European Management Journal*, *14*(2), 121–138.

Sanchez, R. (1997). Strategic management at the point of inflection: Systems, complexity and competence theory. *Long Range Planning*, *30*(6), 939–946.

Sanchez, R. (2004). Understanding competence-based management: Identifying and managing five modes of competence. *Journal of Business Research*, *57*(5), 518–532.

Sanchez, R. (2008). A scientific critique of the resource-based view (RBV) in strategy theory, with competence-based remedies for the RBV's conceptual deficiencies and logic problems. In A. Heene & R. Sanchez (Eds.), *A focused issue on fundamental issues in competence theory development*, Research in competence-based management (1st ed., Vol. 4, pp. 3–78). Bingley, UK: Emerald/JAI.

Sanchez, R., & Heene, A. (1996). A systems view of the firm in competence-based competition. In R. Sanchez, A. Heene, & H. Thomas (Eds.), *Dynamics of competence-based competition* (1st ed.). Oxford: Elsevier.

Sanchez, R., & Heene, A. (1997a). Reinventing strategic management: New theory and practice for competence-based competition. *European Management Journal*, *15*(3), 303–317.

Sanchez, R., & Heene, A. (1997b). Competence-based strategic management: Concepts and issues for theory, research, and practice. In A. Heene & R. Sanchez (Eds.), *Competence-based strategic management*, The strategic management series (pp. 3–42). Chichester, UK: Wiley.

Sanchez, R., & Heene, A. (2004). *The new strategic management: Organization, competition, and competence*. New York: Wiley.

Sanchez, R., & Heene, A. (Eds.). (2005). *Competence perspectives on resources, stakeholders and renewal* (Vol. 9). Bingley, UK: Emerald Group Publishing.

Sanchez, R., & Heene, A. (Eds.). (2008). *A focused issue on fundamental issues in competence theory development*. Research in competence-based management (1st ed., Vol. 4). Bingley, UK: Emerald/JAI.

Sanchez, R., Heene, A., & Thomas, H. (1996a). Introduction: Towards the theory and practice of competence-based competition. In R. Sanchez, A. Heene, & H. Thomas (Eds.), *Dynamics of competence-based competition* (1st ed.). Oxford: Elsevier.

Sanchez, R., Heene, A., & Thomas, H. (Eds.). (1996b). *Dynamics of competence-based competition* (1st ed.). Oxford: Elsevier.

Sanchez, R., & Thomas, H. (1996). Strategic goals. In R. Sanchez, A. Heene, & H. Thomas (Eds.), *Dynamics of competence-based competition* (1st ed.). Oxford: Elsevier.

Sappington, D. E. M., & Wernerfelt, B. (1985). To brand or not to brand? A theoretical and empirical question. *Journal of Business*, *58*(3), 279–293.

Saunders, M., Lewis, P., & Thornhill, A. (2003). *Research methods for business students* (3rd ed.). Harlow, UK: Prentice Hall.

Schein, E. H. (1983). The role o f the founder in creating organizational culture. *Organizational Dynamics*, *12*(1), 13–28.

Schein, E. H. (1985). *Organizational culture and leadership*. A Joint publication in the Jossey-Bass management series and the Jossey-Bass social and behavioral science series (1st ed.). San Francisco: Jossey-Bass Publishers.

Schmalensee, R. (1985). Do markets differ much? *The American Economic Review*, *75*(3), 341–351.

Schofield, J. W. (2002). Increasing the generalizability of qualitative research. In A. M. Huberman & M. B. Miles (Eds.), *The qualitative researcher's companion* (pp. 171–203). Thousand Oaks, CA: Sage Publications.

Schreiner, M., Kale, P., & Corsten, D. (2009). What really is alliance management capability and how does it impact alliance outcomes and success? *Strategic Management Journal*, *30*(13), 1395–1419.

Schroeder, D. M. (1990). A dynamic perspective on the impact of process innovation upon competitive strategies. *Strategic Management Journal*, *11*(1), 25–41.

Schroeder, R. G., Bates, K. A., & Junttila, M. A. (2002). A resource-based view of manufacturing strategy and the relationship to manufacturing performance. *Strategic Management Journal*, *23*(2), 105–117.

Schuler, R. S., & MacMillan, I. C. (1984). Gaining competitive advantage through human resource management practices. *Human Resource Management*, *23*(3), 241–255.

Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle*. (R. Opie, Trans.)Harvard economic studies. Cambridge, MA: Harvard University Press.

Schumpeter, J. A. (1950). *Capitalism, socialism, and democracy* (3d ed.). New York: Harper.

Selznick, P. (1957). *Leadership in administration: A sociological interpretation*. New York: Harper and Row.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization* (1st ed.). New York: Doubleday/Currency.

Shah, R. H., & Swaminathan, V. (2008). Factors influencing partner selection in strategic alliances: The moderating role of alliance context. *Strategic Management Journal*, *29*(5), 471–494.

Shamsie, J. (2003). The context of dominance: An industry-driven framework for exploiting reputation. *Strategic Management Journal*, *24*(3), 199–215.

Shamsie, J. (2005). Probing into the nature of resources: Sustainable advantages and appropriable rents in the U.S. motion picture industry. In R. Sanchez & A. Heene (Eds.), *Competence perspectives on resources, stakeholders and renewal*, Advances in Applied Business Strategy (Vol. 9, pp. 3–16). Bingley, UK: Emerald Group Publishing.

Shan, W., Walker, G., & Kogut, B. (1994). Interfirm cooperation and startup innovation in the biotechnology industry. *Strategic Management Journal*, *15*(5), 387–394.

Shankar, V., Azar, P., & Fuller, M. (2008). BRAN*EQT: A multicategory brand equity model and its application at Allstate. *Marketing Science*, *27*(4), 567–584,749–750,753.

Shapiro, C. (1983). Premiums for high quality products as returns to reputations. *The Quarterly Journal of Economics*, *98*(4), 659–680.

Shaw, J. D., Duffy, M. K., Johnson, J. L., & Lockhart, D. E. (2005). Turnover, social capital losses, and performance. *Academy of Management Journal*, *48*(4), 594–606.

Shaw, J. D., Gupta, N., & Delery, J. E. (2005). Alternative conceptualizations of the relationship between voluntary turnover and organizational performance. *Academy of Management Journal*, *48*(1), 50–68.

Shimp, T. A., & Sharma, S. (1987). Consumer ethnocentrism: Construction and validation of the cetscale. *Journal of Marketing Research*, *24*(3), 280–289.

Sidhu, J. S., Volberda, H. W., & Commandeur, H. R. (2004). Exploring exploration orientation and its determinants: Some empirical evidence. *Journal of Management Studies*, *41*(6), 913–932.

Siebert, W., & Zubanov, N. (2009). Searching for the optimal level of employee turnover: A study of a large U.K. retail organization. *Academy of Management Review*, *52*(2), 294–313.

Silverman, D. (2005). *Doing qualitative research: A practical handbook* (2nd ed.). London: Sage Publications.

Silverman, D., & Marvasti, A. B. (2008). *Doing qualitative research : A comprehensive guide*. Los Angeles, CA: SAGE.

Simon, H. A. (1976). *Administrative behavior: A study of decision-making processes in administrative organizations* (3d ed.). New York: Free Press.

Snow, C. C., & Hrebiniak, L. G. (1980). Strategy, distinctive competence, and organizational performance. *Administrative Science Quarterly*, *25*(2), 317–336.

Song, X. M., & Parry, M. E. (1996). What separates Japanese new product winners from losers. *Journal of Product Innovation Management*, *13*(5), 422–439.

Song, X. M., & Parry, M. E. (1997). The determinants of Japanese new product successes. *Journal of Marketing Research*, *34*(1), 64–76.

Song, X. M., Souder, W. E., & Dyer, B. (1997). A casual model of the impact of skills, synergy, and design sensitivity on new product performance. *The Journal of Product Innovation Management*, *14*(2), 88–101.

Sosna, M., Trevinyo-Rodríguez, R. N., & Velamuri, S. R. (2010). Business model innovation through trial-and-error learning: The Naturhouse case. *Long Range Planning*, *43*(2/3), 383–402.

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

Spekman, R. E., Forbes, T. M., Isabella, L. A., & MacAvoy, T. C. (1998). Alliance management: A view from the past and a look to the future. *Journal of Management Studies*, *35*(6), 747–772.

Spender, J.-C. (1996a). Making knowledge the basis of a dynamic theory of the firm. *Strategic Management Journal*, *17*, 45–62.

Spender, J.-C. (1996b). Competitive advantage from tacit knowledge? Unpacking the concept and its strategic implications. In B. Moingeon & A. C. Edmondson (Eds.), *Organizational learning and competitive advantage* (pp. 56–73). London: Sage Publications.

Spender, J.-C. (1996c). Organizational knowledge, learning and memory: Three concepts in search of a theory. *Journal of Organizational Change Management*, *9*(1), 63–78.

Spender, J.-C. (2006). The RBV, methodological individualism, and managerial cognition: Practicing entrepreneurship (pp. 1–38). Presented at the Annual meeting of the Academy of Management, Atlanta, GA.

Spender, J.-C., & Grant, R. M. (1996). Knowledge and the firm: Overview. *Strategic Management Journal*, *17*, 5–9.

Srivastava, R. K., Fahey, L., & Christensen, H. K. (2001). The resource-based view and marketing: The role of market-based assets in gaining competitive advantage. *Journal of Management*, *27*(6), 777–802.

Stake, R. E. (2006). *Multiple case study analysis*. New York: The Guilford Press.

Standfield, K. (2002). *Intangible management: Tools for solving the accounting and management crisis*. San Diego, CA: Academic Press.

Stebbins, R. A. (2001). *Exploratory research in the social sciences*. Qualitative research methods. Thousand Oaks, CA: Sage Publications.

Steensen, E., & Sanchez, R. (2008). Forces in strategy formation. *Fundamental issues in competence theory development: A focused issue*, Research in competence-based management (Vol. 4, pp. 131–172). Bingley, UK: Emerald Group Publishing.

Stewart, T. A. (1997). *Intellectual capital: The new wealth of organizations* (1st ed.). New York: Doubleday/Currency.

Stieglitz, N., & Heine, K. (2007). Innovations and the role of complementarities in a strategic theory of the firm. *Strategic Management Journal*, *28*(1), 1–15.

Stuart, T. E. (2000). Interorganizational alliances and the performance of firms: A study of growth and innovation rates in a high-technology industry. *Strategic Management Journal*, *21*(8), 791–811.

Swait, J., Erdem, T., Louviere, J., & Dubelaar, C. (1993). The equalization price: A measure of consumer-perceived brand equity. *International Journal of Research in Marketing*, *10*(1), 23–45.

Swiss Federal Institute of Intellectual Property (IPI). (2004). *Patents, trademarks & Co.* (pp. 1–42). Bern CH: Swiss Federal Institute of Intellectual Property (IPI).

Teece, D. J. (1981). The market for know-how and the efficient international transfer of technology. *Annals of the American Academy of Political and Social Science*, *458*, 81–96.

Teece, D. J. (1986a). Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research Policy*, *15*(6), 285–305.

Teece, D. J. (1986b). Firm boundaries, technological innovation, and strategic management. In L. G. Thomas (Ed.), *The economics of strategic planning: Essays in honor of Joel Dean* (pp. 187–199). Lexington, MA: Lexington Books.

Teece, D. J. (1998). Capturing value from knowledge assets: The new economy, markets for know-how, and intangible assets. *California Management Review*, *40*(3), 55–79.

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

Teece, D. J. (2009). *Dynamic capabilities and strategic management: Organizing for innovation and growth*. Oxford; New York: Oxford University Press.

Teece, D. J., & Pisano, G. (1994). The dynamic capabilities of firms: An introduction. *Industrial and Corporate Change*, *3*(3), 537–556.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(7), 509–533.

Thomas, J. B., & Trevino, L. K. (1993). Information processing in strategic alliance building: A multiple-case approach. *Journal of Management Studies*, *30*(5), 779–814.

Thorelli, H. B. (1986). Networks: Between Markets and Hierarchies. *Strategic Management Journal*, *7*(1), 37–51.

Tomer, J. F. (1987). *Organizational capital: The path to higher productivity and well-being*. New York: Praeger.

Tsoukas, H. (1996). The firm as a distributed knowledge system: A constructionist approach. *Strategic Management Journal*, *17*, 11–25.

Tushman, M. L., & Nadler, D. (1986). Organizing for innovation. *California Management Review*, *28*(3), 74–92.

Tushman, M. L., & O'Reilly, C. A. I. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, *38*(4), 8–30.

Utterback, J. M., & Abernathy, W. J. (1975). A dynamic model of process and product innovation. *Omega*, *3*(6), 639–656.

Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, *42*(1), 35–67.

Valentin, E. K. (2001). SWOT analysis from a resource-based view. *Journal of Marketing Theory and Practice*, *9*(2), 54–69.

Vause, B. (2005). *Guide to analysing companies* (4th ed.). London: The Economist in association with Profile.

Verlegh, P. W. J., & Steenkamp, J.-B. E. M. (1999). A review and meta-analysis of country-of-origin research. *Journal of Economic Psychology*, *20*(5), 521–546.

Vermeulen, F., & Barkema, H. (2001). Learning through acquistions. *Academy of Management Journal*, *44*(3), 457–476.

Verona, G. (1999). A resource-based view of product development. *Academy of Management Review*, *24*(1), 132–142.

Volery, T., & Mensik, S. (1998). The role of trust in creating effective alliances: A managerial perspective. *Journal of Business Ethics*, *17*(9/10), 987–994.

Weber, R. P. (1990). *Basic content analysis*. Sage university papers series (2nd ed.). Newbury Park, CA: Sage Publications.

Weerawardena, J., & O'Cass, A. (2004). Exploring the characteristics of the market-driven firms and antecedents to sustained competitive advantage. *Industrial Marketing Management*, *33*(5), 419–428.

Weigelt, K., & Camerer, C. (1988). Reputation and corporate strategy: A review of recent theory and applications. *Strategic Management Journal*, *9*(5), 443–454.

Welbourne, T. M., & Wright, P. M. (1997). *Which resources matter in initial public offering firms? A longitudinal comparison of five resources' contributions to firm performance* (Working Paper No. 97-02). CAHRS Working Paper Series (p. 37). Ithaca, NY: Center for Advanced Human Resource Studies, Cornell University.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, *5*(2), 171–180.

Wernerfelt, B. (1989). From critical resources to corporate strategy. *Journal of General Management*, *14*(3), 4–12.

Wernerfelt, B. (1995). The resource-based view of the firm: Ten years after. *Strategic Management Journal*, *16*(3), 171–174.

Wernerfelt, B., & Montgomery, C. A. (1988). Tobin's q and the importance of focus in firm performance. *The American Economic Review*, *78*(1), 246–250.

Whetten, D. A. (1981). Interorganizational relations: A review of the field. *Journal of Higher Education*, *52*(1), 1–28.

Whipp, R., Rosenfeld, R., & Pettigrew, A. (1989). Culture and competitiveness: Evidence from two mature UK industries. *Journal of Management Studies*, *26*(6), 561–585.

Williamson, O. E. (1975). *Markets and hierarchies, analysis and antitrust implications: A study in the economics of internal organization*. New York: Free Press.

Williamson, O. E. (1979). Transaction-cost economics: The governance of contractual relations. *Journal of Law and Economics*, *22*(2), 233–261.

Williamson, O. E. (1981). The economics of organization: The transaction cost approach. *The American Journal of Sociology*, *87*(3), 548–577.

Williamson, O. E. (1985). *The economic institutions of capitalism: Firms, markets, relational contracting*. New York: Free Press.

Williamson, O. E. (1991). Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*, *36*(2), 269–296.

Wilson, D. T. (1995). An integrated model of buyer-seller relationships. *Journal of the Academy of Marketing Science*, *23*(4), 335–345.

Winter, S. G. (1987). Knowledge and competence as strategic assets. In D. J. Teece (Ed.), *The competitive challenge: Strategies for industrial innovation and renewal*, Ballinger series on innovation and organizational change (pp. 159–184). Cambridge, MA: Ballinger Pub. Co.

Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, *24*(10), 991–995.

Wirtz, J., Kum, D., & Lee, K. S. (2000). Should a firm with a reputation for outstanding service quality offer a service guarantee? *The Journal of Services Marketing*, *14*(6), 502–512.

Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. *Journal of Management*, *18*(2), 295–320.

Wright, P. M., McMahan, G. C., & McWilliams, A. (1994). Human resources and sustained competitive advantage: A resource-based perspective. *International Journal of Human Resource Management*, *5*(2), 301–326.

Yao, D. A. (1988). Beyond the reach of the invisible hand: Impediments to economic activity, market failures, and profitability. *Strategic Management Journal (1986-1998)*, *9*(5), 59–70.

Yin, R. K. (2003). *Case study research: Design and methods*. Applied social research methods series (3rd ed.). Thousand Oaks, CA: Sage Publications.

Young-Ybarra, C., & Wiersema, M. (1999). Strategic flexibility in information technology alliances: The influence of transaction cost economics and social exchange theory. *Organization Science*, *10*(4), 439–459.

Zaheer, A., & Venkatraman, N. (1995). Relational governance as an interorganizational strategy: An empirical test of the role of trust in economic exchange. *Strategic Management Journal*, *16*(5), 373–392.

Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management Studies*, *43*(4), 917–955.

Zajac, E. J., & Olsen, C. P. (1993). From transaction cost to transactional value analysis: Implications for the study of interorganizational strategies. *Journal of Management Studies*, *30*(1), 131–145.

Zeithaml, V. (2000). Service quality, profitability, and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science*, *28*(1), 67–85.

Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, *13*(3), 339–351.

Zott, C. (2003). Dynamic capabilities and the emergence of intraindustry differential firm performance: Insights from a simulation study. *Strategic Management Journal*, *24*(2), 97–125.

APPENDICES

APPENDIX I: DETAILS ON STUDY CASES (PARTICIPATING FIRMS)

Case	Industry	Firm location	No of Employees	Turnover [Mio CHF]	Age	Multi-national (Y/N)	Ownership	Distribution	Geographical focus	Market type
C1	Manufacture of general purpose machinery	Switzerland	>250	50-499	50-199	Yes	Pub	Direct/ indirect	Switzerland, Europe, REW	Business
C2	Manufacture/wholesale of beverages	Switzerland	>250	50-499	50-199	No	Pub	Indirect	Region, rest of Switzerland	Business/ consumer
C3	Manufacture of electrical devices	Abroad	>250	>500	50-199	Yes	Pri	Direct/ indirect	Europe, REW	Business
C4	Manufacture of electro-mechanical systems	Switzerland	>250	>500	50-199	Yes	Pub	Direct	Switzerland, Europe, Americas, Asia	Business
C5	Manufacture of perfumes and toilet preparations	Switzerland	>250	50-499	50-199	Yes	Pub	Indirect	Switzerland, Europe, Asia, REW	Consumer
C6	Manufacture of wearing apparel, sports goods	Switzerland	>250	50-499	50-199	Yes	Pub	Indirect	Switzerland, Europe, America	Consumer
C7	Manufacture of communication and electrical equipment	Abroad	>250	50-499	10-49	Yes	Pri	Direct	Europe, REW	Business/ consumer
C8	Manufacture of machining supplies	Switzerland	>250	50-499	50-199	Yes	Pub	Direct/ indirect	Switzerland, REW	Business/ consumer
C9	Manufacture of medical devices and supplies	Switzerland	50-249	<50	0-9	Yes	Pri	Direct/ indirect	Switzerland, Japan, etc.	Business
C10	Manufacture of beverages	Switzerland	>250	50-499	50-199	Yes	Pub	Indirect	Region, Switzerland, Europe	Business/ consumer
C11	Manufacture of electrical devices	Switzerland	>250	50-499	50-199	Yes	Pri	Indirect	Switzerland, Europe, REW (selected countries)	Business/ consumer

Breakdown of cases of the study by location	
Location	Number of cases
Switzerland	9
Abroad (neighbouring countries)	2
Total	11

Breakdown of cases of the study by numbers of employees	
Number of employees	Number of cases
>250	10
50-249	1
Total	11

Breakdown of cases of the study by turnover	
Turnover (in CHF million)	Number of case
50-499	8
>500	2
<50	1
Total	11

Breakdown of cases of the study by age	
Age (years)	Number of cases
50-199	9
10-49	1
0-9	1
Total	11

Breakdown of cases of the study by operational scope	
Operational scope	Number of cases
Multinational	10
National	1
Total	11

Breakdown of cases of the study by ownership	
Ownership	Number of cases
Public	7
Private	4
Total	11

Breakdown of cases of the study by distribution	
Distribution	Number of cases
Indirect	5
Direct/indirect	4
Direct	2
Total	11

Breakdown of cases of the study by market type	
Market type	Number of cases
Business/consumer	5
Business	4
Consumer	2
Total	11

Appendix II: Details on study respondents

Respondent	Functional area	Case	Role	Gender
R1	General management	C1	CEO	Male
R2	Marketing	C1	Marketing Manager	Male
R3	HRM	C1	HR Manager	Female
R4	General management	C2	President	Male
R5	Marketing	C2	Marketing Manager	Male
R6	Marketing	C2	Distribution Manager	Male
R7	General management	C3	Managing Director	Male
R8	Marketing	C3	Sales Manager	Male
R9	HRM	C3	HR Manager	Male
R10	General management	C4	CEO	Male
R11	General management	C4	BU Manager	Male
R12	General management	C5	CEO	Male
R13	Marketing	C5	Marketing Manager	Female
R14	General management	C6	CEO	Male
R15	Marketing	C6	Marketing Manager	Male
R16	General management	C7	President	Male
R17	General management	C7	CEO	Male
R18	General management	C8	CEO	Male
R19	Marketing	C8	Marketing Manager	Male
R20	Marketing	C9	Marketing Manager	Male
R21	General management	C9	CEO	Male
R22	R&D	C9	R&D Manager	Male
R23	General management	C10	CEO	Male
R24	Marketing	C10	Distribution Manager	Female
R25	Marketing	C11	Marketing Manager	Male
R26	Marketing	C11	PR Manager, Assistant to CEO	Female

Breakdown of respondents of the study by functional area	
Functional area	Number of respondents
General management	12
Marketing, sales, distribution	11
HRM	2
R&D	1
Total	26

Breakdown of respondents of the study by role	
Role	Number of respondents
CEO, Managing Director	9
Marketing Manager	7
Distribution Manager	2
HR Manager	2
President	2
Managing Director	1
BU Manager	1
PR Manager	1
R&D Manager	1
Sales Manager	1
Total	26

Breakdown of respondents of the study by case	
Case	Number of respondents
C1	3
C2	3
C3	3
C9	3
C4	2
C5	2
C6	2
C7	2
C8	2
C10	2
C11	2
Total	26

APPENDIX III: CASE STUDY PROTOCOL

Element	– Description
Purpose of study	– See Chapter 1
Conceptual framework	– See Chapter 3
Research question	– See Chapter 5, Section 5.2.3
Interview questions	– Data sources are interviews. – Use template of interview guide (see Appendix IV). Adapt as appropriate to match questions with respondent's area of expertise and role, to address open questions, and to explore emerging concepts.
Field procedures	a) Gaining Access – Identify a representative for selected company (preferably CEO, board member) – Determine contact strategy (email, telephone). – Personalize standard text for enquiry (personal address, reason for contact, purpose of study, expected contribution, proposal for participation). – Contact representative according to the contact strategy. If email is used, attach 1-page description of study (see Appendix VII). If telephone is used and representative is interested, send thereafter a 1-page description of study per email. – Follow up with representatives after 5-10 working days. Ask whether they have decided to participate. – Upon agreement, ask representative for potential interview candidates. b) Scheduling, preparing, and conducting interviews – Coordinate interviews with representative. Contact respondents directly only with prior consent. – Schedule first interview with representative or named candidate (email, telephone). – Confirm interview appointment by email. – Send interview guide with questions upon request per email. – Conduct interview with respondent on site. Ask for permission to record interview. Take handwritten field notes. – Review candidate list based on outcome of the first interview. – Propose and schedule further interviews as required (theoretical sampling), repeat previous steps for each candidate respondent. – Voice record interviews, take field notes as appropriate.

Reporting guidelines	– Write contact summaries. – Transcribe and code interviews. – Construct logical cases with QDA software. – Perform cross-case analysis. – Report findings of cross-case analysis in diagrams and analytic text. – Neutralize content and describe cases in such a way real firms or persons cannot be identified even by inference (confidentiality agreements). – Use the unit of analysis as the main structure for reporting the study findings (i.e., main findings that explain the principal research question). – Note: The case studies will not be reported individually.

Note: Adapted from Yin (2003)

Appendix IV: Interview guide

Interview Fragebogen

Organisation:
Interview mit:
Ort:
Datum:
Start:
Ende:
Dauer:

1. Einleitung

– Vorstellung des Interviewers und des Dissertationsprojekts	
– Fragen zum Hintergrund des Interviewten: Position und Funktion	

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Note: This questionnaire includes material taken from Aaker (1989), Carmeli (2001), Fahy (2002), Galbreath (2004), Hall (1992, 1993), Powell and Dent-Micallef (1997), Spanos and Lioukas (2001), and Welbourne and Wright (1997).

2. Erfolg

Zielsetzung der Fragen: Eruierung der Hintergründe des Unternehmenserfolgs

Q1. Was sind die wichtigsten Gründe für den Erfolg Ihrer Firma?	
Q2. Welche Indikatoren sind Ihrer Meinung nach relevant, um den längerfristigen Erfolg von Firmen in ihrem Sektor abzuschätzen zu können?	
Q3. Was hindert Sie daran, noch erfolgreicher zu werden?	
Q4. Was müsste die Konkurrenz tun, um Sie einzuholen?	
Q5. Wie war Ihr Umsatzwachstum über die letzten drei Jahre im Vergleich zu Ihren stärksten Konkurrenten: a) kleiner, b) gleich oder c) grösser?	
Q6. Wie war Ihr Marktanteilswachstum über die letzten drei Jahre im Vergleich zu Ihren stärksten Konkurrenten: a) kleiner, b) ungefähr gleich oder c) grösser?	
Q7. Wie war Ihre Eigenkapitalrendite (ROE) über die letzten drei Jahre im Vergleich zu Ihren stärksten Konkurrenten: a) kleiner, b) ungefähr gleich oder c) grösser?	

3. Markt und Wettbewerbsumfeld

Zielsetzung der Fragen: Definition des Markts und des Wettbewerbsumfelds

Markt	
Q8. In welchen Märkten sind Sie tätig und was sind die wichtigsten Besonderheiten dieser Märkte?	
Q9. Welche Rolle nehmen Sie in diesen Märkten ein und wie sind Sie organisiert?	
Q10. Wie war die Marktentwicklung über die letzten drei Jahre?	
Rivalität	
Q11. Auf wie viele Unternehmen teilt sich der Gesamtmarkt auf?	
Q12. Gibt es hinsichtlich Grösse und Macht der Unternehmen grosse Unterschiede?	
Q13. Auf welcher Basis wird der Wettbewerb ausgetragen?	
Q14. Mit welcher Intensität und welchen Mitteln versuchen die Wettbewerber ihre Position zu verbessern?	

Q15. Inwiefern sind die Produkte und Dienstleistungen der Anbieter klar differenziert?	
Eintritt und Substitution	
Q16. Wie einfach ist es für neue Firmen sich zu etablieren?	
Q17. Inwiefern besteht die Gefahr, dass Produkte und Dienstleistungen des Sektors durch andere Güter ersetzt werden?	
Macht von Lieferanten und Kunden	
Q18. Wie stark ist Ihre Verhandlungsmacht gegenüber von Lieferanten (z.B. Aushandlung von tieferen Preisen, Exklusivvereinbarungen, etc.)?	
Q19. Wie stark ist die Verhandlungsmacht Ihrer Kunden gegenüber Ihrer Firma (z.B. Aushandlung von tieferen Preisen)?	

4. Kundenmotive und Wettbewerbsvorteile

Zielsetzung der Fragen: Bestimmung der Kundenmotive, Produkt- und Serviceeigenschaften und relativen Wettbewerbsvorteile

Q20. Was sind die wesentlichen Kaufkriterien der Kunden?	
Q21. Aus welchen Gründen kaufen die Kunden bei Ihnen?	
Q22. Aus welchen Gründen kaufen potentielle Kunden bei Ihren Wettbewerbern?	
Q23. Gibt es weitere Vorteile, die Sie gegenüber Wettbewerbern haben? (z.B. Ressourcen, Fähigkeiten, Kompetenzen, Produkt- und Servicemerkmale)	
Q24. Gibt es (weitere) Vorteile, die Wettbewerbern gegenüber Ihnen haben?	
Q25. Inwiefern ist es für Wettbewerber möglich, Ihre Vorteile zu eliminieren?	
Q26. Inwiefern ist es für ihre Firma möglich, Vorteile der Wettbewerber zu eliminieren?	

Q27. Welche Kundenbedürfnisse sind durch bestehende Produkte und Dienstleistungen nicht oder ungenügend abgedeckt?	
Q28. Welche Faktoren könnten in der Zukunft die Spielregeln verändern?	

5. Dauerhaftigkeit von ressourcen- oder fähigkeitsbasierten Vorteilen

Zielsetzung der Fragen: Untersuchung der relativen Bedeutung von Ressourcen und Fähigkeiten für den Unternehmenserfolg (Spalte A), Identifikation von Ressource- und Fähigkeitsunterschieden zwischen Firmen (Spalte B), und Untersuchung dieser Unterschiede hinsichtlich Dauerhaftigkeit und Imitierbarkeit (Spalten C, D und E).

Legende:

* Markierung (x) falls Beurteilung in Spalte B nicht möglich

** Markierung (x) falls Fokus für Detailanalyse Spalte C, D und E

	A					B					C	D	E
	Relative Bedeutung für den Unternehmenserfolg (gering ↔ hoch)					Ausprägung relativ zum stärksten Wettbewerber (weniger ↔ mehr)					Schwächung: Wie könnte ein bestehender oder neuer Wettbewerber eine ähnliche oder bessere Position erreichen	Dauer: Wie lange würden Wettbewerber brauchen, um Lücke zu schliessen	Stärkung: Weshalb würde es für Wettbewerber schwierig sein, die Lücke zu schliessen
	0	1	2	3	4	-	=	+	*	**			
Materielle Güter													
Q29. Flüssige Mittel aus laufenden Geschäften (Kasse/Bank)													
Q30. Aufgenommenes Kapital (z.B. Bankkredite, Ausgabe von Aktien oder Obligationen)													
Q31. Finanzielle Investitionen (z.B. Zinsanlagen, Aktien, Firmenanteile)													
Q32. Immobilien (z.B. Betriebsstätten, Büroliegenschaften, Lager, Ausstellungen, Läden)													

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	A					B					C	D	E
	Relative Bedeutung für den Unternehmenserfolg gering ⟷ hoch					Ausprägung relativ zum stärksten Wettbewerber weniger ⟷ mehr					Schwächung Wie könnte ein bestehender oder neuer Wettbewerber eine ähnliche oder bessere Position erreichen	Dauer Wie lange würden Wettbewerber brauchen, um Lücke zu schliessen	Stärkung Weshalb würde es für Wettbewerber schwierig sein, die Lücke zu schliessen
	0	1	2	3	4	-	=	+	*	**			
Q33. Mobilien (z.B. Maschinen, Werkzeuge, Fahrzeuge)													
Q34. Land													
Immaterielle Güter													
Q35. Urheberrechte													
Q36. Patente													
Q37. Rechtlich geschützte Designs													
Q38. Rechtlich geschützte Handelsmarken													

	A					B					C	D	E
	Relative Bedeutung für den Unternehmenserfolg gering ⟷ hoch					Ausprägung relativ zum stärksten Wettbewerber weniger ⟷ mehr					Schwächung Wie könnte ein bestehender oder neuer Wettbewerber eine ähnliche oder bessere Position erreichen	Dauer Wie lange würden Wettbewerber brauchen, um Lücke zu schliessen	Stärkung Weshalb würde es für Wettbewerber schwierig sein, die Lücke zu schliessen
	0	1	2	3	4	-	=	+	*	**			
Q39. Proprietäre oder geheime Technologie (z.B. Softwareeigenentwicklungen, spezialisierte Produktionstechnologie, Datenbanken)													
Q40. Verträge mit Marktpartnern (z.B. Joint-Venture Vereinbarung, Franchisevereinbarung, Distributionsvereinbarung)													
Q41. Firmenkultur (Gemeinsame Werte, Überzeugungen, Einstellungen und Verhalten im Unternehmen)													
Q42. Unternehmenspolitik zur Anwerbung, Entwicklung und Erhalt von talentierten Mitarbeitern (z.B. Rekrutierung, Kompensation, Belohnung, Training)													
Q43. Organisationsstruktur der Firma (d.h. die Betriebs- und Führungsstruktur)													

	A					B					C	D	E
	Relative Bedeutung für den Unternehmenserfolg (gering ↔ hoch)					Ausprägung relativ zum stärksten Wettbewerber (weniger ↔ mehr)					Schwächung Wie könnte ein bestehender oder neuer Wettbewerber eine ähnliche oder bessere Position erreichen	Dauer Wie lange würden Wettbewerber brauchen, um Lücke zu schliessen	Stärkung Weshalb würde es für Wettbewerber schwierig sein, die Lücke zu schliessen
	0	1	2	3	4	-	=	+	*	**			
Q44. Firmenreputation													
Q45. Markenreputation													
Q46. Produktreputation													
Q47. Kundenservicereputation													
Fähigkeiten													
Q48. Fähigkeiten, Kreativität und Wissen der Mitarbeiter													
Q49. Fähigkeiten, Expertise und Wissen der Führungskräfte													

	A					B					C	D	E
	Relative Bedeutung für den Unternehmenserfolg gering ⟷ hoch					Ausprägung relativ zum stärksten Wettbewerber weniger ⟷ mehr					Schwächung Wie könnte ein bestehender oder neuer Wettbewerber eine ähnliche oder bessere Position erreichen	Dauer Wie lange würden Wettbewerber brauchen, um Lücke zu schliessen	Stärkung Weshalb würde es für Wettbewerber schwierig sein, die Lücke zu schliessen
	0	1	2	3	4	-	=	+	*	**			
Q50. Beziehungen, welche Mitarbeiter und Führungskräfte mit externen Marktteilnehmern zum Vorteil der Firma unterhalten (z.B. zu Kunden, Lieferanten, etc.)													
Q51. Operationelle Geschäftsprozesse													

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APPENDIX V: INITIAL CODING LIST

Category	Englisch	German
CAS	Case name	Case Name
CAS/RSP	Respondent	Teilnehmer
RES	Resources	Ressourcen
RES/HET	Heterogeneity	Heterogenität
RES/IMO	Immobility	Immobilität
RES/VAL	Value	Wert
RES/RAR	Rareness	Rarität
RES/IMI	Inimitability	Nicht-Imitierbarkeit
RES/INI/HIS	History/path dependency	Geschichte/Pfadabhängigkeit
RES/INI/SOC	Social complexity	Soziale Komplexität
RES/INI/CAU	Causal ambiguity	Kausale Ambiguität
RES/INI/PRO	Property rights	Eigentumsrechte
RES/INI/TIM	Time compression diseconomies	Zeitdruck-Unwirtschaftlichkeit
RES/INI/ERO	Asset erosion	Vermögenswert-Erosion
RES/INI/EFF	Asset mass efficiencies	Vermögenswert-Akkumulierungsdynamik
RES/INI/INT	Interconnectedness	Vernetzung
RES/TYP	Typ	Typ
RES/TYP/CAP	Capability	Fähigkeiten
RES/TYP/CAP/MAN	Management skills, expertise, knowledge	Fähigkeiten, Expertise und Wissen der Führungskräfte
RES/TYP/CAP/EMP	Employee skills, expertise, knowledge	Fähigkeiten, Kreativität und Wissen der Mitarbeiter
RES/TYP/CAP/REL	Relationship with market partners	Beziehungen mit Marktteilnehmern
RES/TYP/CAP/PRO	Operational processes/routines	Geschäftsprozesse, -routinen
RES/TYP/INT	Intelectual property	Geistiges Eigentum
RES/TYP/INT/COP	Copy rights	Urheberrechte
RES/TYP/INT/DES	Registered designs	Geschützte Designs, Muster
RES/TYP/INT/TRA	Trademarks	Geschützte Marken
RES/TYP/INT/PAT	Patents	Patente
RES/TYP/INT/TEC	Proprietary/secret technology	Proprietäre o. geheime Technologie
RES/TYP/ORG	Organisational assets	Organisatorische Vermögenswerte
RES/TYP/ORG/CUL	Firm culture	Firmenkultur
RES/TYP/ORG/HRP	HR policy	HR Unternehmenspolitik
RES/TYP/ORG/STR	Firm structure	Organisationsstruktur
RES/TYP/ORG/AGR	Agreements with market partners	Verträge mit Marktpartnern
RES/TYP/REP	Reputational assets	Reputationsbasierte Vermögenswerte
RES/TYP/REP/FIR	Firm reputation	Firmenreputation
RES/TYP/REP/BRA	Brand reputation	Markenreputation
RES/TYP/REP/PRO	Product reputation	Produktreputation
RES/TYP/REP/CUS	Customer service reputation	Kundenservicereputation
RES/TYP/FIN	Financial assets	Finanzielle Güter
RES/TYP/FIN/CAS	Cash	Flüssige Mittel
RES/TYP/FIN/RAC	Raised capital	Aufgenommenes Kapital
RES/TYP/FIN/INV	Financial investments	Finanzielle Investitionen
RES/TYP/PHY	Physical assets	Physische Güter
RES/TYP/PHY/MOB	Machines/tools/etc.	Mobilien
RES/TYP/PHY/IMO	Buildings	Immobilien
RES/TYP/PHY/LAN	Land	Land

FIR	Firm	Firma
FIR/AGE	Age	Alter
FIR/SIZE	Size	Grösse
FIR/PER	Performance	Erfolg
FIR/PER/DRI	Drivers	Treiber
FIR/PER/INH	Inhibitors	Inhibitoren
FIR/STR	Strategy	Strategie
FIR/STA	Stakeholders	Anspruchsgruppen
FIR/STA/MAN	Management	Management
FIR/STA/EMP	Employee	Mitarbeiter
FIR/STA/PAR	Partner	Partner
FIR/STA/CUS	Customer	Kunde
FIR/FUN	Function	Funktion
FIR/FUN/MAN	Management	Management
FIR/FUN/MAR	Marketing	Marketing
FIR/FUN/SAL	Sales	Verkauf
FIR/FUN/PUR	Purchasing	Einkauf
FIR/FUN/PRO	Production	Produktion
FIR/FUN/LOG	Logistics	Logistik
FIR/FUN/HRM	Human resource management	Human Resource Management
FIR/FUN/R&D	Research and development	Forschung und Entwicklung
FIR/FUN/IT	Information technology	IT
FIR/PRO	Processes	Prozesse
COM	Competitors	Wettbewerber
COM/STR	Strategy	Strategie
COM/RES	Resources	Ressourcen
CON	Context	Umfeld
CON/MAR	Market	Markt
CON/IND	Industry	Industrie
CON/IND/SUC	Success factors	Erfolgsfaktoren
CON/IND/PER	Performance indicators	Erfolgsindikatoren
CON/IND/FOR	Competitive forces	Wettbewerbskräfte
CON/IND/FOR/RIV	Rivalry	Rivalität
CON/IND/FOR/SUP	Suppliers' Power	Lieferantenmacht
CON/IND/FOR/CUS	Customers' Power	Kundenmacht
CON/IND/FOR/SUB	Substitution	Substitution
CON/IND/FOR/ENT	Entry	Eintritt

APPENDIX VI: SAMPLE OF A CONTACT SUMMARY SHEET

Contact Summary Sheet

Type:	Interview	Date Interview:	[redacted]
Organisation:	[redacted]	Date Summary:	04.08.2007
Person:	[redacted]	Scope:	whole organisation

1) Summary of key questions and answers

Key reasons for success	Experienced team, industry knowledge, financial funds, investors with long-term perspective
Future success factors	Product innovation, customer loyalty
Success limiting factors	Time to consolidate growth (last year +60%), capital, employee acquisition rate
Possbil. for competitors to catch up	Marketing, international expansion
Market and competition	Both price and supply have increased, customer usually buy from 2-3 suppliers, low probability of a monopoly/oligopoly
Competitive advantages	Customer proximity, flexibility, simpler products, customer access to R&D
Competitive disadvantages	Marketing and distribution (marketing budget)
Imitations/Substitution barriers	Limited number of distributors, availability of management teams, size of competitors (low flexibility)
Resources (succ. relev./superior)	Raised financial capital, organisational contracts, firm culture, HR policy, organisational structure, skills/creativity/know-how of employees
Resources (succ. relev./equal)	Physical equipment and other physical assets, legally-protected designs, skills/expertise/know-how of managers, relationships with external constituents, operational processes
Resources (succ. relev./inferior)	Cash, patents, proprietary or held-in secret technology, company reputation, brand name reputation, product/service reputation, customer service reputation.
Customer buying criteria	…

2) Salient points

- Company size is linked to competitive advantage (flexibility, speed, etc.)
- Growth has systemic limits, factor time is important
- Resource disadvantages can be compensated
- The service of a resource/resource bundles (e.g. financing of growth) may be substituted by other resources or resource bundles
- Organisation is for [redacted]
- Resource portfolio is aligned with lifecycle of the company

3) General remarks

- Interviewee was well prepared (interview outline was sent beforehand)
- Open atmosphere
- Respondent could assess relative difference to competitors with respect to culture and organisational structure since the respondent worked [redacted] before.

4) Proposed themes/questions for further exploration with this site

- Simple products (product innovation, product development, protection, etc.) (R&D)
- Customer proximity and flexibility (Marketing)
- Customer loyalty (Marketing)
- Identifying customer requirements (process, response time, etc.) (Marketing)
- Influence of investors investment horizon on success
- Influence of growth rate on success

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APPENDIX VII: BRIEF DESCRIPTION OF STUDY

Beschreibung der Studie

Ziel der Studie

Die Dissertation befasst sich mit der Frage, warum einzelne Firmen erfolgreicher sind als andere. Die Studie hat folgende Zielsetzungen:

- Untersuchung von Wettbewerbsvorteilen hinsichtlich Art, Ursprung, Zusammensetzung, Dauerhaftigkeit, Schützbarkeit und Auswirkung auf den Unternehmenserfolg
- Bestimmung der Rolle von wissensbasierten Fähigkeiten im Rahmen des strategischen Managements.

Zielgruppe

Die Studie bezieht sich auf Unternehmen, welche im Branchenvergleich einen überdurchschnittlichen Erfolg aufweisen und in mehreren Märkten eine führende Stellung einnehmen. Die Selektion basiert auf der Annahme, dass erfolgreiche Firmen dauerhafte und schwer imitierbare Wettbewerbsvorteile besitzen.

Nutzen für die beteiligte Firma

Es besteht die Möglichkeit, dass durch die Teilnahme neue oder erweiterte Erkenntnisse über die Gestaltung von Wettbewerbsvorteilen entstehen. Die Teilnahme könnte sich für Manager nützlich erweisen, welche Wettbewerbsvorteile verstehen, erhalten oder erweitern möchten. Die Studienresultate können der Firma abgegeben werden.

Methode, Dauer und Ort der Untersuchung

Die Datenerhebung erfolgt vorwiegend über eine Befragung von Manager und Planer, welche mit der Aufgabe des strategischen Managements betraut sind. Es ist vorgesehen, die Interviews über einen Zeitraum vom 2 - 8 Wochen (je nach Anzahl und Verfügbarkeit der Interviewpartner kann die Dauer variieren) am Firmenstandort durchzuführen. Der Startzeitpunkt kann gemeinsam festgelegt werden.

Vertraulichkeit

Die Daten werden ausschliesslich für die Beantwortung der Untersuchungsfrage verwendet, absolut vertraulich behandelt und keinen Dritten zugänglich gemacht. Die Publikation der Forschungsresultate erfolgt in jedem Falle anonymisiert, so dass keine Rückschlüsse auf die Unternehmung oder Personen möglich sind.

Durchführung

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Dällikon, 2.03.2007