Department of Marketing

Strategic Orientations, Market-based Capabilities and Business Performance

The Moderating Effect of Business Context

Matti Jaakkola

Aalto University

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Abstract

Prior research has demonstrated that strategic orientations (e.g., market orientation, learning orientation and innovation orientation) and market-based capabilities (e.g., innovation capability and customer-linking capability) positively affect business performance. However, how these lead to superior firm performance has been insufficiently addressed. Moreover, the level of robustness of the performance implications has yet to be clarified. To these ends, the main research problem for this dissertation is: "How do different strategic orientations and market-based capabilities contribute to companies' business performances in different business contexts?" To address this problem, direct, mediated, and complementary performance effects of strategic orientations and market-based capabilities are examined. Furthermore, different external and internal contexts that could strengthen or weaken performance implications are considered. These issues are analyzed empirically in four complementary essays included in this dissertation.

The first essay examines whether different strategic orientations and marketing capabilities affect firm performance in an 'engineering country' context and determine whether these performance implications are different between countries. The second essay focuses on the roles of three core business process capabilities in translating the potential value of market orientation into superior business performance. In the third essay, I investigate whether a combination of market orientation and innovation capability leads to synergistic performance outcomes for firms in different business contexts. The fourth essay, by adopting a configurational approach, examines the roles of customer-linking capabilities and innovation capabilities in contributing to financial performance under different organizational and environmental contexts. In each essay, data sets ranging from 249 to well over 1,000 respondents are analyzed.

This dissertation contributes to both theory and practice. It adds to the understanding of the interplay between strategic orientations and market-based capabilities, as well as offers insight in to the how these factors contribute to business performance. Secondly, it identifies that performance implications are strongly context-dependent. According to the results, strategic orientations do not suffice as themselves; rather their value lies in building and leveraging market-based capabilities that account for differentials in firm performance. The analyses also identify combinations of orientations and capabilities that lead to superior performance. Importantly, firms should acknowledge that differences in and between country context, market type, and environmental turbulence may significantly affect the performance outcomes of their strategic orientations and market-based capabilities. I conclude that contextuality and the role of resource-capability combinations should be increasingly considered; failure to do so might lead to misleading results and potentially harmful recommendations for companies.

Keywords strategic marketing, strategic orientation, market-based capability, business performance, contextuality, configurations

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Helsinki, May 2012

Matti Jaakkola

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PART I: OVERVIEW OF THE DISSERTATION

1. INTRODUCTION

One of the central problems in marketing and strategic management studies is why some companies outperform others. While attempts to resolve this issue have been made, several unanswered questions remain for those who aim to find the Holy Grail of firm success. Given the increasingly dynamic and competitive business environment and strengthened bargaining power of customers (e.g., Sirmon et al. 2011; Kucuk and Krishnamurthy 2007), companies must be more sensitive to changing market conditions and customer preferences. Extant literature, however, clearly shows that such sensitivity requires a strong organization-wide culture that encourages market-based knowledge creation (e.g., Narver and Slater 1990) and emphasizes openness and learning (Sinkula, Baker and Noordewier 1997). Moreover, this knowledge might not directly affect performance (e.g., Hunt and Morgan 1995; Grewal et al. 2011); however, it is vital in developing and refining organizational capabilities for value creation and value capture (e.g., Srivastava, Shervani and Fahey 1999; Ketchen, Hult and Slater 2007). Specifically, customers do not buy a firm's organizational culture, they buy products and services for their latent and explicit needs; therefore, the development of different capabilities is required (cf. Winter 2003). It is for this reason that seamless co-operation between marketing and innovation is required. These two concepts have been argued to be the only value-creating functions of a firm (Drucker 1954).

Another central issue of managerial and academic interest is how context-specific the determinants for improved business performance are. The central tenet in strategic management is that a match between environmental conditions and organizational capabilities and resources is critical to performance (Bourgeois 1985, 548). Extant marketing research has not addressed this sufficiently; as such, findings are too generic and conclusions may be meaningless for managerial audiences and misleading from theoretical points of view (Song *et al.* 2005). For example, considering the differences between highly turbulent and stable environments (e.g., Jaworski and Kohli 1993) or between business-to-business and business-to-consumer markets (e.g., Anderson, Fornell and Rust 1997), universal

robustness of performance results over different business contexts seem an unrealistic assumption.

To address the above theoretical and managerial challenges, this study aims to increase the understanding of how organization-level strategic orientations and market-based capabilities contribute to business performance of firms in different business contexts.

The present dissertation is divided into two parts. In this first part (Part I), an overview of the research is given. More specifically, motivation for the study is first constructed by identifying the gaps in existing strategic marketing literature. Then, a theoretical background for and central concepts of the dissertation are presented. Subsequently, explicit research problems and objectives are formed, as well as research methodology and outline for the dissertation are presented. Finally, the main results are reviewed, which are discussed in light of theoretical and managerial implications and future research. The theoretical framework built in the introductory part is empirically tested in four complementary essays in Part II.

1.1 Research Gaps Addressed in the Dissertation

This dissertation addresses a number of gaps in the strategic marketing literature, which builds on several fields of study including marketing, strategic management, and industrial organization economics (Varadarajan 2010; Fahy and Smithee 1999; cf. Webster 1992). Existing research in strategic marketing focuses on organizational, inter-organizational, and environmental phenomena that are concerned with, among others, organizational behaviors in the marketplace within the context of the creation, communication, and delivery of offerings that add value to customers and contribute to performance differentials between companies (Varadarajan 2010). Of key interest are inter-dependent marketing decisions that entail resource commitments that are large, difficult to reverse, and made with a long-term outlook at high organizational levels (*ibid.*). This explains why the resource-based view of a firm (RBV) is at the core of strategic marketing (Fahy and Smithee 1999). Importantly, strategic marketing has a dual focus. First, the supply side includes characteristics of i) industry (level of growth and competition), ii) firm (resources and organizational capabilities), and iii) offering type. Second, the demand side includes traits of target customers (Varadarajan 2010). Building on these dimensions, and RBV (e.g., Barney 1991) and contingency approaches (e.g.,

Zeithaml, Varadarajan and Zeithaml 1988) in particular, the following research gaps are addressed.

Market orientation is a central concept of this study as well as in the contemporary marketing literature. The origins of market orientation are in a management philosophy known as 'the marketing concept' (Drucker 1954; McKitterick 1957; Levitt 1960). In this study, the cultural approach to market orientation (Narver and Slater 1990) is adopted. Specifically, this approach suggests that market orientation comprises three behavioral components for value creation – customer and competitor orientations and inter-functional coordination – that are driven by the organizational culture (*ibid.*, p. 22). In recent years, academicians have placed considerable emphasis on empirical studies that examine the antecedents and consequences of market orientation, such as business performance (van Raaij and Stoelhorst 2008). Findings have revealed a positive relationship between market orientation and business performance; however, results are not entirely conclusive (Kirca, Jayachandran and Bearden 2005; Cano, Carrillat and Jaramillo 2004). Furthermore, even if market orientation did not lead to superior performance outcomes, Kumar *et al.* (2011) argued that firms could not afford to be non-market-oriented because it has become a 'hygiene factor' in competitive markets.

While marketing scholars are faced with somewhat consistent evidence that market orientation positively affects performance, how this effect takes place has not been studied sufficiently (Ketchen *et al.* 2007; Ndofor, Sirmon and He 2011). The same also applies to organizational resources in general (Kraaijenbrink, Spender and Groen 2010; Crook *et al.* 2008); however, current research does propose that resources, themselves, can hardly explain performance differentials among firms (Hunt and Morgan 1995; Priem and Butler 2001; Crook *et al.* 2008). Further, most studies agree that a facilitating organizational mechanism – an intervening process or a substantive moderator – is required for a firm to realize the potential value of market orientation or other resources (Fahy and Smithee 1999; Ketchen *et al.* 2007; Sirmon, Hitt and Ireland 2007). Although scholarly efforts to narrow the evident gap are underway, several fruitful avenues for research still exist. For example, organizational capabilities (Selznick 1957; Penrose 1959) provide a promising approach, as their role in the strategic orientations–business performance relationship is yet to be clarified (Murray, Gao and Kotabe 2011; Morgan, Vorhies and Mason 2009).

Organizational capabilities that refer to complex bundles of skills and accumulated knowledge that determine a firm's capacity to produce certain value activities are also important for companies because they reflect a firm's ability to compete in the current business environment (Grant 1996;

Day 1994). In this dissertation, I focus on market-based capabilities exercised through business processes and provide a potential performance mechanism for market orientation and other strategic orientations (Ramaswami, Srivastava and Bhargava 2009; cf. Bingham, Eisenhardt and Furr 2007). Market-based capabilities have the potential to unpack performance outcomes from strategic orientations as proficiency in business progresses. Researchers have proposed customer relationship management (CRM), product development management (PDM), and supply chain management (SCM) as potential mediators in a number of conceptual studies (e.g., Srivastava *et al.* 1999; Day 1994). Nevertheless, empirical studies have focused on PDM-specific capabilities and paid other business processes – and the capabilities therein – only scant attention. Consequently, business process or processes that play the most important translating role remain unclear (cf. Krasnikov and Jayachandran 2008).

Furthermore, despite certain exceptions (most notably, Morgan *et al.* 2009; Menguc and Auh 2006; Song *et al.* 2005; Moorman and Slotegraaf 1999; Dutta, Narasimhan and Rajiv 1999; Baker and Sinkula 1999b), the stream of research that has examined performance implications of potential complementarities within and between strategic orientations and value-creating market-based capabilities is still at its infancy (see Newbert 2007). This is surprising, given that potentially synergistic combinations of resources or capabilities are more likely to explain performance differentials and their sustainability than are single resources (Kraaijenbrink *et al.* 2010; Newbert 2007). For instance, market-based learning might leverage synergies between market-based capabilities and result in enduring superior performance (Kyriakopoulos and Moorman 2004; Sirmon *et al.* 2011). Further, an organizational configurations approach (Meyer, Tsui and Hinings 1993) offers a particularly promising method of inquiry to analyze higher-order interactions (Fiss 2007) and, thus, examining performance outcomes of complex interplay between several strategic orientations and market-based capabilities.

Another significant shortcoming in extant strategic marketing literature is the insufficient knowledge on whether and how different business environments and contexts moderate the relationships between strategic orientations, market-based capabilities, and business performance (Song *et al.* 2005; Priem and Butler 2001) or modify performance implications of organizational complementaries (Moorman and Slotegraaf 1999; Porter and Siggelkow 2008; Ennen and Richter 2010). This is unfortunate because appropriate accounting of contextuality would improve the relevance of scholarly propositions (Kraaijenbrink *et al.* 2010; Song *et al.* 2005). More specifically, ignorance of potential performance variation between different

external and internal contexts (cf. Homburg, Workman and Krohmer 1999) might lead to aggregation bias and consequent loss of validity of statistical conclusions (Grewal *et al.* 2011). Among others, dimensions of environmental turbulence (Jaworski and Kohli 1993), other industry characteristics, and the investigation of potential country-specificity hold promise for further contributions in examining the level and nature of contextuality in terms of performance implications of strategic orientations and market-based capabilities.

1.2 Theoretical Perspective: A Resource-based View of Marketing

The conceptual elements of the present study are derived from literature in marketing, strategic management, and organizational learning. More specifically, this study builds on two complementary perspectives: the resource-based view of the firm (RBV) (Wernerfelt 1984; Barney 1991) and the contingency approach (e.g., Zeithaml *et al.* 1988; Moorman and Slotegraaf 1999). The resulting perspective is coined here as the resource-based view of marketing.

The origins of the RBV can be traced back to the work of Penrose (1959); articles by Wernerfelt (1984) and Barney (1991) are also considered seminal in the development of the theory. Built to complement the industrial organization view (e.g., Porter 1980), RBV holds that organizational resources and capabilities explain sustainable competitive advantage (SCA) and performance differentials between firms within the same industry (Kraaijenbrink *et al.* 2010; Hunt and Morgan 1995). More specifically, RBV proposes that resources should be valuable and rare to yield sustained competitive advantage (Barney 1991, 107). Additionally, to increase their causal ambiguity (Lippman and Rumelt 1982; Dierickx and Cool 1989) and, thus, to increase difficulty of their imitation and enhance sustainability of competitive advantage, organizational resources should be complementary (Ennen and Richter 2010; Teece 2007; Amit and Schoemaker 1993).

Most scholars (e.g., Srivastava, Fahey and Christensen 2001) distinguish two resource types of an organization: assets and capabilities. Assets refer to resource endowments a business has accumulated (e.g., brand equity and efficiency in processes), whereas, capabilities bring these assets together and enable them to be deployed advantageously (Day 1994). In the context of this study, strategic orientations – as representations of organizational culture – fall into the sub-category of intangible assets. A number of academicians (e.g., Barney 1986; Fiol 1991) have proposed that

organizational culture can be a source of SCA and superior performance if it provides a basis for value-creating activities and capabilities. Organizational capabilities view, as introduced by Selznick (1957) and Penrose (1959), also developed into an important discourse within the RBV of a firm. The importance of organizational capabilities was re-introduced in the early 1990s (Grant 1991; Stalk, Evans and Schulman 1992; Lado and Wilson 1994; Day 1994) and today, scholars widely accept that capabilities play a vital role in customer value creation within several business processes of a firm (Ramaswami *et al.* 2009; Ketchen *et al.* 2007). Moreover, capabilities are deeply embedded in the fabric of an organization (Day 1994; Collis 1994) and are based on developing, carrying, and exchanging information through a firm's human capital (Amit and Schoemaker 1993). Consequently, capabilities – similar to resources – are difficult to imitate and provide meaningful grounds for SCA and superior performance (Fahy and Smithee 1999; Hooley, Greenley, Fahy and Cadogan 2001). Drawing on Srivastava *et al.* (2001), I propose that strategic orientations and market-based capabilities can be leveraged for market performance and financial returns through their ability to generate and sustain customer value.

Despite its strengths and contributions, RBV has been criticized for its internal focus and for presenting a static view of what is essentially a dynamic process (Sirmon *et al.* 2007; Day and Wensley 2002; Priem and Butler 2001; Dickson 1996). To overcome these clear limitations, a dynamic capabilities approach (Teece, Pisano and Shuen 1997; Eisenhardt and Martin 2000) was developed to extend RBV. Most recently, Day (2011) introduced the concept of adaptive marketing capability in which capabilities "augment and extend the existing dynamic capabilities so that rapid adjustments can be made" (p. 188). This concept can, nevertheless, be criticized because of the resemblances between 'adaptive marketing capability' and 'dynamic capability.' Theoretically, it is not sensible to add capability categories if they do not refer to truly new factual content. A number of academicians (e.g., Newbert 2007; Teece 2007; Crook *et al.* 2008; Grewal *et al.* 2011) have also criticized empirical studies on RBV for their focus on individual and separable resources and their inherent characteristics as contributors to performance differentials and, thus, neglect of potential synergies of resource combinations (Kraaijenbrink *et al.* 2010).

Furthermore, scholars have argued that RBV must be integrated more closely with an environmental demand model (Bourgeois 1985; Priem and Butler 2001) because a key assumption here is that value is a characteristic of one or more of the firm's resources, which may not hold in markets that

are not mature or predictable (Kraaijenbrink *et al.* 2010). That is, in unpredictable environments, where new technologies or markets emerge and the value of resources can vary considerably, it is necessary to go beyond RBV to explain a firm's SCA and performance (Kraaijenbrink *et al.* 2010; Miller and Shamsie 1996). Only then, can RBV realize its potential and provide answers to questions, such as those concerning the contexts that resources and capabilities contribute to competitive advantage and performance (Brush and Artz 1999; Fahy and Smithee 1999; Crook *et al.* 2008). As such, I propose that the contingency approach (e.g., Venkatraman 1989) provides a necessary complementary perspective for the RBV of a firm and corresponds to a need to address when, where, and how resources that are claimed beneficial may be valuable (Fredericks 2005; Barney 2001; Miller and Shamsie 1996).

The contingency approach was first adopted in marketing research in the 1980s (e.g., Ruekert, Walker and Roering 1985; Zeithaml *et al.* 1988). In the present study, contingency approach complements RBV in its emphasis on situational influences on the management of organizations and in questioning the existence of a single, universal way to gain superior business performance (cf. Moorman and Slotegraaf 1999; Venkatraman 1989). Contingency approaches are also useful for strategic marketing research as they provide a means to improve the generalizability of in-depth case studies of individual firms and achieve richer characterizations than can studies that attempt to find universal laws of marketing outcomes (Zeithaml *et al.* 1988). In other words, contingency approaches represent a means to focus on key situational relationships. This is important because elements within an organization and between an organization and the environment are interactive in nature (cf. Zeithaml *et al.* 1988).

Because of these interactions, the key concept in contingency approaches is 'fit' (Drazin and Van de Ven 1985). While other categorizations (e.g., Van de Ven and Drazin 1985) have been provided, one of the most comprehensive categorization of fit is that proposed by Venkatraman (1989). Specifically, Venkatraman suggested six perspectives of fit: fit as moderation, fit as mediation, fit as matching, fit as gestalts, fit as profile deviation, and fit as covariation. These perspectives refer to different levels of specificity of the functional form (e.g., interactive effects vs. patterns of configurations) and to different levels of applicability with regard to anchoring the concept of fit to a particular criterion (e.g., effectiveness) or to adopting a criterion-free specification (Venkatraman 1989). For the purposes of this study, three of these fit types are of particular interest.

First, moderation – following from the general proposition that no strategy (resource or capability) is universally superior, irrespective of the

environmental or organizational context – is the most commonly used perspective to fit (Venkatraman 1989). The moderation perspective suggests that the impact of a predictor variable on the form or strength of the criterion variable is systematically dependent on the level of a third variable, the moderator (Sharma, Durand and Gur-Arie 1981; Gerdin and Greve 2004). Second, mediation perspective emphasizes the existence of an intervening mechanism (e.g., business process) between an antecedent (e.g., marketing resources) and consequence (e.g., firm performance) (Baron and Kenny 1986; Ketchen *et al.* 2007). Third, fit as gestalt applies a systems approach (Drazin and Van de Ven 1985), which suggests that contingencies in performance relationships must be addressed by investigating frequently recurring clusters of attributes and performance outcomes of these clusters or configurations (Miller 1981; Meyer *et al.* 1993). According to the systems approach, firm performance and effectiveness can be achieved in multiple ways (e.g., Van de Ven and Drazin 1985).

When the RBV of a firm and contingency approach are combined, the resulting perspective (i.e., a resource-based view of marketing) holds that the appropriateness of different marketing resources, capabilities, and actions is contingent on competitive characteristics (Brush and Artz 1999; Amit and Schoemaker 1993). This is typically defined concerning organizational (e.g., Morgan *et al.* 2009) and business environmental (e.g., Song *et al.* 2005) contexts. Importantly, this perspective suggests that variations in business performance are not random, rather are a result of differences in situational factors in a firm's business environment (Brush and Artz 1999; Fredericks 2005). Furthermore, a firm's strategic actions are shaped, and their outcomes influenced, by external and internal contingencies (Varadarajan and Jayachandran 1999; Bourgeois 1985; Drazin and Van de Ven 1985); internal contingencies might refer to, for instance, organizational culture, structure, or complementary resources or capabilities. Consequently, a resource-based view of marketing is arguably a stronger and more applicable theoretical perspective than either RBV of a firm or contingency approach *per se*.

1.3 Prior Literature on Strategic Orientations

Strategic orientations are often considered the general, guiding principles that influence a firm's marketing and strategic activities (Noble, Sinha and Kumar 2002). The term strategic orientation has been used in a variety of

meanings; for example, in reference to strategy archetypes (e.g., Miles and Snow 1978; Porter 1980), as foundational business philosophy (e.g., Gatignon and Xuereb 1997), and as dimensions of competitive strategy (Venkatraman 1989). In this study, strategic orientations refer to managerial emphases in customer and competitor interfaces that are mostly reflected in and guided by a deeply rooted organizational culture (Narver and Slater 1990; Gatignon and Xuereb 1997; Zhou *et al.* 2005). This organizational culture might serve to allocate and leverage resources to achieve company goals through, among others, values, behaviors, management systems, decision criteria, and visionary planning (Barney 1986; Fiol 1991). In particular, market orientation, innovation orientation, and learning orientation are considered here because they all are highly internal to the firm and provide sustainability for potential competitive advantages and performance superiority. The following briefly introduces the three types of strategic orientation.

1.3.1 Market Orientation

To simplify, every company operates based on one of two fundamentally different orientations. Specifically, a company can either sell what it can makes (emphasis is on product features, quality, and price) (see Webster 1988), or it can make what it can sell (emphasis is on product benefits in comparison to competitors and ability to satisfy customer needs). The latter alternative describes a market-oriented approach that, according to majority of scholars (e.g., Day 1999; Baker and Sinkula 2005), has become ever more important for contemporary firms.

For the last two decades, market orientation has been a popular research subject in the field of marketing. Drucker (1954) and Keith (1960) are frequently considered discoverers of market orientation research. However, in the late 1980s, this concept was still only an abstract phenomenon with neither clear description nor conceptualization. This is identified in Shapiro's (1988) article, which is suggestively entitled, "What the Hell is 'Market Oriented'?" This managerial inquiry was published almost concurrently with the rediscovery of the marketing concept and the related concept of market orientation (Webster 1988). Further stimulated by the seminal articles of Narver and Slater (1990) and Kohli and Jaworski (1990), academic and managerial interest in market orientation has increased dramatically. Four central research questions have been of most interest to academicians: (1) What is market orientation? (2) How can the market orientation construct be operationalized and assessed? (3) What are

antecedents and consequences of market orientation? (4) How can firms become more market oriented? (van Raaij and Stoelhorst 2008).

To date, the majority of market orientation studies have taken either a cultural (e.g., Narver and Slater 1990) or behavioral (e.g., Kohli and Jaworski 1990) perspective as their theoretical point of departure. As such, two 'schools of thought' have emerged. Narver and Slater (1990, p. 20-21) defined market orientation as "the business culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for customers." This view is adopted in this dissertation. The other view provides for a more process-focused definition. Kohli and Jaworski (1990, p. 6) stated that market orientation refers to "the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it." While the above two definitions are, by far, the most frequently used, several academics (e.g. Ruekert 1992; Deshpandé, Farley and Webster 1993; Homburg and Pflesser 2000; Noble *et al.* 2002) have provided definitions of their own. Irrespective of the perspective taken, several points of convergence exist between most definitions, an emphasis on customers, the importance of shared knowledge (information), interfunctional coordination of marketing activities and relationships, and being responsive to market activities by taking appropriate actions (Lafferty and Hult 2001).

Furthermore, market orientation is socially complex in its structure and has components that are highly interconnected (Hunt and Lambe 2000), which is why market orientation cannot be purchased from the marketplace or be built into an organization overnight. On the contrary, Gebhardt, Carpenter and Sherry (2006) suggested that creating strong market orientation requires dramatic changes to an organization's culture as well as creating organizationally-shared market understanding. Given these characteristics, several scholars (e.g., Day 1994; Hunt and Morgan 1995; Hooley *et al.* 2005) have considered market orientation as a firm-level resource and as a potential contributor to performance differentials between companies.

One group of researchers (e.g., Gatignon and Xuereb 1997; Hurley and Hult 1998; Han *et al.* 1998; Dutta *et al.* 1999), proposed that strong market orientation is a fertile ground for innovation. For example, Connor (1999) suggested that market-oriented dialogue between a firm and its customers provides means to identify issues and source of ideas that are necessary to foster innovation. Hurley and Hult (1998) viewed market and learning orientations as antecedents of 'market-driven innovation.' Some researchers have also argued that an innovative culture encourages firms to

take market-oriented behaviors (Deshpandé and Farley 1998; O'Cass and Ngo 2007) or that the relationship is bidirectional (Theoharakis and Hooley 2008). During the past decade, a number of academicians have empirically found a positive relationship between market orientation and innovation orientation (e.g., Sandvik and Sandvik 2003; Hult *et al.* 2004; Mavondo *et al.* 2005; Olson *et al.* 2005; Paladino 2007, 2008). However, others have criticized market-oriented organizations for their reluctantancy of innovativeness (Berthon, Hulbert and Pitt 1999) and their devotion to listen to their customers too carefully to satisfy their expressed needs (MacDonald 1995; Christensen and Bower 1996). Given that firms should not only satisfy the needs and wants of their current customers, but also innovate, simultaneously, to create new customers and meet future needs (Berthon *et al.* 1999), 'being stuck in the present' can indeed be problematic in the long-term (Hunt and Morgan 1995).

In fact, what might complicate the examination of the relationship between market orientation and innovation orientation is the diverse set of proposed or existing innovation types. For instance, market orientation might facilitate technology-based innovations that address the needs of mainstream customers, but inhibit market-based innovations that initially address the needs of new and emerging markets (Zhou *et al.* 2005). To provide a partial solution to this issue, Narver, Slater and MacLachlan (2004) distinguish between responsive and proactive market orientation that are closely related with concepts market-driven and market-driving (e.g., Jaworski, Kohli and Sahay 2000; Tuominen, Rajala and Möller 2004), respectively. Of note, the former places its focus on discovering, understanding, and satisfying customers' expressed needs, whereas customers' latent needs are concentrated in the latter. This detailed conceptualization has only been used in a handful of recent studies (e.g., Li, Lin and Chu 2008). Moreover, the main interest within MO scholars is the degree of organizational market orientation, while research on the quality of market orientation, form, and different manifestations has remained scant (Greenley 1995; Dobni and Luffman 2000; Frösén *et al.* 2010; cf. Morgan *et al.* 2009).

1.3.2 Learning orientation

Learning orientation concerns organization-wide development and use of knowledge (e.g., Grinstein 2008b; Calantone *et al.* 2002; Bell *et al.* 2002). Additionally, learning orientation occurs primarily at the culture level of a firm (e.g., Hult *et al.* 2004). A frequently used conceptualization for

learning orientation is provided by Sinkula *et al.* (1997). Specifically, they argued that learning orientation gives rise to the set of organizational values that influence the propensity of a firm to create and use knowledge so that central to the organization's learning orientation is the fundamental value it holds toward learning. Sinkula *et al.* (1997) also stated that the three organizational values, in terms of direction and intensity of learning are routinely associated with the predisposition of the firm to learn and include 1) commitment to learning, 2) open-mindedness, and 3) shared vision. Further, the major dimensions of learning orientation affect the information that the organization attends to, interprets, evaluates, shares, and accepts or rejects (Sinkula *et al.* 1997; Calantone *et al.* 2002). Consistent with Huber (1991), I propose that learning orientation refers to the development of new knowledge, which potentially influences behavior through its values and beliefs within the culture of the organization.

Several shared characteristics, such as an attempt to explain market-sensing capability and a concern with understanding organization-wide phenomena (e.g., organizational culture and norms), can be identified between market orientation and learning orientation (e.g., Slater and Narver 1995; Dickson 1996; Bell *et al.* 2002; Baker and Sinkula 2002). Nevertheless, Baker and Sinkula (1999b) capture one of the key distinctions: market orientation is reflected by knowledge-producing behaviors, whereas learning orientation is reflected by a set of knowledge-questioning values. As such, learning orientation goes beyond a marketplace focus (Baker and Sinkula 1999b) and is a more pervasive resource than is market orientation because it has bearing on more than marketing and innovation-related activities for a firm (Baker and Sinkula 1999a). As Grinstein (2008b) synthesized, the adoption of a learning orientation leads firms to constantly question long-held assumptions about fundamental operating philosophies and re-examine their mental models and dominant logics (cf. Argyris and Schön 1978). Therefore, firms with strong learning orientation will encourage 'outside of the box' thinking (Baker and Sinkula 1999a; 1999b). More specifically, learning orientation requires management to question strategies and practices continuously and share knowledge to ensure that learning pervades all decisions and becomes embedded in decision rules (Hult 1998; Paladino 2008).

Extant studies have provided evidence that market orientation and learning orientation are empirically distinct (Baker and Sinkula 1999b), yet closely related concepts (Grinstein 2008b; Foley and Fahy 2009; Baker and Sinkula 2002). However, researchers have not found agreement on which one precedes another. For example, one group of scholars (e.g., Slater and Narver 1995; Farrell and Oczkowski 2002) argue that market orientation is

necessary for the creation of a learning organization. The rationale for this view is that market orientation is the underlying set of organizational values that provide the cultural framework from which a learning orientation can develop (e.g., Sinkula *et al.* 1997; Farrell 2000; Farrell and Oczkowski 2002; Zhou *et al.* 2005). Dickson (1996) also argued that market orientation describes a set of processes that enable firms to learn; however, Slater and Narver (1995) claimed that cultural-level market orientation is still insufficient to create a learning organization.

Another group of scholars (e.g., Baker and Sinkula 1999b; Mavondo *et al.* 2005; Paladino 2007; 2008) propose that learning orientation provides a solid ground to develop market orientation. Day (1994) and Paladino (2007), among others, argued that firms can foster market orientation within a climate of learning so that they are the first to 'learn to learn' about markets. In particular, researchers argue that organizational learning has a critical impact on market-oriented thought processes and related behaviors (Paladino 2007; Bell *et al.* 2002; Sinkula 1994). Moreover, Mavondo *et al.* (2005) proposed that, without a culture of learning, market orientation is unlikely to be sustained. Because it is difficult to determine whether market orientation or learning orientation is an antecedent to the other, Yilmaz, Alpkan and Ergun (2005) suggested a bidirectional relationship between the two, whereas it could be that a combination of market orientation and learning orientation results in market-based learning (Baker and Sinkula 2002).

Learning orientation is essentially manifested as a dynamic process (Sinkula *et al.* 1997; Baker and Sinkula 1999b) and firms that proactively address all key elements of learning orientation have the greatest opportunity to learn frequently and effectively (Sinkula *et al.* 1997). Learning orientation is also likely to increase the rate of internal and external change within a company; however, such an orientation is an outcome of carefully cultivated attitudes and management processes that take a considerable amount of time to develop (Baker and Sinkula 1999b; Garvin 1993). The potential reward from engaging in learning is substantial; however, as and organizations' learning orientation grows, it no longer only recognizes and exploits opportunities, rather is also capable of proactively creating new opportunities (Belohlav 1996). Additionally, continuous learning reduces the likelihood of ignoring potential emerging trends and practices (Paladino 2008). Finally, as learning can be viewed as a complex cultural resource, it bears potential to create SCA and superior performance (Hunt and Morgan 1995, 1996; Dickson 1996).

1.3.3 Innovation Orientation

Another strategic orientation that has gained remarkable academic interest is innovation orientation (for an extensive review, see Siguaw, Simpson and Enz 2006) and its outcomes (Simpson, Siguaw and Enz 2006). A possible explanation of the importance of innovativeness is that long-term survival and success depend on an organization's ability to "engage in sufficient exploitation to ensure its current viability and, at the same time, to devote enough energy to exploration to ensure its future viability" (Levinthal and March 1993, p. 105). Additionally, innovation orientation has frequently been referred to as openness to new ideas and innovative behaviors as an aspect of a firm's culture (Hurley and Hult 1998; Menguc and Auh 2006). Siguaw *et al.* (2006) synthesized prior conceptualizations in the proposal that innovation orientation is a multidimensional knowledge structure that guides and directs all organizational strategies and actions. In other words, innovation orientation is a learning philosophy that drives the firm's strategy, learning, and functional interactions toward the goal of innovation (ibid.). While I adopt the above definition of innovation orientation, some authors (e.g., Damanpour and Gopalakrishnan 2001) have proposed that it consists of both strategic intentions and actual behaviors. In addition, different types of innovation orientation have been proposed (e.g., Manu 1992; Jin *et al.* 2004).

Like market orientation, innovation orientation is usually considered a deeply inherent and valuable organizational resource in that it provides direction for a firm to deal with different markets (Manu 1992; Menguc and Auh 2006). Organizations with a strong innovative culture may question whether market-driven behaviors are the only way to achieve market success (O'Cass and Ngo 2007) rather than simply strive for market-driving behaviors. Hooley and Greenley (2005) proposed that highly innovation-oriented firms differentiate themselves from other companies mainly by the degree of innovation they build into their offerings. Researchers have further argued that, because of the complexity of the process of innovativeness, a position based on complexity is likely to enjoy a high degree of defensibility (Hooley and Greenley 2005; Hult *et al.* 2001; Menguc and Auh 2006).

As an example, we might consider the first-mover advantage: the competitive situation for a late-comer is difficult if a first-mover has established a strong foothold within the market (Lieberman and Montgomery 1988). Of course, a firm that has built a market-oriented culture might have a better rate for new product and service success, even though the firm might not be the first on market, which would also allow

that firm to learn from its competitors' mistakes. Consequently, it does not always pay off to be first in the market (Lieberman and Montgomery 1988). In similar vein, no strategic orientation is free of cost (cf. Kumar *et al.* 2011) and, consequently, the level and quality of market, learning, and innovation orientation should be adjusted so that they align with the characteristics (e.g., level of competition) of the market as well as with other resources and capabilities of a firm. Doing so will result in the best possible financial outcomes.

Although new market entry is more closely related to entrepreneurial orientation, not innovativeness (Lumpkin and Dess 1996; cf. Manu 1992), Menguc and Auh (2006) suggested that innovativeness implies that a firm is proactive by exploring new opportunities rather than merely exploiting current strengths. To complicate the distinction between the two constructs, innovativeness is included in Matsuno *et al.*'s (2002) conceptualization of entrepreneurial proclivity. This close relationship was one reason that entrepreneurial orientation (Zeithaml and Zeithaml 1984) does not receive closer examination in this study.

Within extant literature, learning orientation is often regarded as a critical culture-level factor that emphasizes ongoing development of insight and general knowledge (Cohen and Levinthal 1990; Hult *et al.* 2004). As such, it is a requisite to establish a culture that is receptive to innovation and aspires to stand out through product or service development (Siguaw *et al.* 2006; Hurley and Hult 1998; Dickson 1996; Farrell 1999; Baker and Sinkula 1999a; Calantone *et al.* 2002; Lee and Tsai 2005). Hult *et al.* (2004, 436) proposed that "firms that are market and learning oriented will tend to be more in touch with buyers and understand their markets better, advantages that in turn should translate into innovative activities that give rise to superior products, processes, and administrative approaches". In this regard, Baker and Sinkula (2002) conceptually proposed that the combination of strong a learning orientation and a strong market orientation is characterized by generative learning approach that enables radical innovation. Additionally, in their empirical study, Weerawardena and O'Cass (2004) demonstrated that market-focused learning leads to higher degrees of organizational innovation. Moreover, there is a reason to believe that the management of innovation is more proactive in learning-oriented firms than it is in others because they are encouraged to break away from traditional paradigms (Baker and Sinkula 1999a).

1.4 Prior literature on Market-based Capabilities

Today, scholars widely accept that, although resources are the source of value, a firm must apply them to create outputs that will be valued by external stakeholders (Ketchen *et al.* 2007; Newbert 2007; Srivastava *et al.* 2001; cf. Penrose 1959). This is where organizational capabilities come into play. In this study, capability refers to a firm's capacity to produce a certain value activity (Grant 1996). Moreover, capabilities are based on developing, carrying, and exchanging information through a firm's human capital (Amit and Schoemaker 1993) and are closely related to several organizational processes (Ramaswami *et al.* 2009; Ketchen *et al.* 2007). In the following, concepts, capabilities, and competencies are used interchangeably, similarly to the majority of extant studies (e.g., Prahalad and Hamel 1990; Grant 1996).

Prior literature in marketing and strategic management has identified several approaches to analyzing firm capabilities. These include, among others, static versus dynamic versus adaptive capabilities (e.g., Teece *et al.* 1997; Day 2011), internal and external capabilities (e.g., Day 1994), organizational versus managerial capabilities (Möller and Törrönen 2003), and specialized versus architectural capabilities (e.g., Vorhies and Morgan 2003). Importantly to this study, organizational capabilities do not vest in a single individual nor are they capable of being articulated by any one individual (Collis 1994).

The concept of market-based capability (Ramaswami *et al.* 2009) considers both outside-in and inside-out perspectives, which consists of four dimensions: 1) market-driven capability, 2) relationship-driven capability, 3) supply-chain capability, and 4) human resource capability (Aakouk 2006). These capabilities should also be balanced concerning their value creation and value capture dimensions (e.g., Dutta, Zbaracki and Bergen 2003). In the present study, two popular conceptualizations – marketing capabilities (Day 1994) and market-based business process capabilities (Srivastava *et al.* 1999; Ramaswami *et al.* 2009) – are considered. These are described briefly in the following.

1.4.1 Marketing (Outside-in, Spanning and Inside-out) Capabilities

Literature in marketing (e.g., Day 1994; Hooley, Broderick and Möller 1998) distinguishes between outside-in, spanning, and inside-out capabilities, which are also interrelated. While these capabilities differ in degree of focus on market interface, they all have potential to provide SCA . According to Day (1994), outside-in capabilities connect the processes that

define other organizational capabilities to the external environment and enable a business to compete by anticipating market requirements ahead of competitors, thus creating durable relationships with customers and other shareholders. These capabilities include market-sensing and customer-linking capabilities that are characteristic for market-driven firms (ibid.). Capabilities can also be immediately deployed in the marketplace to directly create or maintain competitive advantage (Hooley *et al.* 2005; Day 1994). Aakouk (2006) suggested that outside-in capabilities include market-driven capabilities, such as customer-driven and technology-monitoring capabilities, and relationship-driven capabilities, such as customer-linking and supplier-linking capabilities. It can be argued that, as marketplaces become increasingly dynamic (e.g., O'Regan *et al.* 2006), outside-in capabilities become more important.

Inside-out capabilities, on the other hand, are highly internal and unfold what the firm is good at and capable of doing (Day 1994). These refer to managerial capabilities, such as supply-chain and human-resource capabilities, which can be usefully categorized along traditional functional lines (Hooley *et al.* 2005; Aakouk 2006). Although these capabilities serve primarily to support marketing activities, inside-out capabilities are also based on experience and knowledge and, thus, are deeply embedded in the organization and serve as an indirect basis for SCA (Hooley *et al.* 2005). However, they are considerably further from the market interface than are outside-in capabilities. Therefore, organizations would need something to integrate the outside (market) information with the inside (organizational) processes of a firm.

The integration of outside information and inside processes refers to spanning capabilities (Day 1994), as seen in Figure 1. For example, the inside-out capability of manufacturing custom products at a low cost requires a synthesizing outside-in capability to understand the evolving needs of the customer if the firm wants to take full advantage of its organizational knowledge and abilities.

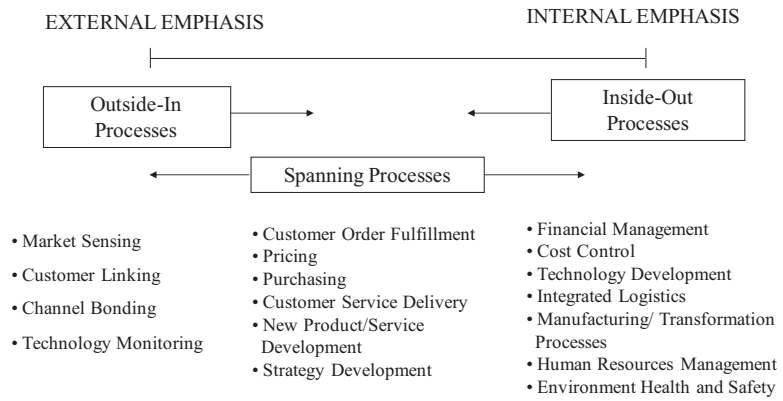

Figure 1 Marketing capabilities (Day 1994)

Of the different spanning capabilities, I focus on innovation capability (e.g., Lawson and Samson 2001) because prior research proposes that the interplay between marketing and innovation is important for value creation and might leads to synergetic performance outcomes (e.g., Drucker 1954; Menguc and Auh 2006). Following Schumpeter (1934), extant literature has identified several types of innovation, including product or service innovations, organizational and managerial innovations (e.g., Subramaniam and Youndt 2005; Jin *et al.* 2004), process innovation (Howard 1983), proactive versus reactive innovation (Hunt and Morgan 1996), and radical versus incremental innovation (e.g., Dewar and Dutton 1986; Tushman and O'Reilly 1996; Raisch and Birkinshaw 2008). For example, incremental innovation represents relatively minor adaptations of existing products and business concepts, which are designed to meet existing customer's needs. In contrast, radical innovation refers to fundamental changes that lead to a switch from existing products or concepts to completely new ones designed to meet the needs of emergent customers (Raisch and Birkinshaw 2008; Tushman and Smith 2002). Given these different innovation types, there are also different types of innovation capabilities. For the purposes of this study, I adopt a definition by Lawson and Samson (2001) who proposed that innovation capability are "the ability to continuously transform knowledge and ideas into new products, processes and systems for the benefit of the firm and its stakeholders" (p. 384).

1.4.2 Market-based Business Process Capabilities

Business processes refer to combinations of actions or work practices that a firm engages in to accomplish defined business purposes or objectives

(Srivastava *et al.* 1999; Day 1994). Such capabilities provide the means to realize the competitive potential of a firm's resources and capabilities (Porter 1991) because resources and capabilities are exposed to the market through business processes (Ray, Barney and Muhanna 2004). Furthermore, capabilities enable activities in a business process to be carried out, which imply that each business process subsumes a large number of sub-processes (Srivastava *et al.* 1999) that could also be referred to as business process capabilities. Several scholars (e.g., Amit and Schoemaker 1993; Day 1994; Ray *et al.* 2004; Bingham, Eisenhardt and Furr 2007) have noted the difficulty of distinguishing between business processes and capabilities. In this study, capabilities are considered a part of these business processes and I am more interested in capabilities that drive business processes than in the business processes themselves (cf. Peteraf and Bergen 2003). Additionally, I adopt Srivastava *et al.*'s (1999) categorization of three core business processes (PDM, CRM and SCM) that address fundamental business tasks necessary to create value for customers.

The first of Srivastava *et al.*'s (1999) core (market-based) business processes, PDM process, responds to, or triggers, customer needs and wants by creating new customer solutions and fine-tuning existing solutions. As such, PDM is closely related to innovation capability (e.g., Lawson and Samson 2001; cf. Hooley *et al.* 2005). The second process, SCM, manages acquisition of physical and informational inputs and conversion of those into desired customer outputs as efficiently and effectively as possible. Lastly, CRM processes refer to those processed that manage the identification of customers, creation of customer knowledge, building customer relationships through customer experiences, and shaping customer perceptions of the organization's products and image. (Srivastava *et al.* 1999; Ramaswami *et al.* 2009) Although other closely related conceptualizations (Hagel and Singer 1999; Lehmann 1997; Treacy and Wiersema 1993) are available, Srivastava *et al.*'s (1999) framework has been the most frequently cited.

Market-based processes result from intellectual and relational market-based assets (Srivastava *et al.* 2001). Each market-facing business process is cross-functional and marketing plays different, but important, roles within each (Lehmann 1997; Hagel and Singer 1999). Specifically, in contemporary firms, marketing is likely to emerge as an orchestrating function in CRM, but plays a minor role in PDM and SCM processes (Srivastava *et al.* 1999). However, if PDM and SCM processes are dominated by technology and engineering-driven organization cultures – such is the case in many Finnish companies (cf. Jaakkola *et al.* 2010) –

marketing may be reduced to a subordinate selling role (Srivastava *et al.* 1999). Importantly, the three core business processes are dependent so that potential synergies exist between them (Srivastava *et al.* 1999). In a recent study, Ramaswami *et al.* (2009) suggested that market-based capabilities are becoming more important sources of competitive advantage and cross-relationships among business processes remains an under researched topic.

1.5 Strategic Orientations, Market-based Capabilities and Business Performance

Prior empirical studies that have examined business performance implications of strategic marketing can be divided into four broad categories. First, studies that examine direct links between different marketing-related resources and capabilities and business performance (e.g., Narver and Slater 1990) used to dominate the field. Second, increasing interest has been placed on mediated models (e.g., Murray *et al.* 2011; Langerak *et al.* 2007; Paladino 2008) where marketing capabilities are typically treated as antecedents of business performance and as consequences of certain marketing resources. Third, moderated statistical models where a) business environment or organizational characteristics strengthen or diminish performance effects from organizational resources and capabilities (e.g., Slater and Narver 1994a; Menguc and Auh 2009) or b) different resources and capabilities are treated as complementary, have become ever more popular (e.g., Menguc and Auh 2006; Morgan *et al.* 2009; Song *et al.* 2005). Moderated models overcome limitations of direct effects and mediated models because they do not consider research constructs in isolation from each other or from organizational or business contexts. To take this idea even further, configurational techniques (cf. Fiss 2007) can incorporate comprehensive sets of organizational and contextual concepts into analysis. However, configurational approaches have received only scant attention in strategic marketing.

The core of extant research studying either conceptually or empirically substantive mediators and moderators on the market orientation–business performance relationship is presented in Table 1. For more detailed summary of empirical mediation studies, see Essay II. From Table 1, it is evident that both conceptual and empirical studies focus on the interplay between market orientation and market-based capabilities are conspicuous by their absence.

Table 1 Summary of key studies examining substantive mediators and moderators on the market orientation–performance relationship

	Mediator(s)	Moderator(s) (interactions)
Strategic orientations	***Conceptual studies*** Learning orientation (Slater and Narver 1995) ***Empirical studies*** Innovativeness (Noble *et al.* 2002; Hurley and Hult 1998; Han, Kim and Srivastava 1998)	***Conceptual studies*** Innovation orientation (Berthon, Hulbert and Pitt 1999) Learning orientation (Baker and Sinkula 2002) ***Empirical studies*** Innovativeness (Menguc and Auh 2006) Learning orientation (Baker and Sinkula 1999b) Innovation orientation (Berthon, Hulbert and Pitt 2004)
Market-based capabilities	***Conceptual studies*** Customer service, quality, innovation capabilities (Slater and Narver 1994b) CRM, PDM and SCM process capabilities (Srivastava, Shervani and Fahey 1999) ***Empirical studies*** Marketing capabilities (Murray, Gao and Kotabe 2011) Customer-linking, innovation capabilities (Hooley *et al.* 2005) Organizational responsiveness (Hult, Ketchen and Slater 2005) Capacity to innovate (Hurley and Hult 1998)	***Conceptual studies*** Market-sensing and customer-linking capabilities (Day 1994) ***Empirical studies*** Marketing capabilities (Morgan, Vorhies and Mason 2009)

1.5.1 Direct and mediated performance effects

Although the results are not fully conclusive, prior empirical research has found that market orientation (for meta-analyses, see Kirca *et al.* 2005; Ellis 2006; Cano *et al.* 2004), innovation orientation (e.g., Deshpandé *et al.* 1993; Hult and Ketchen 2001; Theoharakis and Hooley 2008), and learning orientation (e.g., Baker and Sinkula 1999b; Calantone *et al.* 2002) drive superior firm performance. However, studies addressing direct associations between strategic orientations and performance often suffer from over-simplicity by neglecting action components that help organizations exploit their resources beneficially (e.g., Hunt and Morgan 1995; Ketchen *et al.* 2007; Ray, Barney and Muhanna 2004). Specifically, research has been unable to uncover *how* strategic orientations affect performance.

To overcome this evident shortcoming, a number of recent studies have considered strategic orientations as organizational means to improve a number of marketing capabilities that further explain firm performance differentials. For instance, research has revealed that market orientation improves firm performance by enhancing customer value via product and service development and innovative activities. The result is that firms create a better fit between what consumers seek and what the firm offers (Deshpandé *et al.* 1993; Vázquez, Santos and Álvarez 2001; Hult *et al.* 2004; Baker and Sinkula 2005; Grinstein 2008a; Ramaswami *et al.* 2009). Similarly, extant studies have found that market orientation importantly drives a firm's customer-linking capabilities that are associated with improved business performance (e.g., Rapp, Trainor and Agnihotri 2010; Hooley *et al.* 2005). In light of empirical evidence, learning orientation also provides a means to enhance innovativeness (Calantone *et al.* 2002; Mavondo *et al.* 2005; Hurley and Hult 1998), organizational adaptiveness (Morgan and Strong 1998; Day 2011), and market-based capabilities (Verona 1999; Hult *et al.* 2004) en route to the success of an organization.

Moreover, market orientation has been argued to boost the effectiveness of key value-creating business processes in firms (Srivastava *et al.* 1999; Slater and Narver 1994b). These processes are important in helping firms improve customer satisfaction and, consequently, customer loyalty, retention, and profitability (Srivastava, Shervani and Fahey 1998; Ray, Barney and Muhanna 2004). In addition to enhancing product development management capabilities (e.g., Slater and Narver 1994b; Han *et al.* 1998; Noble *et al.* 2002; Atuahene-Gima 2005; Langerak *et al.* 2007; Hooley *et al.* 2005), empirical studies have provided evidence that market orientation positively influences capabilities in customer relationship

management and supply chain management processes (e.g., Rapp, Trainor and Agnihotri 2010; Hult, Ketchen and Slater 2005; Hooley *et al.* 2005; Min, Mentzer and Ladd 2007; Martin and Grbac 2003).

Although conceptual and empirical research has proposed and tested different mediators – mostly capabilities – on the relationship between market orientation and business performance, at least one notable research gap still exists. Specifically, studies have remained silent about the *relative* roles of different capabilities in translating market orientation into business performance. Thus, both academia and managerial audiences would benefit from studies in which a comprehensive set of mediators were examined in a single study. Such a study could then make comparisons between these mediators (cf. Ramaswami *et al.* 2009; Krasnikov and Jayachandran 2008). Likewise, mediators would control each other and the analysis would show more reliably whether individual mediators actually translate the antecedent into the outcome. In this study, the mediating roles of core business process capabilities are examined.

In terms of direct capability-performance relationships, extant literature found that different marketing capabilities (e.g., Hooley *et al.* 2005; Vorhies and Morgan 2005; Song *et al.* 2007; Ramaswami *et al.* 2009; Krasnikov and Jayachandran 2008), innovation capability (e.g., Hult *et al.* 2004; Hooley *et al.* 2005), and customer-linking capability (e.g., Rapp *et al.* 2010; Hooley *et al.* 2005) are positively related to business performance. Ramaswami *et al.* (2009) reported that, out of the three core business processes, CRM capabilities are the most influential and PDM capabilities are important performance antecedents; SCM capabilities were the least important in influencing firm performance, but this might have been because the role of SCM capabilities as a 'hygiene factor' in ensuring organizational efficiency. This also lends support to Nath *et al.*'s (2010) findings.

1.5.2 Synergistic performance relationships

The dissertation focuses on three types of synergistic relationships, relationships between different strategic orientations (e.g., Menguc and Auh 2006), relationships between different market-based capabilities (e.g., Moorman and Slotegraaf 1999), and relationships between strategic orientation and market-based capabilities (e.g., Morgan *et al.* 2009). While all these relationships have received only limited research interest to date, one could argue that the last category is in its infancy. Scant scholarly focus on potential synergies is unfortunate as combinations of orientations and

capabilities often result in improved basis for value creation, value capture, and defensibility of market position and competitive advantage (Dierickx and Cool 1989). Moreover, marketing phenomena rarely exists in isolation from each other or from a business context. Consequently, excluding interaction terms from empirical analysis might lead to misleading results and counter-productive managerial conclusions (Song *et al.* 2005).

Recent research has revealed that firms may find it more useful to combine market orientation with other strategic orientations (Grinstein 2008b). Specifically, firms that combine market orientation with other orientations perform better than do firms that adopt only market orientation (e.g., Atuahene-Gima and Ko 2001; Baker and Sinkula 1999a; Bhuian, Menguc and Bell 2005; Menguc and Auh 2006). For example, emphasizing market orientation and neglecting innovativeness can prevent firms from realizing the true potential of their market orientation, whereas – at best – a combination of market orientation and innovativeness could result in a dynamic capability for a company (Menguc and Auh 2006). This is, however, not to say that firms that have both strong market orientation and innovation orientation would always outperform others (Berthon *et al.* 2004). Prior research has also found a synergistic performance effect between market and learning orientations in that a firm's learning orientation (or knowledge integration) is likely to improve the quality of its market-oriented behaviors and its abilities and effectiveness in regard to innovation (Baker and Sinkula 1999a, 2002; De Luca, Verona and Vicari 2010).

Another type of synergistic relationship is that between different market-based capabilities. The logic here is that certain organizational capabilities complement each other significantly. For example, this could refer to a situation where a company's marketing capability enhances its ability to generate innovative technologies that have applications across a range of industries (Dutta *et al.* 1999). Another example could be the necessity of a value appropriation mechanism, such as pricing capability, to capture benefits gained from the value-creating capabilities (Dutta, Zbaracki and Bergen 2003). Additionally, extant literature suggests that an efficient integration of marketing and operating functions leads to improved organizational performance (Nath *et al.* 2010). Further, the synergies between the three core business processes (CRM, PDM, and SCM) and the capabilities within these processes can be found (Ramaswami *et al.* 2009). Moreover, Vorhies, Morgan and Autry (2009) found that integrating architectural and specialized capabilities can result in synergistic performance outcomes.

Of the potential capability complementarities between marketing and innovation (or technological), capabilities has received most attention (e.g., Moorman and Slotegraaf 1999; Dutta *et al.* 1999; Song *et al.* 2005). This is intuitive, given that firms need to excel at two things to succeed, the ability to come up with innovations constantly and the ability to commercialize innovations into the types of products that capture consumer needs and preferences (Dutta *et al.* 1999; Hooley *et al.* 2005; Drucker 1954).

The results of these enquiries have supported the importance of the complementarity of marketing and R&D or innovation capabilities in achieving improved business performance (Moorman and Slotegraaf 1999; Dutta *et al.* 1999; Song *et al.* 2005). However, another source of potential complementarities exists between strategic orientations and market-based capabilities. The rationale behind such synergies is that, as capabilities are more concrete and resemble activity-level constructs, they help firms realize the potential value of its resources that include strategic orientations (e.g., Ketchen *et al.* 2007; Morgan *et al.* 2009). For instance, organizations without the capacity and willingness to innovate may invest time and resources in studying markets; however, may find that they are unable to translate this knowledge into practice (Hult *et al.* 2004; O'Cass and Ngo 2007). On the other hand, strategic orientations provide an organizational culture that facilitates the development and deployment of market-based capabilities (e.g., Dutta *et al.* 2003; Luo 2002; Matear *et al.* 2002). Together, these orientations and capabilities result in a resource composite that competitors might find difficult to imitate (Dierickx and Cool 1989).

In terms of strategic orientations, scholars have neglected the role played by complementary capabilities. Of note, in the 1990s, Day (1994) did conceptually propose that market-oriented organizations have superior outside-in capabilities (market-sensing, customer-linking, and channel-bonding). However, empirical research has not actively followed this lead although it should be of managerial interest to know whether the source of superior business performance flows from the combination of market orientation and relevant organizational capabilities, given that market orientation, itself, is unlikely to suffice (e.g., Hult *et al.* 2005). In one empirical study, Morgan, Vorhies and Mason (2009) concluded that market orientation and marketing capabilities (referring to seven capability categories) are complementary assets that contribute to superior firm performance, potentially because these elements logically constitute necessary conditions for a firm's dynamic capabilities (ibid.). Given this initial encouragement, while rather general-level result, future studies could take the analysis to a more detailed level by examining whether

individual capabilities, such as innovation or customer-linking capabilities, complement market orientation or other strategic orientations.

1.5.3 Configurational approach to performance differentials

Vast majority of prior conceptual and empirical studies have limited their investigations into the performance implications of only two complementary resources or capabilities. This is arguably a limitation because the reality is likely to be far more complex (cf. Meyer *et al.* 1993) than those studies conceptually assume. Configurational approaches take a step further from analyzing the moderating effects in that they are able to study combinations of more than two constructs at a time, without compromising the interpretability of findings. These approaches break from a linear paradigm and adopt a systems perspective (Drazin and Van de Ven 1985). As such, they more holistically capture bundles of organizational characteristics for empirical examination. At the same time, configurational approaches examine combinations or profiles, rather than individual concepts and their relationships (e.g., Fiss 2007).

Concerning extant research in strategic marketing, empirical use of configurational approaches is nearly non-existent (for notable exceptions, see Vorhies and Morgan 2003; Gruber *et al.* 2010). One exception is Gruber *et al.*'s (2010) recent study, which examined combinations of resources and capabilities in sales and distribution. Gruber *et al.* (2010) identified four resource-capability configurations of which two – 'Sales and distribution all stars' and 'Efficiency centrics' – resulted in superior sales and distribution performance and, consequently, superior firm performance. Prior research has also identified various market orientation profiles (e.g., Greenley 1995; Dobni and Luffman 2000) and performance differentials between different innovator types (Jin *et al.* 2004; Manu 1992; Manu and Sriram 1996). From their part, Vorhies and Morgan (2005) paved the way for future research in their examination – and identification – of inter-dependencies among multiple marketing capabilities, such as pricing, selling, marketing communication, product development, channel management, and market information management. Configurational studies could improve critically scholarly understanding of what types of resource- capability combinations result in superior performance outcomes; however, this potential value added has yet to be realized.

1.6 The Contingency Perspective on the Performance Implications of Strategic Marketing

In addition to potential performance outcomes of strategic marketing, it is crucial to know whether outcomes are context-specific or independent of the business context (e.g., Menguc and Auh 2009; Moorman and Slotegraaf 1999). A contingency perspective posits that external and internal business contexts influence performance implications of firm resources and capabilities (Slater *et al.* 2006), and synergistic rents cannot always be obtained (Song *et al.* 2005; Berthon *et al.* 2004). Consequently, market orientation might not be equally critical to improved business performance under all external conditions (e.g., Kohli and Jaworski 1990; Harris 2001). In addition, prescriptions for building organizational capabilities are likely to be elusive, as they fail to meet the conditions of being generically valuable sources of competitive advantage and performance differentials in all industries during all periods of time (Collis 1994). Thus, firms might have to develop different strategic orientations and market-based capabilities for different business environments (Collis 1994; Noble *et al.* 2002; Song *et al.* 2005). Extant research that has focused on external and internal contingencies concerning performance implications of strategic orientations and market-based capabilities is summarized in Table 2.

Table 2 Effects of external and internal business contexts on business performance

Context	Author(s)	Study type	Antecedent(s)	Moderator	Moderation
External	Kirca *et al.* (2005; meta-analysis)	Empirical	Market orientation	Environmental turbulence	No
	Eisenhardt and Martin (2000)	Conceptual	Org. capabilities	Market dynamism	-
	Song *et al.* 2005	Empirical	Marketing capabilities	Technological turbulence	Yes (negative)
	Theoharakis and Hooley 2008	Empirical	Customer orientation, innovativeness	Country setting (New vs. Old Europe)	Yes
	Jaworski and Kohli (1993)	Conceptual	Market orientation	Environmental turbulence	-
	Hult, Hurley and Knight (2004)	Empirical	Capacity for innovation	Market turbulence	No
	Manu 1992	Empirical	Innovativeness	Country setting (U.S. vs. European)	Yes
	Rapp, Trainor and Agnihotri (2010)	Empirical	Customer-linking capability	Environmental dynamism	No
	Krasnikov and Jayachandran (2008; meta-analysis)	Empirical	Firm (marketing, R&D and operations) capabilities	B-to-B vs. B-to-C; manufacturing vs. service firms; U.S. vs. non-U.S.	No
Internal	Menguc and Auh (2009)	Empirical	Market orientation	CEO background	Yes (positive)
	Song, DiBenedetto and Nason (2007)	Empirical	Marketing, technology, market-linking capabilities	Strategy types	Yes
	Krasnikov and Jayachandran (2008; meta-analysis)	Empirical	Firm capabilities	Firm size	No
	Ramaswami *et al.* (2009)	Empirical	Market-based capabilities	Firm size, firm age	Yes
	Slater, Olson and Hult (2006)	Empirical	Strategy formation capability	Strategy types	Yes
	Morgan *et al.* (2009)	Empirical	Marketing capability	Market orientation	Yes (positive)
	Matear *et al.* (2002)	Empirical	New service development	Market orientation	No

1.6.1 External moderators

Extant research has placed more focus on potential performance impacts of external business context characteristics than it has on examining the moderating role of internal business context (cf. Homburg, Workman and Krohmer 1999). From different external contexts, environmental turbulence (Jaworski and Kohli 1993) has perhaps gained most popularity and the performance impact of market orientation has been found more important under low market turbulence (Slater and Narver 1994a; Paladino 2008). Berthon *et al.* (2004) found that, depending on the level of turbulence in the environment, combinations of customer orientation and innovation orientation perform differently. Song *et al.* (2005) found that, when organizational capabilities are considered, high technological turbulence reduces the value of marketing capabilities and the interaction between marketing and technology capabilities is significant only in the high-turbulence environment. Eisenhardt and Martin (2000) proposed that the type of capabilities required to drive firm performance is likely to vary with the dynamism of the market, while environmental uncertainty is argued to influence capability development (Sirmon *et al.* 2007).

Even in the market orientation discourse that is perhaps the most extensively examined potential moderator of performance outcomes, evidence is partly conflictive and inconclusive (Kirca *et al.* 2005; Sørensen 2009). Furthermore, concerning market-based capabilities, extant research provides only a sketch of the moderating roles of environmental turbulence. Consequently, there have been some recent calls to consider different contextual conditions that might moderate capability-performance relationships (e.g., Ramaswami *et al.* 2009; Krasnikov and Jayachandran 2008). Given current and limited knowledge, it might be risky for a manager to attempt to adjust the business' strategic orientations and market-based capabilities to match current market conditions (e.g., Slater and Narver 1994a; Berthon *et al.* 1999, 2004).

In addition to the moderating effects of environmental turbulence, a number of external business contexts have been evidenced to affect the strength of performance implications of strategic marketing. Such moderators include market growth (e.g., Slater and Narver 1994a; Pelham 1999; Gray *et al.* 1999), buyer power (e.g., Slater and Narver 1994a; Gray *et al.* 1999), demand uncertainty (e.g., Gatignon and Xuereb 1997; Grewal and Tansuhaj 2001; Zhou and Li 2010), supplier power (Kumar, Subramanian and Yauger 1998), and extent of entry barriers (e.g., Gray *et al.* 1999; cf. Kirca *et al.* 2005). These

moderators refer to differences in industry, market type (B-to-B vs. B-to-C), offering type (goods vs. services), and country settings. The context-dependency of the above dimensions has been studied to the extent that some meta-analytical findings are available. For example, Kirca *et al.* (2005) evidenced that the market orientation–performance relationship is stronger for manufacturing firms than it is for service firms. However, this finding is contrary to Cano *et al.* (2004) who suggested that performance relationships are stronger in service companies. Conversely, in terms of the organizational capability-business performance link, differences between manufacturing and service companies are not statistically significant (Krasnikov and Jayachandran 2008). For example, Homburg *et al.* (1999) found that the influence of marketing is unresponsive between consumer goods and industrial goods companies. While prior research remains mostly silent about performance implications of strategic orientation between B-to-B and B-to-C markets, Krasnikov and Jayachandran's (2008) meta-analysis did not reveal differences in regard to the capability-performance link.

A limited number of studies have also examined country-specificity of performance implications. Manu (1992) demonstrated that the innovativeness-performance relationship differs between U.S. and European companies, whereas Theoharakis and Hooley (2008) found that national context moderated differences in the effect of customer orientation and organizational innovativeness on service performance. Clear differences were also found by Homburg *et al.* (1999); specifically, they found that the influence of marketing is greater in the U.S. than it is in Germany. They further suggested that this finding reflects more negative attitudes toward marketing in Germany (ibid.), whereas more positive attitudes might have to do with R&D and process efficiencies. Even though some conflicting results (Deshpandé, Farley and Webster 2000; Cano *et al.* 2004) have been reported, Kirca *et al.*'s (2005) meta-analysis concluded that two national culture dimensions (uncertainty avoidance and power distance) affect the market orientation-performance relationship. In summary, relatively few cross-country studies have been conducted in strategic marketing, which is why country-specificity on performance consequences of strategic orientations and market-based capabilities warrants additional research.

1.6.2 Internal moderators

The moderating role of internal-to-firm contexts have been studied to a considerably lesser extent than that of external contexts. Nevertheless, scholarly interest in this regard is increasing as evidenced by recent studies (e.g., Slater, Olson and Hult 2006; Song *et al.* 2007; Menguc and Auh 2009; Ramaswami *et al.* 2009) in the field of strategic marketing. For example, Ramaswami *et al.* (2009) found differences in financial performance implications of market-based capabilities between small and large, and between younger and older firms. Following Homburg *et al.* (1999), Menguc and Auh (2009) studied whether two institutional factors (CEO functional background and politics in marketing-related decisions) strengthened or weakened the performance effect of market orientation. Their findings lend support for the notion that market orientation has a stronger positive effect on performance in firms with marketing CEOs and in the presence of increased politics. This is, potentially, because marketing CEOs possess an excellent means to deploy and implement this resource effectively to generate enhanced firm performance (ibid.). Slater *et al.* (2006) and Song *et al.* (2007), in turn, demonstrated that a firm's strategic type (Walker and Ruekert 1987; Miles and Snow 1978) moderates performance implications of strategy formation, technology, and market-linking capabilities, whereas Pelham (1999) supported these ideas in the context of market orientation. In sum, findings suggest that managers would need to consider a firm's strategic type when allocating and developing organizational capabilities and strategic orientations.

Moreover, a firm's strategic orientations can be regarded as contextual factors (e.g., Deshpandé and Webster 1989; Oliver 1997) that strengthen market-based capabilities and their performance effects, or vice versa (cf. Day 1994). For example, when capabilities are incompatible with the business's cultural norms, they are less likely to contribute to performance (Menguc and Auh 2009). However, it appears that cultural mechanisms have been largely neglected in prior research. One notable exception, while market orientation has predominantly been considered an antecedent to performance, Matear *et al.* (2002) examined its moderating effect in the new service development-performance relationship. They concluded that, contrary to what was expected (Kandampully and Duddy 1999; Lukas and Ferrell 2000; Gatignon and Xuereb 1997), strong market orientation does not enhance the contribution of innovation to performance, even though market-oriented companies are better able to anticipate new customer preferences and be constantly aware of

competitors' actions. Prior research also suggests that innovative culture should facilitate knowledge acquisition, which is likely to further drive organizational capabilities for improved organizational performance (Knight *et al.* 2004). Further, appropriate culture is required to complement human capital management capabilities if a firm wants to enjoy sustainable performance superiority (Chan, Shaffer and Snape 2004). Some moderating effects that strategic orientations might have in the capability-performance relationship were also considered above, in section "Synergistic performance relationships."

I am not aware of studies that would consider moderating effects of both external and internal contexts in the strategic marketing-performance relationship.

1.7 Framework for the Study

Four firm-level concepts are central to this dissertation: (1) strategic orientations, (2) market-based capabilities, (3) business performance, and (4) business context. For the sake of clarity, business context is considered only as a moderating factor although it might also influence strategic orientations and market-based capabilities that firms place particular emphasis and development efforts (Varadarajan and Jayachandran 1999). Additionally, although the orientation-capability interface is by no means unequivocal (e.g., Collis 1994; Zhou *et al.* 2005; Hooley *et al.* 2005; Foley and Fahy 2009), this study distinguishes these two concepts. Business context refers to an external business context of an organization (such as national business context, environmental turbulence, and market type) in Essays I – III. Conversely, in Essay IV, business context also refers to an internal context; a firm's organizational culture that its strategic orientations represent. Thus, strategic orientations play a dual role as performance antecedents and as contextual characteristics. Moreover, business performance refers to a combination of market and financial performance of a firm (cf. Hooley *et al.* 2005). Figure 2 presents an illustration of the general framework for this study. In the empirical essays, the general framework is broken down into more detail.

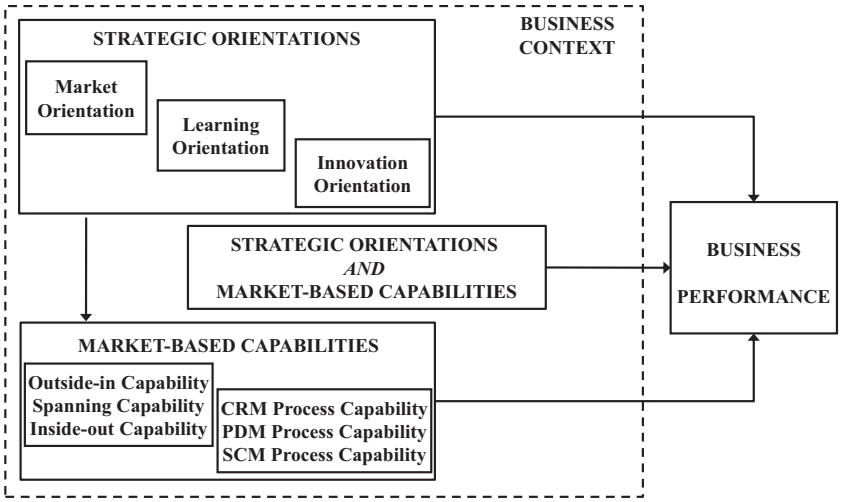

Figure 2 General framework for the study (the dotted line refers to business context potentially affecting the performance outcomes of strategic orientations and/or market-based capabilities)

The framework in Figure 2 is drawn from extant literature in strategic marketing. Firstly, a wide array of studies demonstrated both conceptually and empirically that strategic orientations (Kirca *et al.* 2005; Simpson *et al.* 2006; Baker and Sinkula 1999b) and market-based capabilities (Day 1994; Hooley *et al.* 2005; Ramaswami *et al.* 2009) are positively associated with business performance. Secondly, a number of prior studies (e.g., Slater and Narver 1994b; Hurley and Hult 1998; Hult *et al.* 2005; Langerak *et al.* 2007) have proposed that market-based capabilities provide intervening mechanisms for firms to unpack the potential value of their strategic orientations and, consequently, lead to superior business performance.

Thirdly, potential complementarities between different strategic orientations (e.g., Baker and Sinkula 1999b; Menguc and Auh 2006), different market-based capabilities (e.g., Moorman and Slotegraaf 1999; Song *et al.* 2005), and strategic orientations (Morgan *et al.* 2009) have attracted increasing scholarly interest and synergistic performance implications have been empirically revealed. Extending the debate, I focus on the interplay between strategic orientation and market-based capabilities. Fourthly, in regard to the potential performance contingency of a business context, previous research – while inconclusive – has found significant country (e.g., Theoharakis and Hooley 2008), turbulence (e.g., Song *et al.* 2005), and industry-specific differences (e.g., Short *et al.* 2007) that are identifiable between industrial and consumer

business firms (e.g., Ramaswami *et al.* 2009). Building on these findings, the present dissertation continues Profit Impact of Market Strategies (PIMS) studies (Buzzell and Gale 1987) in its attempt to reveal the mystery, mechanisms, and contingencies of business performance from a strategic perspective.

1.8 Research Objectives and Scope of the Dissertation

The present dissertation aims to contribute to existing literature on strategic marketing by providing extensive empirical evidence into the mechanisms, potential synergies, and external and internal contingencies with regard to business performance implications of strategic orientations and market-based capabilities. In doing so, it will contribute to the ongoing discussion in and around market orientation and, in particular, whether and how market orientation influences firm performance. Moreover, market-based organizational capabilities (Day 1994; Ramaswami *et al.* 2009) are used to explain the 'black box' of performance implications of market orientation and other strategic orientations. In addition to the intervening mechanisms, I examine the interplay and potential synergies between strategic orientations and market-based capabilities. Finally, a central aim of this study is to contribute to contingency-related literature in strategic marketing, which is why strong empirical emphasis is placed on potential – external and internal – contextualities of strategic marketing performance outcomes. As such, the findings of the present dissertation are relevant for both academic and managerial audiences.

For these purposes, the following research problem is addressed:

How do different strategic orientations and market-based capabilities contribute to companies' business performance in different business contexts?

This research problem is divided into four specific research questions that are addressed in the empirical part (Part II) of this dissertation. The research questions, together with the corresponding objectives, are presented in the following.

Given that a number of prior studies (e.g., Ramaswami *et al.* 2009; Sirmon *et al.* 2007) have identified a need to examine the context-dependent nature of strategic marketing's performance implications, it forms a central theme for

the dissertation. Potential contingencies are approached from a variety of angles. First, the robustness of direct performance relationships of different strategic orientations and market-based capabilities are examined. As such, we investigate whether market orientation, innovation orientation, and marketing capabilities (outside-in and inside-out) contribute to firm performance similarly in different, country-specific settings. Three 'engineering-oriented' countries – Austria, Finland, and Germany – are considered. The first research question is:

1. To what extent do strategic orientations and market-based capabilities affect business performance in an 'engineering country' context and are the effects robust among the countries?

Second, acknowledging that the direct market orientation-performance relationship has been widely examined and the majority of these studies have found a positive relationship (e.g., Kirca *et al.* 2005), we adopt a different approach and address two types of fit. On the one hand, organizational capabilities in business processes (Ramaswami *et al.* 2009) are investigated as intervening (mediating) mechanisms between MO and business performance (cf. Ketchen *et al.* 2007). On the other hand, we examine the contextual moderation of environmental turbulence in capability-performance relationships. Thus, the second research question is:

2. What is the organizational mechanism through which market orientation translates into business performance under different levels of environmental turbulence?

Third, recent studies have suggested that market orientation complements certain organizational capabilities (Morgan *et al.* 2009) and strategic orientations (Menguc and Auh 2006). However, Newbert's (2007) meta-analysis concluded that only 3% of empirical RBV-performance studies have focused on the resource-capability interaction. To examine whether synergistic effects exist, I focus on innovation capability as a complement to market orientation. In doing so, my aim is to contribute to extant literature in several ways. Namely, this study follows the promising line of inquiry in resource-capability configurations and can overcome a majority of the shortcomings of prior studies (Morgan *et al.* 2009; Menguc and Auh 2006). I also investigate potential context-dependencies in performance relationships in more detail as different market dynamics and market contexts are considered in the analyses. Therefore, the third research question is:

3. What is the effect of the market orientation–innovation capability combination on financial performance at varying levels of market dynamism and in different market contexts?

Fourth, a configurational approach is used to examine sources of good financial performance in strategic marketing. Specifically, the objective is to examine the contingency value of two market-based capabilities, innovation capability (Lawson and Samson 2001) and customer-linking capability (Day 1994), under different organizational and business environments. We employ a configurational approach (Meyer *et al.* 1993; Fiss 2007) because moderation (interaction) perspective to contingency approach can only investigate a limited amount of constructs at a time. Additionally, to enable delving deeply into the contextuality of firm performance, it is necessary to take a systems perspective. As such, the fourth research question is:

4. Are performance outcomes of market-based capabilities and their interplay dependent on organizational and environmental contingencies and, if so, how?

The level of analysis in this dissertation is the strategic business unit. All the empirical studies use data from Finnish companies while Essay I also includes Austrian and German data. Moreover, the level of analytical specificity varies between individual studies. Essay II deals with product business companies only and Essay III examines differences between market contexts (B-to-C vs. B-to-B, and product firm vs. service firm), whereas the others consider all types of companies at the national level.

1.9 Ontological and Epistemological Perspectives

The way we think the world is (ontology) influences what we think can be known about it (epistemology), how we think it can be investigated (methodology and research techniques), and the types of theories we think can be constructed about it (Fleetwood 2005). Therefore, making reasonable decisions concerning the philosophy of science is vital. Particularly the importance of ontological choices should not be underestimated. Critical realism, originated by Bhaskar (1978), is argued to provide an appropriate philosophical foundation for this study. This perspective is in line with the role given to such key phenomena as market orientation, market-based capabilities

and business performance in my study and the research design in general. A brief elaboration is provided.

Realist ontology assumes that a mind-independent reality exists (Hunt 1994; Tsang and Kwan 1999; Wikgren 2005). Moreover, although realists give empirical observations a major role, they argue that the world cannot be reduced to observable objects and facts. As such, realist ontology is thing- rather than event-centered; things possess characteristics that have tendencies to interact in particular ways with other things (Potter and Lopez 2001; Pratten 2009). Therefore, a researcher has to extend his or her efforts on analyzing unobservable mechanisms and structures behind the observable aspects of phenomena. Among other things, this means that realists problematize research that does not distinguish correlation from causality (Mir and Watson 2001). Specifically, for them causality concerns the causal powers of objects or their relations (Tsang and Kwan 1999). To this end, absence of an observable event (or relationship) does not necessarily mean that the underlying mechanisms do not exist as the mechanisms could counterbalance one another.

Epistemologically, critical realism puts forth caution with respect to scientific knowledge. It suggests that genuine knowledge about the world will never be known with certainty and that all knowledge claims must be critically evaluated and tested to determine the extent to which they truly represent, correspond, or are in accord with the world (Hunt 1994). Compared to the positivistic view, critical realists – such as myself – aim to explain phenomena while understanding that identifying fully predictable patterns might be a non-achievable task (Alvesson and Sköldberg 2010; Potter and Lopez 2001; Tsang and Kwan 1999). This stems predominantly from the practical impossibility of constructing "closed systems" in the social sciences because social structures are complex and less enduring than are structures found in nature (Tsang and Kwan 1999).

To these ends, critical realism – which plays an important role in strategy research (Mir and Watson 2001) – essentially posits that knowledge of the real world is always only approximate and provisional (Ackroyd 2010). Because the world cannot be reduced to observable objects and facts, critical realists place effort on analyzing unobservable mechanisms and structures behind the observable aspects of phenomena (Alvesson and Sköldberg 2010; Ackroyd 2010). Additionally, unlike positivists, critical realists are interested in context-dependencies that lead to the linkages between observed phenomena (Mir and Watson 2001; Easton 2002). Ackroyd (2010), for instance, proposed that

critical realists can induce theory by identifying conditions for the existence of a distinctive causal process.

Building on ideas put forward by critical realism, the present study considers causality as contextual and emergent tendencies. In doing so, its theoretical foundations are the RBV of the firm and contingency theory; the adoption of a contingency perspective to complement the theoretical insights of the RBV is essential because of its internal focus. Instead of examining whether the resources and capabilities under study, universally, improve performance, I argue that – from both a theoretical and managerial perspective – it is more beneficial to address when, where, and how resources and capabilities are valuable. Without appropriate conditions, the causal powers of these constructs might remain unrealized and the pattern of events unobservable (Harré and Madden 1975). In particular, enabling conditions ensure that the construct is of the right nature and in the right state for the exercise of a certain power (ibid.).

In the course of searching for underlying mechanisms that lead to superior business performance, the present study examines the interplay between strategic orientations and market-based capabilities provided within different business contexts. Three types of fit (moderation, mediation and configurational) are examined; I argue that considering different fit types is important because prior literature reports encouraging findings that go beyond traditional antecedent-consequence logic. Furthermore, I believe that a scholar adopting a strict position of orientations being antecedents to capabilities reflects a strong – and not necessarily conscious – methodological focus. Importantly, the present study acknowledges the holistic nature of organizational phenomena, which is also in line with arguments made by critical realists.

1.10 Research Methodology

The present dissertation can be divided into two methodologically distinct parts. Theoretical development played a main role in the introductory part (Part I), whereas an empirical approach is used in the four essays in Part II. In the theoretical part, an extensive literature review from the fields of marketing and strategic management was conducted. The empirical part of the study provides most of its contribution; however, theoretical development plays a vital role in providing the necessary *a priori* background knowledge and

theoretically-relevant framework for the empirical parts of the study. As such, the parts are closely interrelated. In the following, brief descriptions of the two data sets used in the study are provided, after which a short introduction to the methodological decisions and quantitative techniques employed is given.

1.10.1 Research Data

In this dissertation, two extensive data sets are used. The first, international "Marketing in the 21st Century" data are used in Essay I to investigate potential country-specific differences in performance implications of strategic marketing. Additionally, Finnish data from "The State of Marketing 2010" are used in Essays II, III, and IV. The two data sets and information on they were collected are briefly described in the following; some points of departure for the four empirical essays in Part II are also provided.

Marketing in the 21st Century

The "Marketing in the 21st Century" (MC21) data were gathered using a mailed questionnaire, which surveys small, medium, and large firms of business and consumer products and services. The data collection was coordinated by Aston Business School in the UK. The sampling frame was supplied by national research institutes and sampling was undertaken based on quotas for firm size, industry, and market type. The full data set included 5,627 companies in 13 countries worldwide: Australia, Austria, China (mainland), Finland, Germany, Greece, Hong Kong, Hungary, Ireland, the Netherlands, New Zealand, Slovenia, and the United Kingdom. For the purposes of this study, data from three countries – Austria, Finland, and Germany – were analyzed. In these countries, the data collection – resulting in 249, 327, and 400 usable responses, respectively – was conducted between 2002 and 2003. Of note, this corresponds to a response rate of greater than 20% in each of the countries.

While detailed descriptives are available in Essay I, firms in business-to-business markets account for 57.9 percent of the sample. Regarding the diverse range of themes in the survey instrument, strategic orientations, marketing assets and capabilities, marketing activities, characteristics of the business environment, and company performance were included. To operationalize the concepts of the study, several multi-item scales were used. The majority of

indicators were measured on subjective five or seven-point Likert scales that are related to a company's primary competitors. Additionally, while the measurement items in the questionnaire are ordinal in nature, they are treated as continuous. This is common practice and justified because having at least five ordered categories and using the maximum likelihood method does not result in severe levels of bias regarding fit indices, parameter estimates, and standard errors (Finney and DiStefano 2006). The MC21 questionnaire is presented in Appendix A.

The State of Marketing 2010

The "State of Marketing 2010" (SM10) is a recent dataset that was gathered using an online survey instrument during the spring of 2010. Respondents were recruited via e-mail invitation. Similar to the MC21, this data set is comprehensive as it is administered to address the current state of marketing in Finnish companies. The sampling frame was provided by a commercial provider (MicroMedia) and the questionnaire was targeted at all Finnish strategic business units (SBUs) with more than five employees. Services and goods providers from both business-to-consumer and business-to-business sectors were included. Members of top management were used as key informants because of their knowledge of the firm, its marketing resources, capabilities and orientations, and the business environment in which they operate. The number of responses acquired from different SBUs was 1,134, with a total response rate of 10.9%. The most frequent respondent title was CEO (38%). Considering the high positions of respondents, online survey format, and considerable breadth and depth of the questionnaire, the response rate was considered satisfactory. The "State of Marketing 2010" survey instrument, translated into English, is presented in Appendix B.

1.10.2 Analytical Techniques Employed

The empirical part of the study includes confirmatory and exploratory studies. Specifically, Essays I, II, and III use confirmatory research designs, whereas Essay IV is exploratory in nature. In the first three essays, the combination of confirmatory factor analysis (CFA) and structural equation modeling (SEM) is employed. Moreover, multiple-group SEM was used in Essay I, while Essays II and III rest on single-group SEM analysis. Although critical realism does not

clearly favor any particular research methodology, these methods enabled the researcher to account for unobserved (i.e., latent) mechanisms. Thus, these techniques are well aligned with the ontology of critical realism and acknowledge the importance of underlying mechanisms. Finally, in Essay IV, we combine CFA with fuzzy-set qualitative comparative analysis (fsQCA) and demonstrate the superiority of the chosen methodology over the traditional methods with multiple regression analysis.

Structural Equation Modeling

Structural equation modeling (SEM) is a popular advanced statistical technique in marketing (Steenkamp and Baumgartner 2000) and enables academicians to analyze the relationships between latent variables that cannot be measured directly (Jaccard and Wan 1996). This is particularly valuable in marketing and strategic management as these fields include many constructs (e.g., market orientation, strategy, performance) that cannot be directly observed because of their many facets (Steenkamp and Baumgartner 2000; Shook *et al.* 2004). Rather, these constructs can only be measured through multiple indicators, as no single indicator can capture their full theoretical meaning. This is also the case in the individual essays of the present dissertation. Additionally, given that I focus on theory testing and essentially all of the constructs under study are established and empirically validated by prior studies, CFA (not exploratory factor analysis) and SEM are justifiable choices for the analysis (Steenkamp and Baumgartner 2000).

Further support for using SEM is provided as it accounts for measurement error using multiple indicators for latent constructs and making a clear distinction between unobserved theoretical constructs and empirical measures (Steenkamp and Baumgartner 2000). SEM is a rather sophisticated covariance-based technique that consists of a set of linear equations that simultaneously test two or more relationships among latent variables (Jaccard and Wan 1996; Byrne 1998; Shook *et al.* 2004). Compared to other modeling techniques, SEM is more focused on explaining marketing phenomena than on predicting specific outcome variables (Steenkamp and Baumgartner 2000). In comparison to multiple regression analysis, SEM has a unique ability to perform a series of simultaneous analyses (Shook *et al.* 2004). Finally, SEM can be used in both cross-sectional and longitudinal research settings, in comparing relationships between constructs across different groups (e.g., market segments, countries), and in specifying interaction and indirect effects

of independent constructs on dependent constructs (Steenkamp and Baumgartner 2000; Kline 2005).

While SEM clearly has advantages over most statistical methods, even it cannot serve as a substitute for poor measures or data. Therefore, before the SEM analysis, it is common to conduct a confirmatory factor analysis (CFA) to investigate how well multiple indicators capture the construct of interest (Steenkamp and Baumgartner 2000). Within CFA, observed variables can only load on a certain factor and, thus, not all associations between factors are analyzed. In this case, it would be viewed as a structural model of presumed causal effects of latent variables on observed scores (Byrne 1998; Kline 2005). In terms of research data for SEM analysis, a number of 'criteria' are suggested: linearity of relationships, completeness of data, multivariate normality, and adequate sample size (Marcoulides, Chin, and Saunders 2009). In this study, these criteria are met in all individual studies. Reliability and validity are discussed in more detail in Section 1.10.3.

The central question in CFA (and in SEM) is whether the measurement (or structural) model is supported by the data, which can be interpreted from several goodness-of-fit indicators. In the CFA analysis, the general purpose is to maintain the nature and character of the original variables while reducing their number (Hair *et al.* 2011). Studies follow a guiding rule of thumb; the cases-per-variable ratio should be more than five to ensure sufficient statistical precision of the results (Kline 2005). This is necessary to avoid over-fitting the data and deriving factors that are barely generalizable outside of the sample. Nevertheless, within a standard CFA model with two or more factors, at least three indicators per factor is recommended because of possible estimation problems and to reduce the effect of measurement error on an individual indicator (Kline 2005; Jaccard and Wan 1996). In certain cases, only two indicators per factor are deemed to represent the construct sufficiently.

Multi-group analysis allows many useful extensions for a basic SEM framework. In general, multi-group SEM analysis focuses on similarities and differences in structural parameters and indicates differences in relationships of interest between groups. Nevertheless, the research must ensure that one group's error terms do not dominate those of the other group. In this study (Essay I), two groups are compared consecutively. The analysis is as follows (Hair *et al.* 2011). First, loose cross-validation is established by separately applying CFA to the same measurement model in both groups. Second, a test of factor structure equivalence is examined by estimating the measurement model simultaneously in each group. Resulting fit indices reveal the level of similarity

in covariance matrixes and factor structures between groups. Third, a test of factor loading equivalence is performed by constraining the loadings to be equal and then examining the completely free model and investigating the difference between these multi-group models using the Chi-square statistic and degrees of freedom. Whether regression coefficients in the empirical model are statistically invariant between groups (i.e., countries) is also being investigated. This analysis is performed by running three two-group models where the regression coefficients are forced invariant across groups.

Fuzzy-set Qualitative Comparative Analysis

Fuzzy-set qualitative comparative analysis (fsQCA) is – relative to most popular and established methods (e.g., interaction effects, clustering algorithms, and the deviation score approach (Fiss 2007; Short, Payne and Ketchen 2008)) – a new approach to study organizational configurations in management disciplines (Fiss 2010). This approach has gained some prominence in strategic management (e.g., Fiss 2011; Kogut, MacDuffie and Ragin 2004) and organizational theory (e.g., Greckhamer 2011) fields; however, is novel in the marketing context. This approach is used in Essay IV because, compared to interaction effects, fsQCA allows an examination of more complex models. Moreover, compared to cluster analysis, fsQCA is able to establish whether an individual element contributes to a configuration and how a particular combination creates a certain outcome (Miller 1996; Fiss 2007). Finally, compared to the deviation score approach, fsQCA is able to delve into the 'black box' of configurations and determine which element of the misfit from the ideal profile causes the outcome (e.g., Doty, Glick and Huber 1993). This also enables the investigation of equifinality, which refers to a situation where "a system can reach the same final state, from different initial conditions and by a variety of different paths" (Katz and Kahn 1978, 30).

The fsQCA procedure involves describing cases (e.g., firms or SBUs) as configurations using a set-theoretical approach (for details, see Fiss 2007). The outcome is a set to which each case either belongs or does not. Further, this set refers to a group of firms with good financial performance. However, we do not treat our outcome (i.e., financial performance) as a dichotomous variable; rather, the membership of each firm in the group of good performers is allowed to vary between full and zero membership (Ragin 2000). Similarly, each firm is characterized by its degree of membership in each configuration; that is, in the

sets of logically possible combinations of capabilities, culture and turbulence. In the next phase, the analysis determines which configurations consistently lead to the specified outcome. Finally, the logical expressions that describe the configurations are simplified based on redundancy (e.g., if A * B * C → X and A * B * ~C → X, then A * B → X; where " * " refers to logical and " ~ " denotes logical not) (Ragin 2008).

The inference of causality in fsQCA is based on the notions of sufficiency and necessity, which derive from set theory (Ragin 2000, 2008). Consistency is an index that reflects whether a configuration systematically leads to the outcome of interest in the data. In other words, consistency describes whether the combination of explanatory variables is sufficient to cause the outcome. A consistency of .75 is usually considered a threshold for a good model fit (Ragin 2008). The coverage index, in turn, indicates the degree to which the configuration is necessary for an outcome to occur. These indices are analogous to a test of statistical significance and explanatory power in a regression model.

1.10.3 Reliability and Validity

Concerning the reliability and validity of this study, generalizability of the findings into a larger population is a critical concern. While this concern is addressed in more detail in each study, the data sets used in this dissertation are extensive with regard to sample size, the smallest sample analyzed includes responses from 249 SBUs and the largest is well over 1,000 SBUs. Moreover, quota sampling – in terms of firm size, industry, and market type – was used for the MC21 data, whereas the high number of respondents (from SBUs of more than five employees) in the "State of Marketing 2010" data assures that different firm types and sizes are represented in the data. Using a sample of firms in which different industries are represented, the general value of focal resources and capabilities can be appropriately tested and generalized (Armstrong and Shimizu 2007).

It is also found that non-response bias is not likely a problem in the empirical studies in this dissertation (Armstrong and Overton 1977). Consequently, generalizability to all companies (except in Essay II to all product business companies) in the corresponding country is argued. Nevertheless, to avoid aggregation bias and resulting validity problems (Grewal *et al.* 2011), we account for internal and external contexts that may potentially affect the underlying relationship between different groups of firms within the sample. When independent and dependent variables are measured in the same

questionnaire, common method variance can also be problematic (Podsakoff and Organ 1986). However, using Harman's one-factor test, no indication of common method variance was identified.

Furthermore, before any conclusions are derived from a model, the degree to which it agrees with the data needs to be ascertained (Steenkamp and Baumgartner 2000). In this regard, we assure – using several goodness-of-fit indicators, such as root mean square error of approximation (RMSEA), goodness-of-fit index (GFI), and comparative fit index – that the general model fit in CFA and SEM is adequate (acceptable levels of fit from Jaccard and Wan 1996; Diamantopoulos and Siguaw 2000). Chi-square tests are also reported. Of note, Chi-square tests are only recommended for moderate samples and may result in incorrect conclusions with large samples, as found in our study (Shook *et al.* 2004). Moreover, at the factor level, a general threshold of 0.6 is set for loadings to imply that an indicator satisfactorily reflects the latent variable (Hair *et al.* 2011). Fornell and Larcker's (1981) procedure was used to assure that correlations between factors were not excessively high. While factor loadings and adequately low correlations between factors provide initial support for convergent and discriminant validity, respectively, more formal procedures were also applied to test validity.

In this study, composite reliability (CR) and average variance extracted (AVE) indexes are used to capture the convergent and discriminant validity of latent variables. CR is chosen because scholars have suggested its superior index over the alpha coefficient, which wrongly assumes that all measurement items contribute equally to reliability (Shook *et al.* 2004; Bollen 1989). CR also draws on standardized loadings and measurement error for each item, whereas AVE shows directly the amount of variance captured by the construct in relation to the amount of variance due to measurement error (Diamantopoulos and Siguaw 2000). Using AVE, Fornell and Larcker's (1981) procedure verifies discriminant validity. An alternative approach is taken in Essay I where discriminant validity of the constructs is tested with exploratory factor analysis. The CR and AVE indexes are calculated from the following equations, where λ refers to indicator loadings, θ refers to indicator error variances, and $\sum$ refers to summation over indicators of the latent variable (Diamantopoulos and Siguaw 2000):

$$CR = \frac{\left(\sum \lambda\right)^2}{\left(\sum \lambda\right)^2 + \sum(\theta)} \qquad AVE = \frac{\left(\sum \lambda\right)^2}{\sum \lambda^2 + \sum(\theta)}$$

The data sets in this study are cross-sectional, which has traditionally been considered a limitation in empirical studies. However, contingency frameworks, more or less, ignore the processes by which a given outcome is achieved and view the relationships among variables at one point in time (Zeithaml *et al.* 1988). As such, contingency models are essentially static, rather than dynamic. This is why using cross-sectional data is appropriate in this dissertation. Additionally, most empirical studies in strategic marketing involve cross-sectional design, which can be considered justified as long as strong theoretical underpinnings are provided and causality inferences can be drawn (Shook *et al.* 2004).

1.11 Outline of the Dissertation

This dissertation is divided into two parts. In this first part, an overview of the research was presented. This included an introduction to the research area of main interest, problem setting, and objective development of the study, and methodological choices in the dissertation. The first part also provided a synthesis of major findings of the study, presented its main contributions to the field of study, and reported limitations of the study and potential avenues for further research. The second part consists of four empirical and complementary essays. Each essay addresses specific questions in terms of contingencies in the effect of strategic marketing on business performance. In aggregate, the four essays allow the researcher to answer the research problem posed in this dissertation. Figure 3 depicts how the four essays (E1, E2, E3, and E4) contribute to the whole of this dissertation.

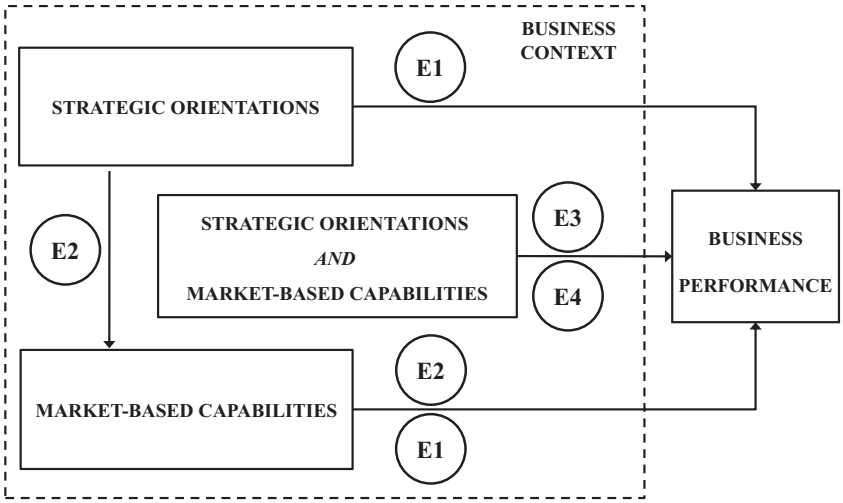

Figure 3 Empirical essays in the dissertation

In Essay I, the direct performance effects of two strategic orientations (market orientation and innovation orientation) and two market-based capabilities (outside-in and inside-out capabilities) are studied in the context of three European countries with considerably homogenous business environments. As a contingency element, performance effects in different countries are compared. This provides the first critical test for the robustness of performance implications of strategic orientations and market-based capabilities.

Essay II examines the mechanisms through which market orientation translates into business performance. Accordingly, three business process capabilities (product development management, customer relationship management, supply chain management; see Srivastava *et al.* 1999) are analyzed as potential mediators in the market orientation–performance relationship. Contingency perspective is included in the analysis as to investigate whether environmental turbulence strengthens or weakens the mediating role of process capabilities.

Essay III turns the focus from direct and mediated effects to synergistic effects in strategic marketing. In doing so, the interaction approach is adopted. The potentially complementary nature of two central concepts, market orientation and innovation capability, is addressed. This study provides two types of contingency approaches. First, it examines whether and how market turbulence and competitive intensity affect performance effects of market orientation and innovation capability. Second, two group comparisons, in

accordance with differences in market focus (business-to-business vs. business-to-consumer and product vs. service providers), are conducted.

Essay IV takes a configurational approach as it examines the contingency value of market-based capabilities (i.e., innovation capability and customer-linking capability) in explaining financial performance. The essay offers a comprehensive analysis of contextuality. Specifically, both organizational (market-oriented learning culture; internal-to-firm) and business environmental (environmental turbulence; external-to-firm) characteristics are considered to determine contingencies that affect performance outcomes of market-based capabilities and their interplay.

2. REVIEW OF THE RESULTS

In this section, the main results of the four empirical papers included in this dissertation are reviewed. Particular emphasis is placed on how the papers address specific research questions and contribute to extant literature in strategic marketing.

2.1 Strategic marketing and business performance: A study in three European 'engineering countries'

This essay addresses the first research question of this dissertation: "How do strategic orientations and market-based capabilities affect competitive advantage and business performance in an 'engineering country' context and are the effects robust among countries?" The essay examines the performance effects of strategic orientations and market-based organizational capabilities in light of a contingency approach. More specifically, it investigates whether performance implications are country-specific or robust in the context of three European engineering countries: Austria, Finland, and Germany. In doing so, the paper responds to calls for cross-national research in strategic marketing (Cadogan, Diamantopoulos and Siguaw 2002) and the application of a contingency approach to further study performance implications of strategic orientations (Noble *et al.* 2002) and market-based capabilities (Krasnikov and Jayachandran 2008).

Building on the resource-based view of the firm, the paper focuses on two strategic orientations (market orientation and innovation orientation) and two marketing capabilities (outside-in and inside-out). However, because focus is placed on potential cross-country contingencies, only direct relationships of these strategic marketing concepts to the company's success are considered. Country-specificity is considered a moderating variable in a series of sub-

sample analyses between the three countries. The paper's general framework is presented in Figure 4.

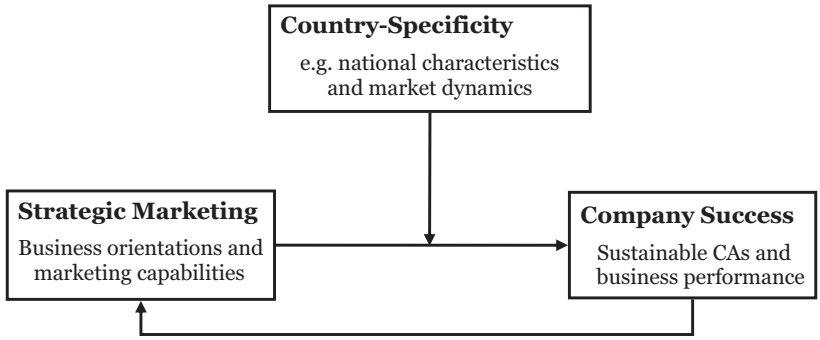

Figure 4 Strategic marketing, business performance and country-specificity

The analysis shows surprisingly weak performance relationships for market orientation and customer-focused outside-in capabilities. Conversely, performance implications of innovation orientation and operational inside-out capabilities, in particular, are strong. Interestingly, the role of inside-out capabilities is considerably more important than that of outside-in capabilities. This indicates that customers and market characteristics remain inadequately addressed in engineering countries and that these hold potential for increased firm performance. The highlighted importance of inside-out capabilities in affecting superior business performance is identified in each of the countries. The essay argues that this result could be understood through the engineering country context in which firms are inclined to favor technological innovations and operational efficiencies over marketing and customer perspectives.

Notably, the paper reports several statistically significant differences in performance effects between countries. Country-specificity is a major finding that challenges the widely assumed generality of the strategic marketing-performance relationship. Moreover, the total effect of strategic marketing on a firm's financial performance is sensitive to countries under study; the strongest found is Germany and the weakest is Finland. The findings suggest that each of the countries offer distinct opportunities for benchmarking purposes within the engineering country context.

The primary contribution of this paper rests in providing empirical evidence in cross-national differences in performance effects of strategic marketing. The findings are especially valuable as the countries compared in the analyses are

significantly similar in business cultural heritage and business policies and, therefore, provide a setting to test the generality versus context- specificity in performance antecedents critically. The paper also offers an account of which strategic marketing concepts contribute more and less to superior business performance in an engineering country setting.

2.2 Translating market orientation to superior business performance: The mediating role of core business process capabilities

This essay addresses the second research question: "What is the organizational mechanism through which market orientation translates into business performance under different levels of environmental turbulence?" Following recent calls to investigate the intervening mechanisms between market orientation and business performance (e.g., Ketchen *et al.* 2007), this paper examines organizational capabilities of core business processes (customer relationship management, CRM; product development management, PDM and supply chain management, SCM) as such translating mechanisms. Considering these three business process capabilities simultaneously enables a demonstration of their relative roles in realizing the potential value of market orientation. Moreover, this paper examines the contextual moderation of environmental turbulence in the process capability-business performance relationships. To improve the internal validity of the findings, the study focuses on product business companies only. The framework for the study is illustrated in Figure 5.

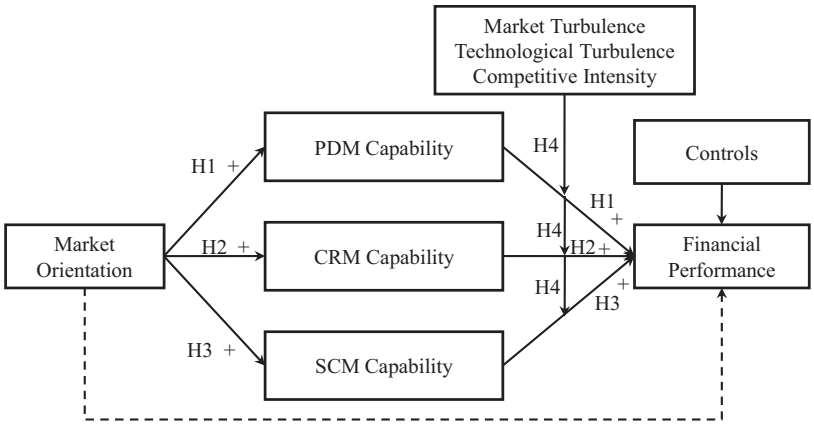

Figure 5 Market orientation-business process capabilities-business performance relationships (the dotted line represents a direct effect that may be mediated)

The findings suggest that the business process capabilities – in aggregate – fully mediate the performance effects of market orientation. In particular, process capabilities in PDM and CRM play a central role in realizing potential value, whereas the mediating role of SCM process capability is statistically insignificant. In other words, the analysis suggests that market orientation improves business performance through the enhancement of these capabilities. As such, PDM and CRM capabilities that contribute significantly to customer value creation can be regarded as 'success-producing' capabilities, whereas high SCM capability, which ensures competitive operational efficiency, might serve as a 'failure-prevention' capability (Varadarajan 1985). This empirical essay corroborates the role of market orientation as a deeply embedded, cultural phenomenon that can be considered a dynamic capability that facilitates guidance and development of organizational capabilities.

Based on the moderated mediation analysis, it is also found that levels of market turbulence and technological turbulence significantly moderate roles of core business process capabilities when applied as mediators. In particular, the more turbulent the market, the better (or worse) a firm with strong (or weak) PDM process capabilities tends to perform. Additionally, strong SCM process capability can result in business performance improvements only in business contexts where technological changes occur rapidly. Finally, with regard to the performance implications of CRM process capability, the findings imply that both market turbulence and technological turbulence diminish performance implications of the capability and related costs may even exceed the benefits. Taken together, the findings of the essay further validate the postulate that no strategy is universally superior (cf. Venkatraman 1989) and emphasize the contextuality of 'success recipes' in today's dynamic business environment.

The study makes three primary contributions. First, it contributes to enhanced understanding of how MO affects firm performance by considering business process capabilities as potential mediators in this relationship. Second, it discusses and empirically examines the relative roles of CRM, PDM, and SCM capabilities in realizing the potential value of market orientation. Third, it complements and extends several recent studies (Ramaswami *et al.* 2009; Krasnikov and Jayachandran 2008) in considering the external moderation of environmental turbulence on the effects of strategic marketing on business performance. In conclusion, it seems that performance outcomes are dependent on the alignment between organizational process capabilities

and external environmental conditions. The value-added from the last contribution is evident from considerably higher explanatory power of business performance with the moderated mediation model than with the general mediated model.

2.3 Market-driven Innovation Capability and Financial Performance: Moderating Effects of the Business Context

This essay addresses the third research question of the dissertation: "What is the effect of market orientation–innovation capability combination on financial performance in varying levels of market dynamics and in different market contexts?" Rather than focusing on direct effects or mediated models, this essay examines synergistic effects between two central strategic marketing concepts. Such studies have received only scant scholarly attention. More specifically, building on Drucker (1954) and recent studies (e.g., Morgan *et al.* 2009; Menguc and Auh 2006) on the complementary role of market orientation, the potential interplay between market-oriented organizational culture and innovation capability are examined. The logic here is that the relationship between market orientation and innovation capability is intuitively synergistic and, therefore, should be investigated as such.

The paper also investigates potential context-dependencies in performance relationships in detailed. In particular, the analyses consider two external contexts – dimensions of environmental turbulence and market context – and how these affect performance contributions of market orientation, innovation capability, and the interaction between the two. The conceptual frame of reference is presented in Figure 6.

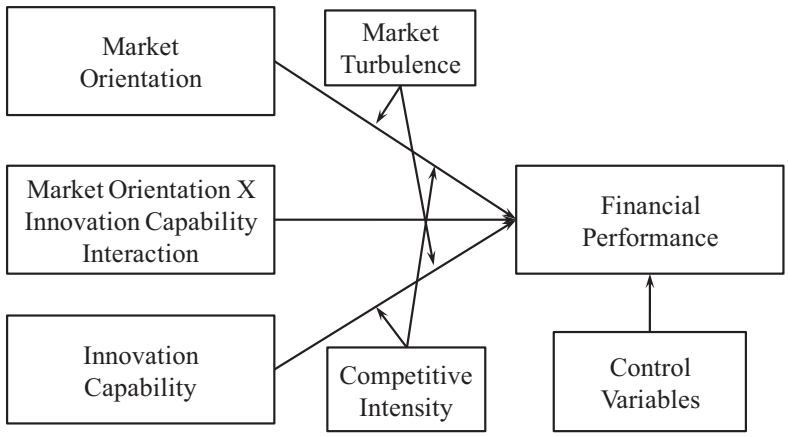

Figure 6 Market-driven innovation capability and financial performance

The analysis suggests that market orientation and innovation capability result in synergistic performance outcomes. In other words, these concepts appear to complement each other. Specifically, innovation capability provides a good means to capitalize firms' possession of market orientation by developing market-driven innovations, whereas market-oriented organizational culture supports the continuous development of innovation capability so that the firm's offerings are constantly in line with market needs. Moreover, findings suggest that innovation capability has a direct effect on financial performance; however, market orientation does not. Market orientation could be regarded as a moderator in the innovation capability-financial performance relationship. The results also support the view that organizational capabilities, such as innovation capability, can explain more performance differentials than firm resources, such as market-oriented culture (Newbert 2007).

Findings also offer strong evidence for the context-specificity of performance implications of market orientation and innovation capability concerning market turbulence and competitive intensity. Specifically, high market turbulence strengthens the market orientation–financial performance relationship to the point that it becomes statistically significant. A potential cause of this is because market-oriented organizational culture allows timely reactions to changes in the marketplace. Under intense competition, firms seem unable to gain full benefit from their market orientation and it might become an expense (cf. Kumar *et al.* 2011). In terms of innovation capability, the findings propose that rapidly changing customer needs, wants, and difficulties in predicting these changes lead firms to fail to meet the expectations of current customers or act too late and, therefore, miss good

business opportunities. On the other hand, innovation capability seems to be a particularly good means for differentiation and improved margins and, consequently, for superior performance outcomes, when competition is fierce. Moreover, the robustness of the above findings concerning a firm's market (B-to-B vs. B-to-C) and offering (product vs. service) type was tested. To summarize, performance effects examined (except for the innovation capability–performance relationship) are context-dependent with regard to market or offering type.

This paper makes two principal contributions. First, it supports a promising line of inquiry in resource-capability configurations in the context of strategic marketing. More specifically, it overcomes most shortcomings, such as a missing action component (e.g., Menguc and Auh 2006; Baker and Sinkula 1999b) or excessively generic frame for analysis (e.g., Vorhies and Morgan 2005), of prior studies that studied the interactions between market orientation and other strategic marketing concepts. In addition, managerially, the findings are valuable; for instance, organizations without the capacity to innovate may invest time and resources in studying markets; however, remain unable to translate this knowledge into practice. Second, the paper offers a comprehensive analysis of contextuality. In so doing, it focuses on a central issue, the match between environmental conditions and organizational capabilities and resources, which is lacking in most extant studies in strategic marketing. In light of the results of this essay, firms should adjust their marketing resources and capabilities to the market they operate.

2.4 The Contingency Value of Market-based Capabilities: A Configurational Approach

The final essay addresses the fourth research question: "Whether and how are performance outcomes of market-based capabilities and their interplay dependent on organizational and environmental contingencies?" Acknowledging that the performance implications of market-based capabilities are likely to involve more complex causal relationships than are two or three-way interactions, which most extant studies employ, a configurational approach is necessary to examine the sources of good financial performance in strategic marketing. More specifically, value and potential synergies between two market-based capabilities, innovation capability and customer-linking capability, are investigated under different organizational (i.e., market-based

learning culture) and environmental (i.e., market turbulence and competitive intensity) contingencies. Figure 7 illustrates the framework for this essay.

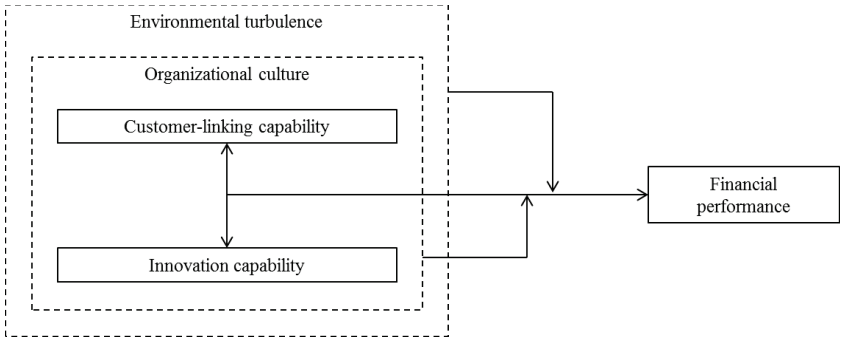

Figure 7 Financial performance outcomes of the market-based capabilities, organizational culture and environmental turbulence.

Fuzzy-set qualitative comparative analysis (fsQCA), which is a new approach to studying complex organizational configurations (Fiss 2011), is adopted. To understand the sensitivity of the high-performance configurations to contextual factors, the paper introduces a hierarchical approach to fsQCA. This approach allows investigation of whether findings remain consistent as additional contextual elements are introduced into the analysis and to test for potential aggregation bias (cf. Grewal *et al.* 2011).

Four parallel combinations associated with good financial performance are identified when both organizational and environmental contingencies are simultaneously considered. The resulting capability configurations are contextual in a number of ways (Porter and Siggelkow 2008). As indicated by one configuration, firms with strong innovation *and* customer-linking capabilities, *and* a strong market-based learning culture perform well, regardless of environmental turbulence. In contrast, another configuration is specific in terms of environmental turbulence, but not in terms of organizational culture. That is, irrespective of its level of market-based learning, firms with strong innovation *and* customer-linking capabilities perform well in an environment that is characterized by low market turbulence and high competitive intensity. Moreover, the two remaining configurations indicate that, under certain organizational and environmental conditions, firms with *only* strong innovation capability *or* strong customer-linking capability can perform well. However, in these configurations, a firm must adopt a market-based learning culture to support, or leverage, the capability. Importantly, results generally propose that customer-linking capability leads to

good performance when competitive intensity is high, whereas innovation capability and good performance go hand in hand under high market turbulence.

Subsequently, using linear regression analysis for testing the explanatory power of three rival approaches (i.e., direct effects, two-way interactions and configurations), we conclude that configurational analysis provides significant value added for empirical examination of complex causalities. That is, it appears that the causal mechanisms linking market-based capabilities to performance are complex, and non-reducible to direct effects and the two-way interactions identified by prior research.

The essay makes three primary contributions. First, it integrates the capability complementarity approach (Moorman and Slotegraaf 1999) and the contingency theory of capabilities (Morgan *et al.* 2009; Song *et al.* 2005). More specifically, the paper provides the first empirical analysis of complex interactions between market-based capabilities, organizational culture and environmental turbulence, and consequent financial performance implications. Second, addressing the resource-based view and its criticism of producing too context-insensitive prescriptions (Priem and Butler 2001), we find that performance outcomes of market-based capabilities and their interplay are contingent on both organizational and environmental factors. The study also extends complementarity research by identifying specific conditions under which particular organizational factors result in synergistic performance outcomes (Ennen and Richter 2010). Third, adoption of the fsQCA methodology enabled overcoming the limitations of linear methodologies and going into more detail in terms of different capability combinations and their contextuality than traditionally used linear methodologies would have allowed (Fiss 2007). Importantly, this method shows that significant value is added, over and beyond the direct and two-way interaction effects, in explaining good financial performance.

3. DISCUSSION AND CONCLUSIONS

In this section, the theoretical contributions and managerially relevant implications of this dissertation are discussed. Additionally, limitations of this study and potential areas for further research are proposed.

3.1 Theoretical Contributions of the Study

The present dissertation contributes to the strategic marketing literature in several ways. First, it applies a contingency approach to examine performance effects of strategic orientations and market-based capabilities. More specifically, a resource-based view of marketing that combines the RBV of the firm and contingency approach is chosen to guide the conceptual development and empirical examination. Consequently, we are able to provide more context-specific and relevant implications for research and managers than could a majority of extant empirical studies (Song *et al.* 2005) that responded to the criticism of the RBV being an overly static and internally focused approach (e.g., Brush and Artz 1999; Priem and Butler 2001; Sirmon *et al.* 2007). The findings of this study – in line with others (e.g., Emery and Trist 1965; and Venkatraman and Prescott 1990) – suggest that performance outcomes of strategic orientations and market-based capabilities are heavily context-dependent. Further, contingencies are identified in each empirical studies and findings indicate that country-specific settings (Essay I), dimensions of environmental turbulence (Essays II, III, and IV), market focus (Essay III), and organizational culture (Essay IV) moderate and, thus, challenge the widely assumed generality of the strategic marketing–performance relationship.

Second, different conceptual frameworks are empirically analyzed in investigating whether, and under what circumstances, strategic orientation,

and market-based capabilities contribute to firm performance. Four effect types, direct, mediated, moderated, and configurational effects, are considered. Frameworks and their empirical examination add value to prior literature as the versatility of our approach allows us testing a number of 'rival' models of business performance. In so doing, the dissertation is not limited to one specific perspective and, in aggregate, arguably provides a holistic view of performance antecedents and related performance mechanisms in strategic marketing. In particular, finding addresses *how* strategic orientations and market-based capabilities, and their interplay, affect business performance. This is where prior research is considerably scant. Specifically, the outcomes of this dissertation offer that the interplay between orientations, capabilities, and performance is complex and incompletely reducible to direct effects or even to two-way interactions.

Third, concerning individual streams of research, this dissertation contributes mostly to market orientation. Despite extensive efforts placed into studying the concepts of scale development and empirical modeling (van Raaij and Stoelhorst 2008), certain areas where only limited attention has been placed were identified. For instance, extant studies have not addressed through which business processes market orientation translates into superior performance; however, prior research (e.g., Slater and Narver 1994b) has proposed that the influences of market orientation are not limited to the marketing department. Building on Srivastava *et al.*'s (1999) theoretical proposition, this dissertation focuses on three 'core' business processes – CRM, PDM, and SCM – and empirically examines market orientation-business process capabilities-business performance path. By empirically investigating mediation of these capabilities, concurrently, the study contributes in two respects to the limited line of existing research on *how* market orientation affects business performance. Firstly, our analysis reveals whether market-based capabilities mediate market orientation-performance relationship and, secondly, findings indicate the *relative* intervening roles of these business process capabilities. In aggregate, full mediation is identified, while PDM capability and CRM capability are the strongest mediators.

The fourth contribution is also related to the role of market orientation (and other strategic orientations) in explaining business performance differentials. That is, most studies have treated market orientation as an antecedent to organizational capabilities or directly to business performance, whereas research considering market orientation as a moderator is scant (for notable exceptions, see Morgan *et al.* 2009; Menguc and Auh 2006; Baker and Sinkula

1999b). The present dissertation contributes to this literature and offers empirical evidence on the moderating performance effects of market orientation. To our surprise, only partial support for a direct positive link between market orientation and firm performance was achieved (Essays I and II). This, together with the findings from Essay III, supports the idea that market orientation is a moderator rather than a true antecedent. The results of this dissertation (Essay IV) also suggest that organizational culture, of which market-based learning is a critical part (Sinkula *et al.* 1997), originates from an internal context with a significant effect on the interplay and performance implications of market-based capabilities.

Fifth, related to the previous contribution, very limited attention has been paid in strategic marketing literature to resource complementarities, in general (Teece 2007; Crook *et al.* 2008; Dutta *et al.* 1999), and potentially synergistic resource-capability combinations, in particular (Newbert 2007). To address this evident research gap, a configurational approach (e.g., Meyer *et al.* 1993) is adopted and (in Essay IV) study *whether* and *how* market-based capabilities (i.e., customer-linking and innovation) and their constellations are related to good performance outcomes. Both internal (i.e., market-based learning culture) and external (i.e., market turbulence and competitive intensity) contingencies were examined simultaneously, which contributes to complementary studies (Ennen and Richter 2010). Enabling identification of complex performance relationships and overcoming most limitations of linear methods and other configurational approaches, we adopt a new methodology, fuzzy-set qualitative comparative analysis (fsQCA) (Fiss 2007) and introduce its hierarchical applications. Importantly, the analysis indicates that performance implications of market-based capabilities and their interplay are contingent on both organizational and environmental factors. A number of parallel configurations, associated with good financial performance, were identified and imply that several routes to superior performance.

3.2 Managerial Implications of the Study

This dissertation also contributes to managerial knowledge in several ways as it provides new insights into which strategic orientations and market-based capabilities companies should concentrate to improve effectiveness. First, for any strategy to be sustainable, it needs to be based on firm resources and organizational capabilities (cf. Wernerfelt 1984). Nevertheless, developing

distinctive capabilities binds financial and other resources and often involves trade-offs in terms of which capabilities a firm should develop (Weerawardena and O'Cass 2004). Findings in the Finnish or 'engineering country' setting revealed that firms were unable to benefit from 'customer-focused' outside-in capabilities, whereas their 'operational' inside-out capabilities were highly effective. Thus, practitioners should aim to improve the quality of their skills in identifying market dynamics and meeting the requirements of changing customer needs. In doing so, they could provide (more) value-added for customers. As such, this study argues that collaboration between marketing and R&D cannot be over-emphasized, and new products are more successful if based on both technology use and consumer information (e.g., Siguaw *et al.* 2006). The study also found limited support for complementarity between customer-linking and innovation capabilities, which further pinpoints this issue.

Second, this study offers managerially relevant evidence for *how* market orientation influences business performance. The findings suggest that market orientation is not a direct driver of firm performance; therefore, it can be deemed as 'cost of competing' (Kumar *et al.* 2011). However, this finding does not capture the whole truth, as our empirical studies indicate; market orientation is a necessary organizational resource for firms as they aim to fully enjoy the benefits of their capabilities. Specifically, some of its value lies in affecting the development and refinement of market-based capabilities, such as core business process capabilities. Thus, managers should acknowledge that the primary function of market orientation might be to act as an impetus that fuels the development of market-based capabilities (cf. Ketchen *et al.* 2007; Fahy and Smithee 1999).

The findings also propose that market orientation and market-based capabilities, such as innovation capabilities, result in synergistic performance outcomes so market orientation essentially strengthens the capability–performance relationship. This might stem from, among others, the role of high market orientation I improving the probability of a firm hitting the market with an innovation that satisfies customers' needs. The finding also emphasizes the importance of innovation capability and other market-based capabilities as means to capitalize on a firm's market orientation (cf. Morgan *et al.* 2009). For instance, organizations without the capacity to innovate may invest time and resources to study markets; however, remain unable to translate this knowledge into practice. Taken together, managers should realize that market orientation does not necessarily affect firm performance directly, rather,

influences the development of market-based capabilities or by facilitating employment of these capabilities.

Third, previous research concludes that managers must consider both internal and external contingencies when applying general research insights into a specific business context (Porter and Siggelkow 2008). The findings from these empirical studies indeed emphasize the substantial contextuality of 'success recipes' in today's dynamic business environment. Simultaneously, this dissertation provides more realism into the evaluation of performance effects and related mechanisms, which, I believe, are of considerable managerial interest.

For instance, the study shows that environmental turbulence significantly moderates the relationship between business process capabilities and business performance so appropriate alignment between these organizational capabilities and environmental conditions leads to superior performance (cf. Ramaswami *et al.* 2009; Krasnikov and Jayachandran 2008). Additionally, this study suggests that the importance of market-based capabilities varies according to the level of market-based learning and environmental dynamism. Moreover, we show that target market (B-to-B vs. B-to-C) and offer type (product vs. service) significantly affect financial performance outcomes of market orientation and innovation capability as well as the interaction between the two. Therefore, firms should adjust their marketing resources and capabilities to the market in which they operate. Finally, the findings also indicate that market-based capabilities should be adapted to fit a firm's organizational characteristics.

3.3 Limitations of the Study

This dissertation, as any scholarly study, must be evaluated and interpreted in light of its limitations. These limitations point to fruitful avenues for further research. First, the generalizability of results is of great scholarly and managerial interest. The data used in this dissertation is derived mainly from Finnish companies; Essay I (where Austrian and German data are used) was the exception. Because our data sets are representative in terms of the amount of respondents and different company types and sizes, one can argue that the findings are generalizable to all Finnish companies except the very smallest ones (one to five employees only). However, as indicated by the results in Essay I, any generalizations to other countries need to be made with caution.

Moreover, given several differences found between different market characteristics in Essay III and the context-specific results, caution should be taken when generalizing these findings to other market types. This holds true, even though meta-analytic findings suggest that the capability–performance relationship is indifferent between manufacturing and service firms and between U.S. and non-U.S. companies (Krasnikov and Jayachandran 2008), and that country-of-origin does not play a moderating role in the market orientation-performance relationship (Cano *et al.* 2004). Future research could establish the level of generalizability to other contexts.

Second, the data sets used in this study are cross-sectional; therefore, they do not fully capture the temporal order of causality or dynamics (Shook *et al.* 2004). Nevertheless, using cross-sectional data is somewhat 'common practice' in the strategic marketing field as only few empirical studies have used longitudinal research settings. Moreover, as argued earlier, contingency frameworks are static in viewing the relationships among variables at one point in time (Zeithaml *et al.* 1988), which is why using cross-sectional data suits rather well the purposes of this dissertation. Another data-related issue is the use of subjective performance indicators in the empirical analyses, which could raise critical concerns (cf. Kirca *et al.* 2005). Subjective performance measures acquired from the same questionnaire as performance antecedents could be problematic in two ways. First, they might be difficult for managers to evaluate, particularly compared to a firm's main competitors, which could lead to problematic common method bias. However, we tested for common method variance and found no evidence of its existence (Podsakoff and Organ 1986). Second, using members of top management as key informants in this dissertation could also be criticized as they might not possess the best information; for example, when it comes to more 'operational' issues, such as certain organizational capabilities. For most issues under study, nevertheless, top management should hold the best knowledge within the organizations surveyed (cf. McKenna 1991).

Third, although an attempt was made to include all relevant concepts in the research framework to investigate business performance effects of strategic orientations and market-based capabilities, one can always question whether important constructs were excluded. For instance, entrepreneurial orientation (Zeithaml and Zeithaml 1984), technological orientation (Gatignon and Xuereb 1997), and several marketing capabilities (pricing, marketing communication, selling, market information management, marketing planning, and marketing implementation) (Vorhies and Morgan 2005) could have been included in

different parts of this dissertation. Although some authors (e.g., Eisenhardt and Martin 2000; Danneels 2002) consider product development a dynamic capability, this dissertation focuses on capabilities with predominantly static, rather than dynamic, nature (cf. Teece *et al.* 1997). Furthermore, in Essay I, interrelations between different strategic marketing constructs are not examined. These issues raise a call to study performance effect of strategic marketing using even more comprehensive conceptual frameworks than those used in this dissertation.

Fourth, external characteristics, such as competitive environment, might influence the necessary focus or shape of different orientations or capabilities (Slater and Narver 1994a) that could also affect performance outcomes. However, this potential effect is neglected in the analyses of this study, whereas emphasis is placed on examining whether and how these affect performance implications of orientations and capabilities. Finally, considering strategic orientations as one-dimensional constructs (excluding Essay IV) and measuring them as aggregate, linear-additive functions may also be misleading given that extant research (e.g., Greenley 1995; Manu 1992) has found several different profiles.

3.4 Avenues for Further Research

I believe that this dissertation importantly contributes to the existing knowledge on *how* strategic orientations and market-based capabilities affect business performance. Nevertheless, several opportunities for future research can be proposed.

First, the present dissertation is one of the first studies in strategic marketing that offers a detailed and diverse analysis of contextuality in performance effects. Given its encouraging results, future studies should continue to investigate potential context-dependencies of organizational and external factors. In addition, a vast majority of empirical studies have only examined either external or internal business contexts in one study, which – as shown in Essay IV – might lead to misleading conclusions. Using both external (e.g., environmental turbulence and other market characteristics) and internal (e.g., organizational culture, firm age, size, and structure) contexts at the same study would improve the credibility of the findings. Such analyses would also respond to calls to empirically verify whether and in what way superior performance from strategic marketing is contingent on firm-specific or

business environmental factors (e.g., Priem and Butler 2001; Sirmon *et al.* 2007; Ramaswami *et al.* 2009). Future research could also replicate individual studies of this dissertation in other research settings to find additional evidence concerning the generalizability of these findings.

Second, from the data point of view, few strategic marketing studies (e.g., Kumar *et al.* 2011) have used longitudinal research settings in their attempts to reveal sources of superior firm performance. In this regard, this study is no exception. However, the benefits of using longitudinal data are clear, in general, if not obvious in contingency studies (cf. Zeithaml *et al.* 1988). Specifically, longitudinal analyses enable the researcher to rigorously determine causality and dynamics (lagged effects, feedback loops) within the system under investigation. Such analysis could also reveal how strategic orientations transform into market-based capabilities over time and how capability development and deployment influences performance dynamically. Additionally, to overcome potential concerns for using only one respondent per SBU, multiple informants could be used instead. This would result in increased reliability and validity and allow the examination of multiple hierarchical levels within SBUs with methods such as hierarchical linear modeling. For instance, it would be interesting to see the extent to which perceptions of the level of different strategic orientations vary between top and middle management or employees.

Third, as argued, extant studies have placed little focus on the interplay within and between strategic orientations and market-based capabilities (Newbert 2007; Kraaijenbrink *et al.* 2010). Therefore, academics are somewhat unaware of potential synergies that combinations of these concepts may hold. In this regard, configurational approaches provide a good means to extend current debates. Further, these approaches adopt a systems perspective, instead of reductionist perspective, and enable the examination of equifinality and concurrent non-linear analysis of a comprehensive set of different concepts and potential contingencies. The methodology adopted in Essay IV, fsQCA, is particularly suitable for studying complex interactions, as can be used to overcome several shortcomings related to other established methodologies (see Fiss 2007). Using fsQCA combinations that lead to poor performance can be identified. This opens up a lucrative avenue for future research, as academics could offer managerial audiences contextual 'worst practices' that companies should try to avoid.

Fourth, further conceptual development and empirical testing of the frameworks in this dissertation are welcome. For instance, the frameworks

could be adjusted by substituting certain concepts or by including additional concepts to generate new academic and managerial knowledge. Future research could also distinguish between reactive and proactive market orientation (Narver *et al.* 2004), and consider market orientation (Narver and Slater 1990; Kohli and Jaworski 1990) and learning orientation (Sinkula *et al.* 1997) as multi-dimensional concepts. This would be in line with studies (Greenley 1995; Dobni and Luffman 2000; Frösén *et al.* 2010) that have identified a number of market orientation profiles. Furthermore, future studies could focus on whether and to what extent internal and external business contexts affect relationships between strategic orientations and market-based capabilities. In any model development effort, an adequate level of specificity should be ensured so that drawing relevant conclusions is possible.

Although the discourses adopted in this dissertation are mostly well-established, fruitful areas for research can still be identified. The most promising areas within the field of strategic marketing include 1) contextuality of strategic marketing and outcomes, 2) conceptual and empirical studies on the interplay within and between different strategic orientations and different market-based capabilities, 3) configurational approaches to examine complex strategic marketing systems and equifinality, and 4) longitudinal assessment of causes and effects in strategic marketing and performance outcomes.

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Appendix A: Questionnaire (MC21)

MARKETING IN THE 21ST CENTURY

Q1: Here are a number of statements other managers have made about the markets in which they operate. Thinking about the main market or industry in which you operate, how far do the following describe that market? *Please write in the number from the scale below closest to your views. If you have no opinion or don't know please write 'X'.*

Strongly Disagree	*Disagree*	*Neither Agree nor Disagree*	*Agree*	*Strongly Agree*	*No Opinion or Don't Know*
1	2	3	4	5	X

In Our Main Markets:

Customers are increasingly demanding better quality and reliability in the products and services they buy ☐

New products and services are coming to market more quickly than in the past ☐

The Internet and e-commerce is having a significant impact on business practices ☐

Competition is now global rather than just domestic ☐

Customer wants, needs and expectations are changing rapidly ☐

We operate in a market where all customers want essentially the same thing ☐

Competition for sales is intense ☐

Competition is well established and entrenched ☐

There is a significant threat that new firms will enter the market ☐

There is a significant threat that substitute products or technologies will enter the market ☐

Technological change in this industry is rapid ☐

The bargaining power of suppliers to the industry is strong ☐

Q2: Which of the following best describes the main market or industry in which you operate? *Please tick **ONE** box only.*

- Our market is newly emerging ☐
- Our market is established but growing ☐
- Our market is mature, showing little signs of change ☐
- Our market is now declining ☐

Q3: Which of the following best describes your company's approach to doing business in your main market? *Although, you may identify with several of the statements below, please tick only the **ONE** you think **BEST** summarises your overall approach.*

- Use advertising and selling to help sell our products and services ☐
- Endeavour to offer the best technical product or service in our industry ☐
- Identify the requirements of customers and ensure our products and services meet them ☐
- Concentrate on internal efficiency to achieve low costs to sell our products at the lowest possible prices ☐
- Use our assets and resources to maximise short term profit or other financial measures ☐
- Organise our activities in such a way as to provide security and continuity of employment for our staff and our employees ☐
- Provide the goods and services society in general needs, rather than simply satisfying individual customers ☐

Q4: Here are a number of statements other managers have made about marketing and sales issues. How well do you think each statement relates to your company?

Not at all	*To a very slight extent*	*To a small extent*	*To a moderate extent*	*To a considerable extent*	*To a great extent*	*To an extreme extent*	
1	2	3	4	5	6	7	
							Our commitment to serving customer needs is closely monitored ☐
							Sales people share information about competitors ☐
							Our objectives and strategies are driven by the creation of customer satisfaction ☐
							We achieve rapid response to competitive actions ☐
							Top management regularly visits important customers ☐
							Information about customers is freely communicated throughout the company ☐
							Competitive strategies are based on understanding customer needs ☐
							Business functions are integrated to serve market needs ☐
							Business strategies are driven by increasing value for customers ☐
							Customer satisfaction is systematically and frequently assessed ☐
							Close attention is given to after sales service ☐
							Top management regularly discuss competitors' strengths and weaknesses ☐
							Our managers understand how employees can contribute to value for customers ☐
							Customers are targeted when we have an opportunity for competitive advantage ☐

Q5: Here are some other statements managers have made about their business approach. How far do the following statements describe your company's approach in your main market?

Strongly Disagree	*Disagree*	*Neither*	*Agree*	*Strongly Agree*	*No Opinion*
1	2	3	4	5	X

Our main focus has been on winning market share from competitors	☐
We are prepared to sacrifice short term profitability to gain market share	☐
Over the last few years we have been aiming to build our long term position in the market	☐
Resource allocation generally reflects long term rather than short term considerations	☐
Our main focus has been on expanding the total market for our products and services	☐
Our main strategic priority over the last few years has been to survive	☐
Our main focus has been on cost reduction and efficiency gains	☐
Our objectives are driven by creating shareholder wealth	☐
Senior managers have regular meetings with shareholders	☐
We regularly compare our share value to that of our competitors	☐
We regularly carry out public relations aimed at shareholders	☐
Designated managers have responsibility for aiming to satisfy shareholders' interests	☐
We have regular staff appraisals in which we discuss employees needs	☐
We have regular staff meetings with employees	☐
As a manager I try to find out the true feelings of my staff about their jobs	☐
We survey staff at least once each year to assess their attitudes to their work	☐
Managers agree that our company's ability to learn is the key to competitive advantage	☐
Employee training and learning is seen as an investment rather than an expense	☐
The underlying values of our company include learning as a key to improvement	☐
Our staff realise that our perceptions of the marketplace must be continually questioned	☐
We are more innovative than our competitors in deciding what methods to use in achieving our targets and objectives	☐
We are more innovative than our competitors in initiating new procedures or systems	☐
We are more innovative than our competitors in developing new ways of achieving our targets and objectives	☐
We are more innovative than our competitors in initiating changes in the job contents and work methods of our staff	☐

Q6: Here is a list of marketing assets and capabilities supplied by other managers. Please indicate on which of these you believe your company has an advantage over competitors and on which competitors have an advantage over you. Can you please also indicate which of these (tick up to five) you think are most important in your market.

Strong Competitors' Advantage	*Competitors' Advantage*	*No Difference*	*Our Advantage*	*Our Strong Advantage*	*Don't Know*
1	2	3	4	5	X

	Advantage	*Importance*
Company or brand name and reputation	☐	☐
Credibility with customers due to being well established in the market	☐	☐
Superior levels of customer service and support	☐	☐
Relationships with key target customers	☐	☐
Cost advantage in production	☐	☐
Superior marketing information systems	☐	☐
Superior cost control systems	☐	☐
Copyrights and patents	☐	☐
Good relationships with suppliers	☐	☐
Extent or nature of the distribution network	☐	☐
The uniqueness of our distribution approach	☐	☐
Relationships with distribution channel intermediaries	☐	☐
Market access through strategic alliances or partnerships	☐	☐
Shared technology through strategic alliances or partnerships	☐	☐
Access to strategic partners' managerial know-how and expertise	☐	☐
Access to strategic partners' financial resources	☐	☐
Strong financial management	☐	☐
Effective human resource management	☐	☐
Good operations management expertise	☐	☐
Good marketing management ability	☐	☐
Good at using information about markets, customers and competitors	☐	☐
Good at understanding what customer needs and requirements are	☐	☐
Good at creating relationships with key customers or customer groups	☐	☐
Good at maintaining and enhancing relationships with key customers	☐	☐
Ability to launch successful new products	☐	☐
Good at setting prices which attract customers and achieve financial goals	☐	☐
Good at communicating internally across the organisation	☐	☐
Effective new product/service development processes	☐	☐
Ability to manage relationships with suppliers	☐	☐
Good at pooling expertise with strategic partners	☐	☐
Good at sharing mutual trust with strategic partners	☐	☐
Good at sharing mutual commitment and goals with strategic partners	☐	☐

Q7: Which of the following best describes your position in your main market? *Please tick **ONE** box only.*

- The only company in the market ☐
- Overall Market Leader (largest market share) ☐
- Market Challenger (close second or third largest market share) ☐
- Market Follower (smaller market share) ☐
- Niche Leader (largest market share in chosen market segment) ☐
- Niche Challenger (close second or third in chosen market segment) ☐
- Niche Follower (lower market share in chosen market segment) ☐

Q8: Thinking now about your marketing strategy in your main market. *Please indicate how far you agree with each of the following statements using the scale:*

Strongly Disagree	*Disagree*	*Neither*	*Agree*	*Strongly Agree*	*No Opinion*
1	2	3	4	5	X

- Our objectives are to defend our current market position ☐
- Our objectives are to gain steady sales growth ☐
- Our objectives are to achieve aggressive sales growth to dominate our market ☐
- We seek to attack the whole market ☐
- We target selected market segments within the total market ☐
- We seek to serve selected individual customers within the total market ☐
- We seek to differentiate our products and services from competitors in the market ☐
- We aim to be the lowest cost producer in our industry ☐

Q9: Can you now please tell us how your products and services compare to those of your main competitors, on the following factors. *Please use the following scale. The terms 'lower' or 'higher' are not intended to imply inferior or superior, merely a different competitive positioning in the market:*

Much Lower than Competitors	*Lower than Competitors*	*The same as Competitors*	*Higher than Competitors*	*Much Higher than Competitors*	*Don't Know*
1	2	3	4	5	X

Please also indicate which of these factors are the most important in positioning your products and services against your main competitors. *Please tick the* ***THREE*** *most important factors for your positioning.*

	Comparison	*Importance*
The technical quality of our products and services	☐	☐
The level of customer service and support provided	☐	☐
The strength of the relationships we have with our customers	☐	☐
The price levels charged for our products and services	☐	☐
The degree of innovation in our products and services	☐	☐
The uniqueness of our products and services	☐	☐
The degree of customisation to individual customer requirements	☐	☐
The speed of delivery to our customers	☐	☐
The degree of responsiveness to customer enquiries and requests	☐	☐

Q10: Do you believe your company has a competitive advantage over its market place rivals? If so, how do you go about protecting and enhancing this advantage? *Please use the scale below:*

Strongly Disagree	*Disagree*	*Neither*	*Agree*	*Strongly Agree*	*No Opinion*
1	2	3	4	5	X

Our products and services are highly valued by our customers creating a barrier against competitor products and services	☐
There would be significant costs for customers if they switched from our products and services to those of competitors	☐
Our competitive advantage is difficult for competitors to copy because it uses resources only we have access to	☐
It took time to build our competitive advantage and competitors would find it time-consuming to follow a similar route	☐
Competitors find it difficult to see how we created our competitive advantage in the first place	☐
Competitors could copy our competitive advantage but it would be uneconomic for them to do so	☐
We protect our advantage legally through copyrights and patents	☐
Our employees are the source of our competitive advantage and we ensure we won't lose them to competitors	☐
Competitors would find it difficult to acquire the managerial capabilities needed to create a similar competitive advantage	☐

Q11: Thinking now about how you go about your marketing, how far would you agree with the following statements? *Please use the scale below:*

Strongly Disagree	*Disagree*	*Neither*	*Agree*	*Strongly Agree*	*No Opinion*
1	2	3	4	5	X

We make extensive use of market research	☐
Our market research is focussed on understanding customer needs and requirements	☐
We generally try to standardise our offerings so they can sell across several markets	☐
We customise our products and services so that they meet the requirements of individual customers	☐
We are investing in creating strong well-known brands in the minds of customers	☐
Company and brand reputation are more important to our customers than keeping prices down	☐
We do no new product development	☐
We actively develop new products and services to lead the market	☐
We place great emphasis on building long term relationships with key customers	☐
We regularly monitor and analyse the level of customer satisfaction achieved	☐
We regularly communicate internally about our objectives and strategies	☐
We adopt an internal marketing approach whereby one part of our organisation is seen as the internal customer to other internal suppliers	☐
We set prices on the basis of costs of producing plus a fixed margin for profit	☐
We set prices based on what the market is prepared to pay	☐
We distribute our products direct to our customers	☐
We use wholesalers and/or retailers to distribute our products	☐
We make extensive use of media advertising	☐
We make extensive use of the Internet for promoting our products and services	☐
The main source of promotion we use is our sales force	☐
We place great emphasis on building long term relationships with key suppliers	☐
We place great emphasis on building long term relationships with other organisations and institutions influencing buyers' purchasing decisions	☐

Q12: In your last financial year, how well did your company perform compared with your main competitors on the following criteria? How well did your company perform relative to the previous financial year? *For both of these questions please use the scale below.* Can you also tell us which are the most important measures of performance in your company. *Please tick the **FIVE** most important factors as far as your company is concerned.*

Much Worse 1 | *Worse* 2 | *The same* 3 | *Better* 4 | *Much Better* 5 | *Don't Know* X

	Relative to competitors	*Relative to last year*	*Importance*
Overall Profit Levels Achieved	☐	☐	☐
Profit Margins Achieved	☐	☐	☐
Return on Investment	☐	☐	☐
Sales Volume Achieved	☐	☐	☐
Market share achieved	☐	☐	☐
Levels of customer satisfaction achieved	☐	☐	☐
Levels of customer loyalty achieved	☐	☐	☐
Levels of employee satisfaction with their jobs	☐	☐	☐
Levels of employee retention	☐	☐	☐
Providing employment and income locally	☐	☐	☐
Shareholder satisfaction with financial performance	☐	☐	☐

Q13: Can you please now tell us a little more about your company. Which of the following **best** describes the main industry your company operates in. *Please tick **ONE** only:*

Consumer Durables	☐	Capital Industrial Equipment	☐
Fast Moving Consumer Goods (FMCG)	☐	Business Services	☐
Materials and Components	☐	Consumer Services	☐
Other	_____		☐

Q14: What is the approximate number of employees in your company in the UK?

Less than 20 ☐	300-499 ☐	More than 5000 ☐
20-99 ☐	500-999 ☐	Don't Know ☐
100-299 ☐	1000-4999 ☐	

Q15: What was the approximate turnover and pre-tax profit of your company in the UK in your last financial year? *Please write in:*

Turnover: £ _____ Pre-tax Profit: £ _____

Thank you very much for your time and your help

Appendix B: Questionnaire (SM10)

The State of Marketing 2010

The company's business environment and position in its primary market

The first section covers the business environment of the company you represent as well as its position in its primary market. Unless specified otherwise, respond to each question from the perspective of the strategic business unit (SBU) and – if your company operates in multiple lines of business – the primary line of business (as indicated in Q5). If your company does not have clearly distinguishable units in terms of business activities or markets, respond from the perspective of the company as a whole.

Q1: Name of the respondent: _____

Q2: Contact information
E-mail: _____
Telephone: _____

Q3: Position in the organization (job title): _____

Q4: Name of the company and (if applicable) the SBU you represent:
_____

Q5: What is the primary line of business of your business unit?
Please choose **only one** of the following:

- ❒ Agriculture, game husbandry, forestry and fishing
- ❒ Mining and quarrying
- ❒ Manufacture of food and beverage products
- ❒ Manufacture of textiles, clothing and leather
- ❒ Manufacture of timber and wood products
- ❒ Manufacture of pulp and paper products, publishing and printing
- ❒ Manufacture of oil, rubber and plastic products and chemical products
- ❒ Manufacture of non-metallic mineral products
- ❒ Metal refining and manufacture of metal products
- ❒ Manufacture of machinery and equipment
- ❒ Manufacture of electronics and electronic products
- ❒ Manufacture of vehicles
- ❒ Energy and water supply
- ❒ Construction
- ❒ Agency and wholesale operations
- ❒ Sale, repairs and maintenance of motor vehicles and fuel retailing
- ❒ Retail operations
- ❒ Hotel and restaurant operations
- ❒ Transport, storage and data communications
- ❒ Financing and insurance, banking
- ❒ Real estate services and rental operations
- ❒ Information processing services
- ❒ Research and development
- ❒ Other business services (B2B services)
- ❒ Public administration and national defence
- ❒ Education
- ❒ Health care and social services
- ❒ Environmental management
- ❒ Non-profit organizational activities
- ❒ Recreational, cultural and sports activities
- ❒ Other

Q6: What is the share (in percentages) of your SBU's turnover represented by different product and service types?

You need to assign values between 0 (zero) and 100 (including these extremes) to each of the four categories below so that the sum of values equals to 100.

Consumer (b2c) goods: _____
Business (b2b) goods: _____
Consumer (b2c) services: _____
Business (b2b) services: _____

Q7: Which of the following best describes your business unit's market or primary line of business?

Please choose **only one** of the following:

❒ New, emerging market
❒ Growing market: the market is established but still exhibits steady growth
❒ Mature market: the market is established and no significant changes are seen
❒ Declining market: growth of the market is negative

Q8: Which of the following best describes your SBU's position on its primary market?

Please choose **only one** of the following:

❒ The only company on the market
❒ Market leader: largest market share
❒ Challenger: second or third largest market share
❒ Follower: not in the top three in terms of market share

Q9: To what extent do the following statements describe your SBU's market and line of business? Please choose the appropriate response **for each item**.

	Strongly agree	Agree	Somewhat agree	Neither	Somewhat disagree	Disagree	Strongly disagree	Can't say
Customers' product/service preferences change quite a bit over time.	❒	❒	❒	❒	❒	❒	❒	❒
Customers tend to look for new product/service all the time.	❒	❒	❒	❒	❒	❒	❒	❒
We are witnessing demand for our products from customers who never bought them before.	❒	❒	❒	❒	❒	❒	❒	❒
New customers tend to have needs that are different from those of our existing customers.	❒	❒	❒	❒	❒	❒	❒	❒
We cater to many of the same customers that we used to in the past.	❒	❒	❒	❒	❒	❒	❒	❒
Competition is cutthroat.	❒	❒	❒	❒	❒	❒	❒	❒
There are many promotion wars.	❒	❒	❒	❒	❒	❒	❒	❒
Anything that one competitor can offer, others can readily match.	❒	❒	❒	❒	❒	❒	❒	❒
Price competition is a hallmark of our industry.	❒	❒	❒	❒	❒	❒	❒	❒
New competitive moves are almost daily.	❒	❒	❒	❒	❒	❒	❒	❒
Our competitors are relatively weak.	❒	❒	❒	❒	❒	❒	❒	❒
The technology is changing rapidly.	❒	❒	❒	❒	❒	❒	❒	❒
Technological changes offer big opportunities.	❒	❒	❒	❒	❒	❒	❒	❒
A large number of new product ideas have been made possible via technological breakthroughs.	❒	❒	❒	❒	❒	❒	❒	❒
Technological developments are rather minor.	❒	❒	❒	❒	❒	❒	❒	❒

Q10: Please evaluate how important the following competitive weapons are in your SBU's business?

Please choose the appropriate response **for each item**:

	Very important	Important	Of average importance	Only somewhat important	Not important at all	Can't say
New product/service development	❒	❒	❒	❒	❒	❒
Operating efficiency	❒	❒	❒	❒	❒	❒
Product/service quality control	❒	❒	❒	❒	❒	❒
Experienced/trained personnel	❒	❒	❒	❒	❒	❒
Developing/refining existing products/services	❒	❒	❒	❒	❒	❒
Brand identification	❒	❒	❒	❒	❒	❒
Innovation in marketing techniques and methods	❒	❒	❒	❒	❒	❒
Control in channels of distribution	❒	❒	❒	❒	❒	❒
Capability to manufacture specialty products	❒	❒	❒	❒	❒	❒
Products/services in high price market segments	❒	❒	❒	❒	❒	❒
Advertising	❒	❒	❒	❒	❒	❒
Reputation within industry	❒	❒	❒	❒	❒	❒
Innovation in manufacturing processes	❒	❒	❒	❒	❒	❒

The role of marketing

The second section covers the tasks, role and tasks of marketing in your business unit.

Q11: What is the relationship between marketing and product development in your **SBU**?

Please choose **only one** of the following:

- ❒ They are two separate functions
- ❒ The functions are collaborative in some areas
- ❒ The functions are collaborative in most areas
- ❒ Product development and marketing cannot be distinguished as two separate functions

Q12: What is the relationship between marketing and sales in your **SBU**?

Please choose **only one** of the following:

- ❒ They are two separate functions
- ❒ The functions are collaborative in some areas
- ❒ The functions are collaborative in most areas
- ❒ Sales and marketing cannot be distinguished as two separate functions

Q13: How strong strategic role marketing plays in the following functions in your SBU?

Please choose the appropriate response **for each item**:

	Very strong role	Strong role	Somewhat strong role	Weak role	No role at all	Can't say
Top management	❒	❒	❒	❒	❒	❒
Internal communications	❒	❒	❒	❒	❒	❒
External communications	❒	❒	❒	❒	❒	❒
Sales	❒	❒	❒	❒	❒	❒
Customer relationship management	❒	❒	❒	❒	❒	❒
Management of investor relations	❒	❒	❒	❒	❒	❒
Research and development	❒	❒	❒	❒	❒	❒
Logistics and supply chain management	❒	❒	❒	❒	❒	❒

The effectiveness and results of marketing

This section focuses on topics related to monitoring marketing performance. The section covers, among other things, measurement practices, their appropriateness and the challenges related to measurement.

Q20: Is the achievement of marketing objectives regularly monitored in your SBU?

Please choose **only one** of the following:

- ❒ Yes
- ❒ No

Q21: At what level/frequency is the achievement of objectives monitored?

Please choose **all** that apply:

- ❒ Annually
- ❒ Quarterly
- ❒ Monthly or more frequently
- ❒ On a project-specific basis

Q22: Are the results of marketing reported to parties that are external to the company (e.g. in annual reports or other documents published with financial statements)?

Please choose **only one** of the following:

- ❒ Yes
- ❒ No

Q23: Where and how are the results of marketing reported to the external parties?

Please write your answer here:

Q24: Which of the following marketing metrics are 1) in use in your SBU, and 2) essential for the purposes of your SBU? Please choose all that apply.

Metrics related to the consumer's / end user's thoughts and feelings

	In use	Essential
Awareness (prompted/unprompted/total)	❒	❒
Salience (prominence/stand-out)	❒	❒
Perceived quality / esteem (how highly rated)	❒	❒
Consumer satisfaction (confirmation of expectations)	❒	❒
Relevance to consumer ("my kind of brand")	❒	❒
Image / personality / identity (strength of individuality)	❒	❒
(Perceived) differentiation (how distinct from other brands)	❒	❒
Commitment / purchase intent (expressed likelihood of buying)	❒	❒
Other attitudes, e.g. liking (may be a variety of indicators)	❒	❒
Knowledge (experiences with product attributes)	❒	❒

Metrics related to consumer / end user behavior

	In use	Essential
Total number of consumers	❒	❒
Number of new consumers	❒	❒
Loyalty / retention (e.g. % buying this year and last year)	❒	❒
Price sensitivity / elasticity (any measure of volume sensitivity)	❒	❒
Purchasing on promotion	❒	❒
Number of products per consumer (width of range end users buy)	❒	❒
Number of leads generated / inquiries (number of new prospects)	❒	❒
Conversion percentage (prospect to sales conversion)	❒	❒
Number of consumer complaints (level of end user dissatisfaction)	❒	❒

Metrics related to the quality of relationships with retailers / trade customers

	In use	Essential
Distribution / availability (e.g. number of stores)	❒	❒
Customer satisfaction	❒	❒
Number of customer complaints	❒	❒

Metrics related to market performance relative to competitors

	In use	Essential
Market share (share of market by volume)	❒	❒
Relative price (e.g. share of market value / share of market volume)	❒	❒
Loyalty / share (share of category requirements)	❒	❒
Penetration (% of total who buy brand in period)	❒	❒
Relative consumer satisfaction (e.g., satisfaction compared to competitors)	❒	❒
Relative perceived quality (perceived quality compared to quality leader)	❒	❒
Share of voice (brand advertising share within category)	❒	❒

Metrics related to the results of innovation

	In use	Essential
Number of new products in period (new product launches)	❒	❒
Revenue of new products (turnover, sales)	❒	❒
Margin of new products (gross profit)	❒	❒

Metrics related to financial performance

	In use	Essential
Sales (value and/or volume)	❒	❒
Discount % (allowances as % of sales)	❒	❒
Gross margins (gross profit as % of sales turnover)	❒	❒
Marketing spend (e.g., advertising, PR, promotion)	❒	❒
Profit / profitability (contribution, trading, or before tax)	❒	❒
Shareholder value	❒	❒
Economic value added (EVA)	❒	❒
Return on investment (ROI)	❒	❒
Customer lifetime value (CLV)	❒	❒

Q25: Assess your SBU's ability to measure performance in the following areas:

Please choose the appropriate response **for each item**:

	Very good	Good	Fairly good	Neither poor nor good	Fairly poor	Poor	Very poor	Irrelevant
Consumer/end user thoughts and feelings	❒	❒	❒	❒	❒	❒	❒	❒
Consumer/end user behavior	❒	❒	❒	❒	❒	❒	❒	❒
Quality of relationships with retailers/trade customers	❒	❒	❒	❒	❒	❒	❒	❒
Performance relative to competitors	❒	❒	❒	❒	❒	❒	❒	❒
Results of innovation	❒	❒	❒	❒	❒	❒	❒	❒
Financial performance	❒	❒	❒	❒	❒	❒	❒	❒

Q26: What are the main obstacles to improving marketing performance measurement?

Please choose **all** that apply:

- ❒ Insufficient funding available
- ❒ Insufficient executive time
- ❒ No cross-functional support
- ❒ Lack of expertise
- ❒ Lack of incentives
- ❒ Lack of data
- ❒ Lack of commitment
- ❒ Lack of consistency in measurement over time

Other: _____

Q27: According to the top management team, what is your SBU's level of marketing performance currently?

Please choose **only one** of the following:

- ❒ Very good
- ❒ Good
- ❒ Average
- ❒ Poor
- ❒ Very poor
- ❒ Can't say

Business processes and marketing

We would like you to now assess your SBU's abilities and performance in three key business processes in relation to your key rivals.

Q28: Assess your SBU's relative ability/performance in product development and innovation.

Please choose the appropriate response **for each item**:

	Much better	Better	Somewhat better	Neither	Somewhat worse	Worse	Much worse	Not relevant	Can't say
Ability to develop new product/service ideas	❒	❒	❒	❒	❒	❒	❒	❒	❒
Exploitation of new business models	❒	❒	❒	❒	❒	❒	❒	❒	❒
Utilizing external stakeholders and networks in product development	❒	❒	❒	❒	❒	❒	❒	❒	❒
Cross-functional collaboration and information sharing	❒	❒	❒	❒	❒	❒	❒	❒	❒
Rapid commercialization of ideas	❒	❒	❒	❒	❒	❒	❒	❒	❒
# of product/service innovations	❒	❒	❒	❒	❒	❒	❒	❒	❒
Ability to successfully launch new products/services	❒	❒	❒	❒	❒	❒	❒	❒	❒
Return on R&D investments	❒	❒	❒	❒	❒	❒	❒	❒	❒

Q29: Assess your SBU's relative ability/performance in supply chain management.

Please choose the appropriate response **for each item**:

	Much better	Better	Somewhat better	Neither	Somewhat worse	Worse	Much worse	Not relevant	Can't say
Utilization of ICT	❒	❒	❒	❒	❒	❒	❒	❒	❒
Attracting and retaining best distributors	❒	❒	❒	❒	❒	❒	❒	❒	❒
Attracting & retaining best suppliers	❒	❒	❒	❒	❒	❒	❒	❒	❒
Management of installation and maintenance	❒	❒	❒	❒	❒	❒	❒	❒	❒
Order processing abilities	❒	❒	❒	❒	❒	❒	❒	❒	❒
Effective invoicing and terms	❒	❒	❒	❒	❒	❒	❒	❒	❒
Management of logistics and inventory	❒	❒	❒	❒	❒	❒	❒	❒	❒
Level of maintenance and service assistance to distributors	❒	❒	❒	❒	❒	❒	❒	❒	❒
Delivery accuracy	❒	❒	❒	❒	❒	❒	❒	❒	❒

Q30: Assess your SBU's relative ability/performance in customer relationship management.

Please choose the appropriate response **for each item**:

	Much better	Better	Somewhat better	Neither	Somewhat worse	Worse	Much worse	Not relevant	Can't say
Gathering customer information	❒	❒	❒	❒	❒	❒	❒	❒	❒
Management of customer information systems (CRM)	❒	❒	❒	❒	❒	❒	❒	❒	❒
Retaining customer relationships	❒	❒	❒	❒	❒	❒	❒	❒	❒
Understanding customer needs in order to deliver what they want	❒	❒	❒	❒	❒	❒	❒	❒	❒
Identifying potential new customers	❒	❒	❒	❒	❒	❒	❒	❒	❒
Development/execution of customer service programs	❒	❒	❒	❒	❒	❒	❒	❒	❒
Development/execution of customer encounters	❒	❒	❒	❒	❒	❒	❒	❒	❒
Ability to respond to customer enquiries and requests rapidly	❒	❒	❒	❒	❒	❒	❒	❒	❒
Cross-selling of products/services	❒	❒	❒	❒	❒	❒	❒	❒	❒
Up-selling of product/services	❒	❒	❒	❒	❒	❒	❒	❒	❒
Terminating unprofitable customer relationships	❒	❒	❒	❒	❒	❒	❒	❒	❒
Customer satisfaction	❒	❒	❒	❒	❒	❒	❒	❒	❒

Key managerial challenges and marketing investments

Let us now focus on managerial challenges in your SBU, and on factors underlying your marketing investments decisions.

Q31: To what extent are management attention and resources directed at the following challenges in your business unit:

Please choose the appropriate response **for each item**:

	Significant attention			Average attention			Little attention	Irrelevant
Developing new products or applications	❒	❒	❒	❒	❒	❒	❒	❒
Securing financial resources and backing	❒	❒	❒	❒	❒	❒	❒	❒
Acquiring key outside advisors or board members	❒	❒	❒	❒	❒	❒	❒	❒
Product support or customer service	❒	❒	❒	❒	❒	❒	❒	❒
Attracting capable personnel	❒	❒	❒	❒	❒	❒	❒	❒
Adequate facilities and/or space	❒	❒	❒	❒	❒	❒	❒	❒
Developing network of reliable vendors/suppliers	❒	❒	❒	❒	❒	❒	❒	❒
Produce in volumes adequate to meet demand	❒	❒	❒	❒	❒	❒	❒	❒
Meet sales targets	❒	❒	❒	❒	❒	❒	❒	❒
Management depth and talent	❒	❒	❒	❒	❒	❒	❒	❒
Cost control	❒	❒	❒	❒	❒	❒	❒	❒
Definition of organizational roles and policies	❒	❒	❒	❒	❒	❒	❒	❒
Managing information systems	❒	❒	❒	❒	❒	❒	❒	❒
Attaining profitability / market share goals	❒	❒	❒	❒	❒	❒	❒	❒
Penetrating new geographic territories	❒	❒	❒	❒	❒	❒	❒	❒
Administrative burden and red tape	❒	❒	❒	❒	❒	❒	❒	❒
Development of financial systems and controls	❒	❒	❒	❒	❒	❒	❒	❒
Establishing a firm position in product/market segments	❒	❒	❒	❒	❒	❒	❒	❒
Studying and satisfying customer needs	❒	❒	❒	❒	❒	❒	❒	❒
Systematic analysis of competitors	❒	❒	❒	❒	❒	❒	❒	❒

Q32: Under what circumstances does your SBU make the greatest new investments in marketing? Please select **three most relevant** alternatives from the below list.

- ❒ When competition intensifies
- ❒ When entering new product areas
- ❒ When entering new market areas
- ❒ When the company has had success and has accumulated funds
- ❒ When the company is doing poorly and needs more revenue and customers
- ❒ When growth targets are emphasized in the company's strategy
- ❒ New investments are made fairly constantly, not depending much on financial or market-related factors
- ❒ Can't say

Market orientation and organizational learning

In this section, strategic emphases and practices in, among others, customer and competitor orientations and organizational learning, are investigated.

Q33: To what extent do the following statements describe the current situation in your SBU?

Please choose the appropriate response **for each item**:

	Strongly agree	Agree	Somewhat agree	Neither	Somewhat disagree	Disagree	Strongly disagree	Irrelevant
Our salespeople regularly share information within our business concerning competitors' strategies	❒	❒	❒	❒	❒	❒	❒	❒
Our business objectives are driven primarily by customer satisfaction	❒	❒	❒	❒	❒	❒	❒	❒
We rapidly respond to competitive actions that threaten us	❒	❒	❒	❒	❒	❒	❒	❒
We constantly monitor our level of commitment to serving customer needs	❒	❒	❒	❒	❒	❒	❒	❒
Our top managers from every function regularly visit our current and prospective customers	❒	❒	❒	❒	❒	❒	❒	❒
We freely communicate information about our successful and unsuccessful customer experiences across all business functions	❒	❒	❒	❒	❒	❒	❒	❒
Our strategy for competitive advantage is based on our understanding of customer needs	❒	❒	❒	❒	❒	❒	❒	❒
All of our business functions are integrated in serving the needs of our target markets	❒	❒	❒	❒	❒	❒	❒	❒
Our business strategies are driven by our beliefs about how to create greater value for customers	❒	❒	❒	❒	❒	❒	❒	❒
We measure customer satisfaction systematically and frequently	❒	❒	❒	❒	❒	❒	❒	❒
We give close attention to after-sales service	❒	❒	❒	❒	❒	❒	❒	❒
Top management regularly discusses competitors' strengths and strategies	❒	❒	❒	❒	❒	❒	❒	❒
All our managers understand how everyone can contribute to creating customer value	❒	❒	❒	❒	❒	❒	❒	❒
We target customers where we have an opportunity for competitive advantage	❒	❒	❒	❒	❒	❒	❒	❒
We share resources with other business units	❒	❒	❒	❒	❒	❒	❒	❒

Q34: To what extent do the following statements describe the current situation in your SBU?

Please choose the appropriate response **for each item**:

	Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Not relevant
Managers basically agree that our ability to learn is the key to our competitive advantage	❒	❒	❒	❒	❒	❒	❒	❒
The basic values of this organization include learning as key to improvement	❒	❒	❒	❒	❒	❒	❒	❒
The sense around here is that employee learning is an investment, not an expense	❒	❒	❒	❒	❒	❒	❒	❒
Learning is seen as a key commodity necessary to guarantee organizational survival	❒	❒	❒	❒	❒	❒	❒	❒
There is a commonality of purpose in my organization	❒	❒	❒	❒	❒	❒	❒	❒
There is total agreement on our organizational vision across all levels, functions, and divisions	❒	❒	❒	❒	❒	❒	❒	❒
All employees are committed to the goals of this organization	❒	❒	❒	❒	❒	❒	❒	❒
Employees view themselves as partners in charting the direction of the organization	❒	❒	❒	❒	❒	❒	❒	❒
We are not afraid to reflect critically on the shared assumptions made about our customers	❒	❒	❒	❒	❒	❒	❒	❒
Personnel in this enterprise realize that the very way they perceive the marketplace must be continually questioned	❒	❒	❒	❒	❒	❒	❒	❒
We rarely collectively question our own biases about the way we interpret customer information	❒	❒	❒	❒	❒	❒	❒	❒

Background information

In this last section, we would like to ask for some more information regarding the SBU you represent. All information is kept strictly confidential and the results of the survey are reported in terms of aggregate responses and categories only, thereby making it impossible to identify individual companies.

Q35: Form of ownership

Please choose **only one** of the following:

- ❒ Limited company
- ❒ Public limited company
- ❒ Other _____

Q36: What is the share of foreign ownership in the company you represent?

Please choose **only one** of the following:

- ❒ 0 %
- ❒ < 25 %
- ❒ 25 - 50 %
- ❒ 51 - 75 %
- ❒ > 75 %
- ❒ 100 %
- ❒ Can't say

Q37: What is the number of employees in your SBU?

Please choose **only one** of the following:

- ❒ 1 - 5
- ❒ 6 - 10
- ❒ 11 - 20
- ❒ 21 - 50
- ❒ 51 - 100
- ❒ 101 - 250
- ❒ 251 - 500
- ❒ More than 500
- ❒ Can't say

Q38: What is your SBU's market share in its primary market?

Please choose **only one** of the following:

- ❒ Less than 1 %
- ❒ 1 % - 3 %
- ❒ 3.1 % - 5 %
- ❒ 5.1 % - 10 %
- ❒ 10.1 % - 20 %
- ❒ 20.1 % - 35 %
- ❒ 35.1 % - 50 %
- ❒ Over 50 %
- ❒ Can't say

Q39: According to most recently published figures, what is your SBU's turnover (EUR)?

Please choose **only one** of the following:

- ❒ Less than 350,000
- ❒ 350,000 - 2 million
- ❒ 2.1 million - 10 million
- ❒ 10.1 million - 50 million
- ❒ 50.1 million - 100 million
- ❒ 100.1 million - 250 million
- ❒ 250.1 million - 500 million
- ❒ 500.1 million - 1,000 million
- ❒ Over 1,000 million
- ❒ Can't say

Q40: We would like you to still assess the performance of your SBU in the following categories **relative to your main rivals**.

Please choose the appropriate response **for each item**:

	Much larger	Larger	Somewhat larger		Somewhat smaller	Smaller	Much smaller	Can't say
Turnover	❒	❒	❒	❒	❒	❒	❒	❒
Profit / profit margins	❒	❒	❒	❒	❒	❒	❒	❒
Return on investment (ROI)	❒	❒	❒	❒	❒	❒	❒	❒
Return on assets (ROA)	❒	❒	❒	❒	❒	❒	❒	❒
Return on marketing investment (ROMI)	❒	❒	❒	❒	❒	❒	❒	❒
Market share	❒	❒	❒	❒	❒	❒	❒	❒
Share of turnover from new products/services	❒	❒	❒	❒	❒	❒	❒	❒
Profitability of new products/services	❒	❒	❒	❒	❒	❒	❒	❒

Q41: Finally, according to the top management of your SBU, what is the SBU's current level of business performance?

Please choose **only one** of the following:

- ❒ Very good
- ❒ Good
- ❒ Average
- ❒ Poor
- ❒ Very poor
- ❒ Can't say

Thank you for completing this survey.

PART II: ESSAYS ON STRATEGIC ORIENTATIONS, MARKET-BASED CAPABILITIES AND BUSINESS PERFORMANCE

Essay I

**Matti Jaakkola, Kristian Möller, Petri Parvinen,
Heiner Evanschitzky and Hans Mühlbacher**

Strategic marketing and business performance: A study in three European 'engineering countries'

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Strategic marketing and business performance: A study in three European 'engineering countries'

Abstract

In spite of its relevance, the effects of strategic marketing on business performance are sparingly studied, especially in particular business contexts. We address this gap in two ways. First, we examine the influence of four key strategic marketing concepts—market orientation, innovation orientation, and two marketing capability categories (outside-in and inside-out capabilities)—on company performance. Second, these relationships are studied in three European "engineering countries:" Austria, Finland and Germany. Their relative homogeneity enables testing the generality versus context-specificity of strategic marketing's performance impact. Using SEM analysis, surprisingly weak relationships between market orientation and outside-in capabilities, and business performance are identified, as opposed to the strong role of inside-out capabilities and innovation orientation. These results can be understood through the "engineering country" characteristics. Moreover, clear differences in results are identified among these relatively homogenous countries. This is a major finding as it challenges the widely assumed generality of the strategic marketing–performance relationship. Country-specific results have also considerable managerial relevance.

Key words:

Strategic marketing; business performance; resource-based view; business orientations; structural equation modeling

INTRODUCTION

Marketing efforts and know-how are instrumental in commercializing ideas and inventions and in running successful business. Nevertheless, the effect of strategic marketing on business performance remains elusive, even despite an established research tradition (Srivastava, Shervani & Fahey 1998; Matsuno, Mentzer & Özomer 2002; Hooley, Greenley, Cadogan & Fahy 2005). This may be due to the fact that the outcomes of strategic marketing are subject to many internal and external influences, making the identification of cause-and-effect linkages very hard (Bonoma & Clark 1988). A related issue is that the majority of studies examine only the effects of two or three marketing factors at a time. This is a clear limitation compared to corporate reality. The current situation is alarming and several studies emphasize the urgency to demonstrate relationships between marketing inputs, processes and business outcomes (e.g. O'Sullivan & Abela 2007; Morgan, Clark & Gooner 2002).

Another critical aspect in the strategic marketing research is the dominance of cross-sectional research design. By studying the marketing effects over several industries and even over countries, we receive highly averaged results that may also contain a lot of 'noise.' This methodological approach regards the influence of strategic marketing as generic. That is, the impact of marketing factors is presumed to be constant across different types of business contexts. This is a strong assumption and we lack sufficient knowledge of the effects of strategic marketing factors in particular business contexts (Morgan *et al.* 2002; Homburg, Workman & Krohmer 1999; Makino, Isobe & Chan 2004). This is an evident shortcoming, as research in market orientation suggests the relevance of contextual analysis, where even a cross-national meta-analysis of its performance impact is available (Ellis 2006). Additional evidence of contextuality is available through studies that employ the strategy typology of Miles and Snow (1978) as contextual determinants (e.g. Slater, Olson & Hult 2006; Desarbo, Di Benedetto, Song & Sinha 2005).

The present study addresses recognized research gaps in two ways. First, as recommended by Hooley, Greenley, Fahy & Cadogan (2001), we examine the influence of four key strategic marketing concepts—market orientation (e.g. Narver & Slater 1990; Kohli & Jaworski 1990), innovation orientation (e.g. Siguaw, Simpson & Enz 2006), and the two marketing capability categories (outside-in and inside-out capabilities; Day 1994)—on company performance. As company performance is a complex phenomenon, we model it using competitive advantage, market performance, and financial

performance (e.g. Morgan *et al.* 2002). These solutions aim to match the complexity of strategic marketing and performance relationships.

Second, in order to examine the marketing–performance connection in a specific environment, we select countries as the research context and carry out analysis in Austria, Finland and Germany. These countries, coined "engineering countries," are chosen for a number of reasons. First, it will be shown that they are significantly similar in their business cultural heritages and business policies, all emphasizing technological and engineering innovations and having strong exports in these fields. These characteristics are interesting when examining the relative role of market orientation and marketing capabilities versus innovation orientation. Moreover, these three relatively homogenous countries provide a critical setting for testing the generality versus context specificity of the performance impact of strategic marketing. Finally, country-specific results also have considerable managerial relevance. To provide readers with a better understanding of this research strategy, the selected countries are briefly described next.

The general similarities among Austria, Finland and Germany, as "engineering countries," can be identified from extant research literature, as well as from our data. For example, for years, these countries' expenditures on research and development as a percentage of GDP are well above OECD and European Union averages (OECD 2008). To generalize, companies that operate in "engineering countries" tend to strive for product superiority, potentially at the expense of focusing on customer satisfaction and needs fulfillment. Moreover, companies in these countries have, relatively speaking, based significant amounts of their competitive strategies on high technology and process technology applications. Thus, we expect that engineering-oriented companies may gain success almost purely on the basis of engineering skills and process efficiencies, whereas their marketing abilities may be underdeveloped. Using the concepts of this study, "engineering countries" are inherently assumed to be more innovation-oriented than market-oriented, and possess more inside-out capabilities than outside-in capabilities. Accordingly, as argued by Avlonitis and Gounaris (1997), we would expect improvements in business performance if these companies are able to combine their engineering skills with enhanced marketing skills and market knowledge. These somewhat speculative expectations offer additional relevance when focusing on "engineering countries."

Austria currently boasts one of the fastest-growing engineering industries in Europe, while, in absolute numbers, Germany remains by far the largest producer of engineering equipment in the EU (Ayala, Spiechowicz & Vidaller 2006). Despite Germany's strength in engineering-related

industries (Randlesome 1994), German companies characteristically have lower levels of marketing professionalism than many of their international competitors (Shaw, Shaw & Enke 2003). Likewise in Finland, engineering—and not marketing—is considerably important, as evidenced by its second position in a 2006 R&D expenditures per GDP comparison among OECD countries (OECD 2008). In Finland and Austria, innovative activities and science-industry relations are approximately equal (Dachs, Ebersberger & Pyka 2004), while Czarnitzki, Ebersberger and Fier (2007) argue that Finland and Germany have several comparables with regard to national innovation and R&D policies as well as public funding. Further, networking and close cooperation between universities and industry are seen as key strengths in both countries (Czarnitzki *et al.* 2007). These three countries have additional traits in common: high, closely similar standards of living (GDP per capita somewhat above the average of OECD countries) and easy access to European markets as members of the European Union.

To summarize, the primary objective of the present study is to empirically examine how market orientation, innovation orientation, and marketing capabilities affect the financial performance of companies through competitive advantages and market performance. Importantly, we consider country-specific moderation on performance, which almost all prior studies neglect (Ellis 2006 provides a notable exception). Accordingly, the questions we attempt to answer are:

1. *How does strategic marketing, in terms of orientations and capabilities, influence company financial performance in "engineering countries?"*
2. *Are the results consistent within the "engineering countries," or are there any significant country-specific differences?*

These questions are highly relevant for both theory development and managerial practice. Answer to the first provides a comprehensive model of the strategic marketing–performance relationship and the second question is critical to the assumption of the generic nature of this relationship. In more managerial terms, we examine whether it is innovation-driving company culture and principles, highly developed market orientation, or perhaps certain marketing capabilities that most strongly drive superior performance in the context of "engineering countries." Moreover, what are potential areas of improvement, and are these the same in all countries? Answers to these questions are of interest to any company that seeks profitable growth. If results suggest that the same rules clearly do not apply from one country to another, this can be a strong argument for the relevance of the "act local" principle also to strategic marketing.

The rest of the paper is structured as follows. The next section discusses the study's theoretical grounds and develops its general conceptual framework. This framework is then broken down into constructs and a set of hypotheses are constructed based on extant literature. Thereafter, the methodology, analysis and key findings are presented. Discussion of both theoretical and managerial implications, limitations and avenues for further studies concludes the paper.

THEORETICAL BACKGROUND

In 1992, Webster suggests that the distinction between marketing and strategic planning is blurred, and the performers of these functions are increasingly the same. As such movement is evidenced, strategic marketing becomes a recognized phenomenon (see e.g. Fahy & Smithee 1999). However, the concept of strategic marketing is used in various ways while an established definition is not yet available. In this paper, strategic marketing is defined as a deeply stakeholder-oriented concept that focuses on a company's long-term vision for competitive advantage and value-addition through innovation. This definition has its grounds on AMA's current (2007) definition of marketing (see below), but extends it by including innovation as a central marketing-related, strategic business element.

> "Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large." (American Marketing Association 2007)

The present study finds theoretical grounds in the resource-based view (RBV) of the firm, according to which competitive advantage—and subsequently performance—depends on historically developed resource endowments (Wernerfelt 1984). Therefore, firms—and marketing in particular (Hooley *et al.* 2001)—should build on resources that contribute to their ability to produce valuable, rare, imperfectly imitable and non-substitutable market offerings in a manner that is either efficient or effective (Barney 1991; Hunt & Morgan 1995). As Fahy and Smithee (1999) argue, intangible resources and capabilities, such as organizational learning (e.g. Santos-Vijande *et al.* 2005) and customer knowledge (e.g. Webster 1992) are especially difficult to duplicate and thus, provide a meaningful basis for marketing strategy and market position development. As such,

intangible resources and capabilities have the potential to become distinctive competencies for the firm (Blois & Ramirez 2006). In this sense, the present study also elaborates on the discourse surrounding competence-based marketing, which extends the focus from resources and competencies as inputs to resources and competencies also as marketable outputs (Zerbini *et al.* 2007).

Growing evidence in practice and academic research supports the idea that firm competencies and resources are key factors of assessing a firm's future value potential (e.g. Möller & Törrönen 2003) and, thus, supplier selection in business markets (e.g. Golfetto & Gibbert 2006). Using the terminology of Ritter (2006), we are referring to process and market competencies in particular (i.e., routines related to the properties and characteristics of the firm's value-creation process and the value transfer between the firm and its environment) in this study.

There is an emerging discussion within market-orientation research, as originated by Kohli and Jaworski (1990) and Narver and Slater (1990), on the moderating effects of environmental variables on the relationship between market orientation and business performance (Kaynak & Kara 2004; Han, Kim & Srivastava 1998). However, much remains unsettled, while the same applies to contextual moderation of performance with regard to other marketing phenomena, (cf. Auh & Menguc 2007; Avlonitis & Gounaris 1997). This research type benefits particularly from studies in different business contexts (industry, national and/or cultural), since they enable testing procedures for the generalizability of results. To enhance the understanding of contextual moderation, we examine performance mechanism in a cross-country setting, among "culturally engineering-oriented" countries.

The role of innovation and innovation orientation in the market orientation versus performance puzzle is also somewhat unclear. We are accustomed to thinking that innovation works positively both directly and indirectly (e.g., through entrepreneurship) with market orientation (Hult, Hurley & Knight 2004; Manu 1992). Thus, these orientations may be complementary, as Menguc and Auh (2006) suggest. However, in practice, technology-oriented firms may not value market-based innovations, because such innovations can be considered technologically too straightforward (Zhou, Yim & Tse 2005). Therefore, companies may want to drive the market, rather than be market-driven (e.g. Carrillat, Jaramillo & Locander 2004). While market-driven refers to a business logic that is based on understanding and reacting to the preferences and behaviors of players within a given market structure, market-driving implies influencing the structure of the market and/or the market players' behaviors so that the

business' competitive position is enhanced (Jaworski *et al.* 2000). By doing so, market-driving potentially allows firms to better match customer value opportunities with their own capabilities (Carrillat *et al.* 2004). Berghman, Matthyssens and Vandenbempt (2006) suggest that this might be especially true for companies that interact with professional customers.

Market-driven firms are superior in terms of market-focused learning capabilities and marketing capabilities (Day 1994). Further, when these capabilities are deeply embedded within the organization, all functional activities and organizational processes are better directed toward anticipating and responding to changing market requirements (Weerawardena & O'Cass 2004). However, in today's competitive business arena, companies are continuously challenged to anticipate rather than follow changes in customer value and firms must be designed so that they can quickly absorb new knowledge into the organization and thus, create new customer value while concurrently exploiting existing best practices (Berghman *et al.* 2006; O'Reilly & Tushman 2004). In the present study, emphasis is placed on market-driven strategic marketing.

We place a strong emphasis on the effectiveness, or strategic performance that results from performing the right marketing activities (Drucker 1966). As Pfeffer and Salancik's (1978) point out, however, effectiveness is not a universal concept since the effectiveness of an organization depends on which group, and with which criteria and preferences, the assessment is provided. However, generally what is being produced is just as important as the way in which it is produced (Pfeffer & Salancik 1978).

Figure 1 illustrates the study's general framework. Accordingly, strategic marketing resources and orientations are assumed to effect company success at both the competitive advantage and performance level. Since business environmental factors, such as national characteristics and market dynamics, inevitably moderate the relationships between strategic marketing and performance, they must be considered as well. Additionally, the leveraging effects of company success in strategic marketing resources and orientations likely exist, but (see e.g. Lovett & MacDonald 2005), due to the cross-sectional nature of data, this feedback loop must, unfortunately, be ignored.

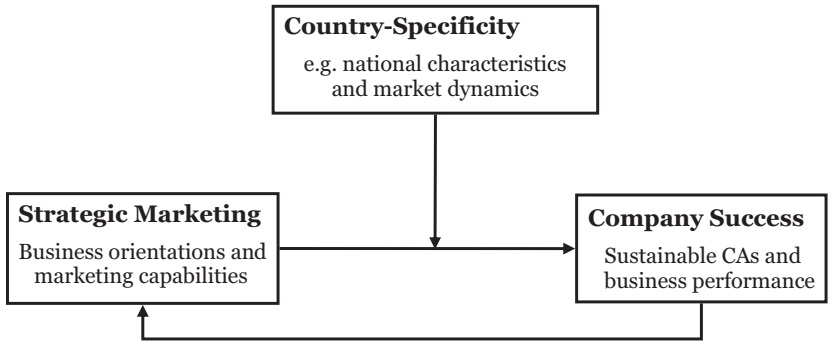

Figure 1 Study framework

CONCEPTUAL MODEL AND HYPOTHESES

The results of certain previous researches are considered in the following, as the hypotheses are developed. Additionally, we provide a brief overview for each of the present study's constructs. All four explanatory constructs of the study are clearly intangible and, thus, cannot be purchased from the marketplace. Despite their intangible nature, benefits to the firm can be considered similar to those provided by tangible resources, such as physical assets (Rust, Ambler, Carpenter, Kumar & Srivastava 2004). Three dependent variables are included in this study.

Market orientation

A frequently used definition from Narver and Slater (1990) conceptualizes that market orientation comprises customer orientation, competitor orientation and inter-functional coordination, with long-term and profitability focuses. Hunt and Morgan (1995) further stress the importance of focus on both current and potential markets. Market orientation is inherently a learning orientation (Slater & Narver 1995), which can be divided into responsive (market-driven) and proactive (market-driving) market orientations, wherein the former attempts to discover, understand and satisfy expressed customer needs, while the latter also latent needs (Narver, Slater & MacLachlan 2004). Due to recent changes in the business environment, most industries must continuously focus on customer needs and market opportunities (Walker, Mullins, Boyd & Larréché 2006; Menguc & Auh 2006). Customers also seek innovative suppliers that offer new value concepts or total solution packages (Berghman *et al.* 2006).

Thus, firms that provide superior customer value are in strategic competitive positions. We believe that these considerations apply to companies in "engineering countries" in particular, and for this reason, include market orientation in our analytic framework.

It is argued that market orientation facilitates clarified focus and vision in terms of an organization's strategy, which consequently leads to superior performance (Kohli & Jaworski 1990). Although the findings on this relationship are inconclusive (e.g. Tuominen *et al.* 2005), several empirical studies (e.g., Narver & Slater 1990; Jaworski & Kohli 1993; Han *et al.* 1998; Matsuno *et al.* 2002) with relatively consistent results provide support—both in absolute and relative terms—to the existence of a positive relationship between the constructs. Further, resources that enable value creation, such as market orientation, are potential sources of competitive advantage that require high barriers for competitors to match (Fahy & Smithee 1999; Noble, Sinha & Kumar 2002). The following set of hypotheses is thus developed:

> $\boldsymbol{H_{1a,\,1b,\,1c}}$*: Market orientation has a positive relationship to market performance (*$\boldsymbol{H_{1a}}$*), financial performance (*$\boldsymbol{H_{1b}}$*) and (sustainable) competitive advantage (*$\boldsymbol{H_{1c}}$*).*

Innovation orientation

A key component of success for industrial firms is the extent of their innovativeness, which relates to the firm's capacity to engage in innovation; introduction of new processes, products, or ideas in the organization and market (Hult *et al.* 2004). Innovation also calls for innovation orientation, which refers to "the knowledge structure that permits the recognition of market dynamism and then provides a knowledge template to develop the required process and to build a firm's dynamic capabilities" (Siguaw *et al.* 2006). As a result, firms with high innovation orientation differentiate themselves primarily by the degree of innovation in their offerings (Hooley & Greenley 2005). Moreover, Howard (1983) argues that process innovation is a prerequisite for successful product innovation. Recently, Siguaw *et al.* (2006) further argue that a firm's long-term success likely relies more on overall firm-level innovation orientation than on specific innovations. Due to high R&D investments and the inherent importance of innovativeness in "engineering countries," innovation orientation seems to support its place within the framework of this study.

Hult *et al.* (2004) argue that innovative activities are generally important to the success of the industrial firm, while innovation orientation is

evidenced to have a positive relationship with competitive advantage and related isolation mechanisms (Hooley & Greenley 2005; Siguaw, *et al.* 2006; Weerawardena & O'Cass 2004), new-product success superiority (Narver *et al.* 2004) and financial performance (Hooley *et al.* 2005). Consistent findings show that companies that innovate are in better positions than those that do not (Jin, Hewitt-Dundas & Thompson 2004; Han *et al.* 1998; Matsuno *et al.* 2002). Moreover, due to the complex interplay of resources that is required for effective innovation, a position based on innovation is likely to enjoy a high degree of defensibility (Hooley & Greenley 2005). It is, therefore, hypothesized that:

> $\boldsymbol{H_{2a,\,2b,\,2c}}$*: Innovation orientation has a positive relationship to market performance (*$\boldsymbol{H_{2a}}$*), financial performance (*$\boldsymbol{H_{2b}}$*) and (sustainable) competitive advantage (*$\boldsymbol{H_{2c}}$*).*

Marketing capabilities

Marketing capabilities refer to a firm's ability to use its resources in competitively advantageous ways (Barney 1991; Wernerfelt 1984). Further, Möller (2006) suggests that an individual organization's value creation is based on its collection of capabilities or competencies. Several categorizations for market-related and marketing capabilities are advanced (e.g. Vorhies & Morgan 2005; Möller & Törrönen 2003; Day 2000). In his seminal article on market-driven capabilities, Day (1994) suggests there are three kinds of capabilities in every firm—depending on orientation and focus of the defining processes—that potentially provide competitive advantages: outside-in (an external emphasis), inside-out (an internal emphasis) and spanning capabilities. His framework proposes that organizations can become more market-oriented by identifying and building market-based capabilities. We incorporate outside-in and inside-out capabilities in the present study and, thus, consider the extremes along the capability continuum.

According to Day (1994), outside-in capabilities connect the processes that define other organizational capabilities to the external environment and enable businesses to compete by anticipating market requirements ahead of competitors, thus creating durable relationships with customers and other stakeholders. Outside-in capabilities are necessary, for example, in market sensing and customer-relationship building activities (Day 1994). Further, as externally focused capabilities, they involve changes to the offering itself and customer delivery, or a better understanding and exploitation of the firm's product markets (Blois & Ramirez 2006). Without

these capabilities, on the other hand, firms are likely to become out of touch with their markets, and lose their ability to react or innovate (Berghman *et al.* 2006). Inside-out capabilities, for their part, are highly emphasized internally. They are developed or acquired mainly to enhance the firm's operational performance and unfold as to what the firm is good at and capable of doing (Blois & Ramirez 2006). These may relate to, among others, technology development, organizational processes and human resources management, and thus, increase efficiencies in the delivery process and reduce operating costs (Day 1994).

Hunt and Morgan (1995) argue that "a comparative advantage in resources … can translate into a position of competitive advantage in the marketplace and superior financial performance." Moreover, the development of marketing competence is seen to increase a focal firm's bargaining power and reduce its dependence on industrial customers (Zerbini *et al.* 2007). Day (1994) further argues that mastery of distinctive capabilities and performance superiority are directly connected, which is supported by Varadarajan and Jayachandran (1999) and Vorhies (1998). Additionally, Vorhies and Morgan (2005), Nath, Nachiappan and Ramanathan (2010) and Tuominen *et al.* (2005) find a positive association between inside-out capabilities and performance superiority. These arguments lead us to hypothesize that:

> $\boldsymbol{H_{3a,\,3b,\,3c}}$*: Inside-out capabilities have positive relationships to market performance (*$\boldsymbol{H_{3a}}$*), financial performance (*$\boldsymbol{H_{3b}}$*) and (sustainable) competitive advantage (*$\boldsymbol{H_{3c}}$*).*

Moreover, according to Hooley *et al.* (2005) and Nath *et al.* (2010), outside-in capabilities statistically relate significantly positively to market performance, which positively relates to a firm's financial performance. Tuominen *et al.* (2005), for their part, empirically verify a positive relationship between outside-in capabilities and innovativeness—a near proxy for innovation orientation—which further drives performance. Thus, we hypothesize that:

> $\boldsymbol{H_{4a,\,4b,\,4c}}$*: Outside-in capabilities have positive relationships to market performance (*$\boldsymbol{H_{4a}}$*), financial performance (*$\boldsymbol{H_{4b}}$*) and (sustainable) competitive advantage (*$\boldsymbol{H_{4c}}$*).*

Sustainable competitive advantage

Sustainable advantages are often achieved through a combination of the strategic insight and valuable, rare, imperfectly imitable and non-substitutable resources required to implement a chosen strategy. In his classic article, Barney (1991) states that sustainable competitive advantages cannot be bought from the marketplace. Instead, sustainability of competitive advantage is said to be achieved through the deployment of isolating mechanisms that protect the advantage, such as causal ambiguity (Lippman & Rumelt 1982), resource interconnectedness, and path dependency (Fahy & Smithee 1999; Hunt & Morgan 1995). Sustainability occurs only when a firm's comparative resource advantages continue to yield a competitive advantage position despite competitor actions (Hunt & Morgan 1995). To date, sources of competitive advantage in marketing are not sufficiently clarified (Srivastava *et al.* 1998; Morgan *et al.* 2002). Thus, including competitive advantage to our framework as a second, non-financial, intermediate performance construct is relevant because it then better captures the potential mechanisms through which orientations and capabilities affect business performance.

In order to achieve superior market performance and above-average returns, firms must develop and sustain competitive advantages (Slater & Narver 1994; Fahy & Smithee 1999). For example, a company that has cost leadership can sell its offerings at low prices without sacrificing profitability. Isolating mechanisms, such as causal ambiguity, also create barriers to imitation that further increase the business performance impact of competitive advantages (Fahy & Smithee 1999). Empirically, Hult and Ketchen (2001) show that positional advantage positively affects performance. Thus, we hypothesize the following:

> $\boldsymbol{H_{5a,\,5b}}$*: (Sustainable) competitive advantage has a positive relationship to market performance (*$\boldsymbol{H_{5a}}$*) and financial performance (*$\boldsymbol{H_{5b}}$*).*

Business performance

Performance outcomes result from market successes or when market positions are achieved (Day & Wensley 1988) and fundamentally change over time (Rust *et al.* 2004). Therefore, performance measures should capture business performance at both current and future levels. More explicitly, a broad and well-balanced performance conceptualization, including financial and non-financial measures, will help marketers to fully understand the performance consequences of their strategies (Varadarajan

& Jayachandran 1999). Thus, we incorporate both financial and market performance entities in the present study. Here, the term "business performance" is used as a general performance construct to capture both the market and financial aspects of performance. Financial performance literally refers to financial measures, such as profit margin and return on investment, whereas market performance implies measures such as market share and sales volume.

Every firm should, in principle, seek profitable growth over maximum sales alone. For example, PIMS studies find that a strongly positive link exists between market share and ROI measures (Buzzell & Gale 1987). Similar results are achieved in many other studies as well (e.g., Srivastava *et al.* 1998; Hooley *et al.* 2005). Further, Hooley *et al.* (2001) argue that superior market performance likely results in superior financial performance. Thus, we hypothesize that:

***H*$_6$**: *Market performance has a positive relationship to financial performance.*

Contextual moderation

The above hypotheses are tested within a full three-country sample (Austria, Finland and Germany). The robustness of the notion "engineering country," i.e. the homogeneity of the countries in terms of the generalizability of results across the countries, is also tested within the three individual countries. We start with the hypothesis that engineering orientation is a dominant characteristic as a contextual moderator and, thus, cross-country sensitivity in the examined relationships is not present. Following this line of reasoning, we hypothesize that:

***H*$_7$**: *The results of this study are invariant among the three individual "engineering countries."*

In the case Hypothesis 7 is not supported, we examine significant differences between the countries.

METHODOLOGY

To test the literature-based hypotheses, an empirical study is performed. The data used in this study is gathered by questionnaire during the 2002-2003 period, which surveys small, medium and large firms in business and consumer products and services in Austria, Finland and Germany. The data

set, as is this study, is part of the worldwide Marketing in the 21st Century Program, coordinated by Aston Business School in the UK. The sampling frame is supplied by national research institutes, while sampling is undertaken based on quotas for firm size, industry and market type.

A total of 976 usable responses are received: 249 from Austria, 327 from Finland and 400 from Germany. The response rate in each of the countries is greater than 20%. Companies in B-to-B goods or B-to-B services sector total 57.9% of the sample. We do not find significant differences in means between early and late respondents on the scales studied, which indicates that non-response bias is not likely a problem (Armstrong & Overton 1977). All measurement items are measured on subjective five- or seven-point Likert-type scales, mainly related to a company's primary competitors. This makes sense as, e.g., due to varying competitive characteristics or cultural issues, certain metrics in one industry or country may be interpreted as very good, while only moderate or even poor in others (Vorhies & Morgan 2003). Further, subjective measures are more flexible than objective ones in capturing complex dimensions of performance (González-Benito & González-Benito 2005).

Based on a review of the literature, we use existing scales from prior research, with two exceptions: innovation orientation and competitive advantage. As proposed by Narver and Slater (1990), 14 scale items are used to measure market orientation. While organizational innovation is extensively researched in recent years (e.g., Hurley & Hult 1998; Han *et al.* 1998; Siguaw *et al.* 2006), high-quality scales for innovation orientation are not yet available because of rather unsystematic empirical explorations of the degree of innovativeness and related concepts. Therefore, in the present study, items for the innovation orientation construct are developed for the research questions at hand. Following a review of the literature in marketing and organizational behavior, as well as in-depth interviews with marketing managers in the UK, a number of potential items are generated. This item pool is then refined through the expert opinions of marketing scholars in several European countries and, following analysis of the pilot data, a seminal questionnaire is further refined. The four-item scales for inside-out capabilities and outside-in capabilities are previously validated by Greenley, Hooley and Rudd (2005).

Dependent latent variables are influenced by explanatory variables in the structural model, either directly or indirectly (Kline 2005). Items for competitive advantage are also developed for the purposes of this study. Extensive literature review of the resource-based view of firms is performed to operationalize how competitive advantage is achieved and protected in companies. High scores on the competitive advantage scale suggest that a

firm achieves superior market advantages of which competitors are unable to duplicate in terms of the firm's innovations and distinctive capabilities. For performance constructs (market performance and financial performance), five frequently used and validated (e.g., Hooley *et al.* 2005) items are selected for use.

When applying statistical methods to the data, descriptive frequency analysis (in Appendix A) is first conducted to determine to what extent results can be generalized. Subsequently, confirmatory factor analysis (CFA) is applied. Analysis is conducted as if the answers are given at continuous scales, although the scales are essentially ordinal. All the constructs are treated as reflective. In terms of inside-out capabilities, we consider general management capability and the corresponding corporate culture to set the scene for several distinct capabilities. For others, the reflective nature of the constructs is more or less evident. Since our factor structure is based on previous studies, it is consistent to use CFA in the model's development and assessment. Additionally, exploratory factor analysis (EFA) is used to test the discriminant validity of the model. Structural equation modeling (SEM) is finally used to specify which latent, reflective constructs directly or indirectly influence changes in the values of other latent constructs in the model (Kline 2005). Potential contextual differences are tested by multiple-group SEM.

ANALYSIS AND RESULTS

Appendix A presents the distribution of companies in the full sample and in each sub-sample, based on industry type, size, market characteristics and market position. The distributions are visibly alike. Thus, results between the sub-samples are assumed to be unbiased and comparable.

For scale construction and validation, confirmatory factor analysis (CFA) is used. All three countries are included in the analysis. Approximately half of the initial items are excluded from the model to achieve the appropriate levels of unidimensionality (thresholds for both loadings and communalities are set at 0.40). See Appendix B for a final, reduced list of items in each construct. The fit indices of the model are then found acceptable: root mean square of approximation (RMSEA) = 0.048; goodness of fit index (GFI) = 0.95; comparative fit index (CFI) = 0.98; and non-normed fit index (NNFI) = 0.97. Additionally, correlations between the constructs in Table 1 are reasonably low and EFA offers strong support to the model's validity. Further, values for composite reliabilities and average variances extracted are almost solely above the respective thresholds of 0.6

and 0.5, as recommended by Diamantopoulos and Siguaw (2000). Thus, a set of reliable and valid metrics for the constructs is provided (Kline 2005).

Table 1 Construct means, standard deviations, reliabilities and correlations

Construct	Mean	S.D.	CR	AVE	1	2	3	4	5	6	7
1. Market Orientation	5.39	0.96	0.85	0.54	1.00						
2. Innovation Orientation	3.36	0.85	0.89	0.67	0.41	1.00					
3. Inside-out Capabilities	3.45	0.64	0.75	0.42	0.34	0.52	1.00				
4. Outside-in Capabilities	3.87	0.74	0.79	0.66	0.29	0.35	0.47	1.00			
5. Competitive Advantage	3.24	1.03	0.75	0.60	0.24	0.41	0.21	0.22	1.00		
6. Market Performance	3.37	0.88	0.75	0.60	0.10	0.31	0.37	0.20	0.18	1.00	
7. Financial Performance	3.40	0.89	0.88	0.71	0.13	0.27	0.39	0.19	0.22	0.53	1.00

S.D. = standard deviation; CR = composite reliability; AVE = average variance extracted

The present study's hypotheses are tested simultaneously using LISREL 8.80 and the final model is presented in Figure 2. Covariance matrix and maximum likelihood estimation procedure are used in conducting structural equation modeling. The overall model fit indices refer to a good general fit between the model and the data. The previously developed model is also applied individually to all three sample countries. Fit indices and correlations of the models indicate that they can well be used to test the national context's moderating effect on performance. Fit indices for each sample country are available in Appendix C.

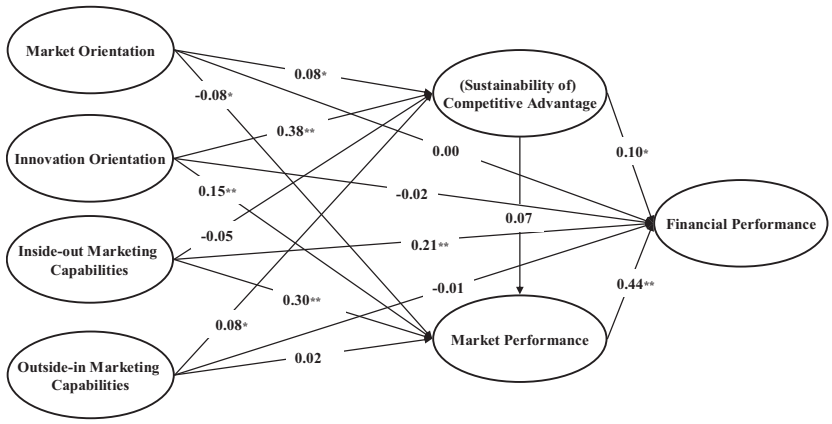

Figure 2 Structural model with standardized path estimates (* $p < 0.05$; ** $p < 0.01$)

Model Fit: $\chi^2(188)=604.72$; $p<0.0001$, RMSEA = 0.048, CFI = 0.98, NNFI = 0.97 and GFI = 0.95.

As seen in Figure 2, market orientation has a significant, but negative relationship to market performance (β=-0.08), and thus does not provide support for H1a. Also, its relationship with financial performance (β=0.00) does not support H1b, whereas H1c—market orientation's positive link to competitive advantage—is moderately supported (β=0.08). Innovation orientation positively relates to market performance (β=0.15) and competitive advantage (β=0.38), which support H2a and H2c, respectively. However, a positive direct link between innovation orientation and financial performance (β=-0.02) is not found, and therefore, H2b is not supported. Strong indications for the positive effect of inside-out capabilities and market performance (β=0.30) and financial performance (β=0.21) are identified to support H3a and H3b, respectively. However, results do not support H3c, inside-out capabilities' positive relation to competitive advantage (β=-0.05). Outside-in capabilities do not positively relate to market performance (β=0.02) and financial performance (β=-0.01) and thus, support for H4a and H4b is not achieved. Instead, a positive relationship to competitive advantage is identified (β=0.08) and, therefore, H4c is supported. Competitive advantage is not statistically significant in its positive relation to market performance, (β=0.07) but only with financial performance (β=0.10). Therefore, H5a is not supported, while H5b is supported. Finally, very strong support is provided for the positive relationship between market performance and financial performance. Thus, H6 is supported (β=0.44). The explanatory power (R^2) of the model is 33%.

In order to test the robustness of the results, we examine the model by carrying out cross-country comparisons. The results of country comparisons are not severely biased since problematic group dominance (Kline 2005) is not in place for any of the three countries. Fortunately, equalities of factor structures among engineering countries are supported, thus, further justifying national comparisons. Regression coefficient matrices are found to be statistically invariant at the .05 confidence level between Austria and Germany (p=0.10), but to vary between Finland and Austria (p=0.034) and between Finland and Germany (p=0.0021). In addition to hypotheses results, Table 2 presents path coefficients for each sample country and comparison of their statistical differences. Among the individual engineering countries, all but one statistically significant relationship is positive, and therefore, coherent with the underlying theory. The comparison part of the table can be interpreted so that, for example, the regression coefficient between market orientation and market performance is statistically significant (at confidence level 0.05) in that it is less negative in Austria than in Finland. Direct comparisons between

regression coefficients can be made since the models are similar across all sample countries.

Table 2 Results summary

Hypothesis	Path	Full Sample	Support	Austria	Finland	Germany	FIN vs. AUT	FIN vs. GER	AUT vs. GER
H1a (+)	MO → MP	-0.08*	Not Supported	-0.04	-0.24**	0.04	AUT	GER	
H1b (+)	MO → FP	0.00	Not Supported	-0.12	-0.02	0.03			
H1c (+)	MO → CA	0.08*	Supported	0.09	0.03	-0.04			
H2a (+)	Inno → MP	0.15**	Supported	0.06	0.07	0.18*		GER	GER
H2b (+)	Inno → FP	-0.02	Not Supported	0.12	-0.11	-0.02			
H2c (+)	Inno → CA	0.38**	Supported	0.40**	0.24*	0.40**			
H3a (+)	I/O → MP	0.30**	Supported	0.20*	0.73**	0.29**			
H3b (+)	I/O → FP	0.21**	Supported	0.24*	0.38**	0.09		FIN	AUT
H3c (+)	I/O → CA	-0.05	Not Supported	-0.11	0.38**	-0.05	FIN	FIN	
H4a (+)	O/I → MP	0.02	Not Supported	0.23**	-0.18	-0.15	AUT		AUT
H4b (+)	O/I → FP	-0.01	Not Supported	-0.12	-0.01	0.08			
H4c (+)	O/I → CA	0.08*	Supported	0.21**	-0.12	0.11	AUT		AUT
H5a (+)	CA → MP	0.07	Not Supported	0.08	-0.17	0.14*		GER	GER
H5b (+)	CA → FP	0.10*	Supported	0.12	0.03	0.08			
H6 (+)	MP → FP	0.44**	Supported	0.35**	0.16	0.65**	AUT	GER	

* p<0.05 (2-tailed)
**p<0.01 (2-tailed)

MO = Market Orientation, Inno = Innovation Orientation, I/O = Inside-out Capabilities, O/I = Outside-in Capabilities; CA = Competitive Advantage, MP = Market Performance, FP = Financial Performance

Table 3 presents total effects for the study constructs on financial performance. Full-sample results indicate that only inside-out capabilities and innovation orientation have considerable effects on financial performance. Germany is not quite as poor as Finland and Austria in making use of market orientation and outside-in capabilities, while Austria is most effective in terms of innovation orientation and Finland is the best in benefiting from inside-out capabilities. In total, Germany appears to be the most effective "strategic marketer" among the engineering countries studied, while Finland the least effective. This can also be identified from Table 3. Business environmental differences seem to influence the impact of strategic marketing factors (e.g. Hooley *et al.* 2001, Slater & Narver 1994), and hypothesis H7 is thereby not supported. Therefore, global companies are forced to take environmental differences, such as customer needs, into serious consideration.

Table 3 Total effects on financial performance in engineering countries

Construct	All countries	Austria	Finland	Germany
Market Orientation	-0.03	-0.12	-0.06	0.05
Innovation Orientation	0.10	0.20	-0.09	0.16
Inside-out Capabilities	0.34	0.29	0.49	0.27
Outside-in Capabilities	0.01	-0.01	-0.04	0.01
Total Effects Combined	**0.42**	**0.36**	**0.30**	**0.49**

DISCUSSION AND CONCLUSIONS

Theoretical implications

This study, as performance studies in general, contributes to both managerial decision-making and academic discussion by offering important empirical evidence about key company success factors. The results of such studies guide what to measure, thus, improving the use of truly significant metrics in marketing performance assessment (Morgan *et al.* 2002). Examination of the context-dependence of the results provides further contribution as to which issues are of special importance to international companies. Market differences must be accounted for, even in such relatively homogenous countries, from a global point of view, as Austria, Finland and Germany.

Without a doubt, the results of our quantitative analysis are the most important contribution of this study. As the results only support half of the literature-based hypotheses (8 of 16), a number of interesting contradictions and new important details about the influence of strategic marketing elements on company performance can be identified. This is despite the fact that results from the PIMS studies—positive relationship between market and financial performances—are strongly supported. Comparison of the "engineering countries" provides some entirely new results as well. Considering our characterization of an "engineering country," the findings can be generalized— naturally, with caution—to, among others, countries like Sweden and Japan.

The key contradiction of the study is the low impact of market orientation on financial performance, which is not assumed, as several previous studies propose the link to be strongly positive. Also, this result is surprising in

light of a recent, general development of increased customer focus within firms (cf. Walker *et al.* 2006). Nevertheless, as proposed by Dierickx and Cool (1989), it is characteristic to market orientation that it also contributes to the accumulation of other organizational resources and increases their value. In the context of this study, then, a potential explanation is that the influence of market orientation is channeled through outside-in capabilities. Theoretically, one can conceive these capabilities to be manifestations of market orientation. That is, market orientation can be their antecedent. Moreover, market orientation and innovation orientation are likely to affect firm performance over longer term than inside-out capabilities which essentially increase the efficiency of the firm's processes and, thus, improve short-term performance. These propositions require further research.

Another interesting result is the weak relationship found between outside-in marketing capabilities and the performance measures compared to the strong role of inside-out capabilities. One interpretation is that, in well-developed markets, customer-relating skills are a necessity that does not distinguish between high- or low-performing companies. What seem crucial are firm innovativeness and the operational efficiency, measured by inside-out capabilities. The latter are identified as the most effective factors on financial performance in each sample country. Results should not, however, be taken as given since prior evidence (e.g., Nath *et al.* 2010) suggests that efficient integration of marketing and operational capabilities leads to improved organizational performance, while operational success is a prerequisite for marketing success. Considering this, the results of the present study are understandable, as technological innovations and operational efficiencies arguably receive more managerial focus than marketing in "engineering countries." Despite having inside-out capabilities that effectively drive performance, firms in these countries could now start paying more attention to the quality of their outside-in capabilities, in order to also reap their potential performance outcomes.

In total, the outcomes of this study are not unheard of; for example, Tuominen *et al.* (2005) find quite similar relationships in their study of companies in Finland and New Zealand. Further, the results are in line with Fahy *et al.* (2000), who suggest that marketing capabilities relate to performance with a strongly positive association. In terms of business environmental sensitivity, the present study's findings support the outcomes of, among others, Manu (1992) and Song and Parry (1997).

What is also notable is that several statistically significant deviations in structural path magnitudes among the sample countries are identified. The total effect of strategic marketing on firm financial performance is also

found to be sensitive to countries under study; strongest in Germany while weakest in Finland. Thus, our critical test suggests that the results of the present study cannot be directly generalized into individual countries as sensitivity by sample country is identified even among highly homogenous countries. While it seems clear that different characteristics of country-specific business environments influence the effectiveness of strategic marketing factors, one cannot say for certain whether successes in these countries are caused predominantly by superior strategic marketing practices or by favorable business environments, and whether e.g., different orientations are causes of superior performance or its outcomes (cf. Avlonitis & Gounaris 1997). On a theoretical level, the country specificity of our results is a major finding that challenges the widely assumed generality of the strategic marketing-performance relationship and provides additional criticism of cross-sectional analysis.

Managerial implications

This study provides new insights as to which issues companies should concentrate on in order to improve their effectiveness in terms of strategic marketing. However, good strategy requires effective implementation in order to result in superior business performance (e.g., Vorhies & Morgan 2003). Actually, this may be the underlying key to the strongly positive relationships between inside-out capabilities and business performance we identify. Inside-out capabilities are most closely related to strategy implementation of all the constructs used in this study.

How should managers then conduct their strategic marketing to achieve the best possible outcomes as a result? While others might try to learn from Finnish companies to develop effective inside-out capabilities, Austrian and German companies provide benchmark opportunities as to innovation orientation. In general, in light of the results, Germany is the country from which best practices should be modeled, although there seems to be considerable areas of improvement in terms of outside-in capabilities, market orientation and innovation orientation in all sample countries. This indicates that customers and market characteristics remain inadequately addressed in engineering country companies. Thus, it is reasonable to suggest that, in general, more marketing training should be given to engineers in order to improve their regard and mindsets for marketing. Although the current focus is changing from features offerings to customer needs fulfillment, substantial work remains undone.

A market-oriented culture likely should be complemented by a spirit of entrepreneurship and an appropriate organizational climate, as suggested by Slater and Narver (1995). Additionally, management should note whether their business logic is proactive or reactive, and ensure that a match exists between the type of business logic adopted and the type of market orientation emphasized (Tuominen *et al.* 2004). Moreover, the importance of collaboration between marketing and R&D services can be emphasized, since new products are more successful if based on both technology use and consumer information (Gotteland & Boulé 2006; Siguaw *et al.* 2006). Organizations can also learn from markets and develop effective strategies to disseminate the acquired knowledge, such as fine-tuned CRM systems, since such learning can indeed be a source of competitive advantage (e.g., Slater & Narver 1995). We propose that companies also develop a clear understanding of their capabilities and competencies, especially in terms of customer value-addition. Although mere possession of superior resources does not guarantee competitive advantage for a firm (Nath *et al.* 2010), combining this understanding of competencies with customer insight is suggested to be the basis for growth and profitability (Ritter 2006).

Finally, for any strategy to be sustainable, it must be based on firm resources and capabilities. Further, strategic marketing investments and activities reduce business risks (Rust *et al.* 2004). Thus, in principle, human resources developments are worthwhile efforts. Nevertheless, developing distinctive capabilities binds considerable amount of organizational resources, and thus, involves a trade-off in terms of which capabilities to develop (Weerawardena & O'Cass 2004). Moreover, as one of the most significant management challenges lies in balancing devotion to the exploration of new opportunities and exploitation of existing capabilities, how should firms then divide their investments in capabilities? O'Reilly III and Tushman (2004) argue that most successful companies master refining their current offerings, but experience trouble when pioneering radically new ones. Thus, are inside-out capabilities a necessary, but insufficient condition for business success? Our results do not shed light on this issue, but since inside-out capabilities are highly effective, firms in engineering-like countries could now place strong emphasis on trying to enhance the quality and effectiveness of their outside-in capabilities, too. Employees should also be encouraged to adopt innovation-oriented work methods. Relying on O'Reilly III and Tushman (2004), these changes could result in enduring performance superiority in terms of both market-based and financial metrics. Naturally, as firms engage in different kinds of collaboration and outsourcing activities, it may not be necessary to

develop required knowledge bases and resources internally. Whatever a firm's competencies, the managerial challenge is to translate them into relevant customer arguments (Ritter 2006).

Limitations and avenues for further research

While cross-sectional data does not capture the sequential, temporal order of causality or the dynamics that the models in this study conceptually assume, "a piece of property in its distant past may be now providing it a unique source of comparative advantage and influencing its size, scope, or profitability" (Hunt & Morgan 1995). For example, Gilbert and Bower (2002) argue that the total value of innovation is not always immediately apparent, but rather only realized over time and after competencies are built and actualized; and the same applies to market orientation (Cadogan, Diamantopoulos & Siguaw 2002). Additionally, the analysis of the present study is based on managerial perception data, which may have an effect on the results obtained (e.g., Jaworski & Kohli 1993; Barney 1991; Neely 2002) due to the subjective, rather than objective nature of the data. It might be especially challenging for managers to self-report the levels of certain organizational determinants or their relative advantages over a firm's primary competitors.

Further, principles of marginal utility theorem may somewhat bias the magnitudes of path coefficients; for example, relationships between capabilities and business performance are likely to be non-monotonic as the higher the current level, the harder they are to improve. Thus, the performance impact of constructs with high average points—in this case, market orientation and outside-in capabilities—is somewhat downward biased, and vice versa. An awareness of the potential for the significant variance in performance, market position and profitability of firms from one year to another is yet another issue to consider. Also, non-rational activities sometimes cause success, so that a high-performing product or company may have little to do with management effectiveness.

Since factors under examination in this study naturally are not entirely distinctive—although considerable multicollinearity is not identified—taking the results as-is may lead to the fallacy of oversimplification (cf. Vorhies & Morgan 2005). For example, Day (1994) argues that market-driven organizations have superior market-sensing, customer-linking and channel-bonding (i.e., outside-in marketing) capabilities, as empirically supported by Hooley *et al.* (2005). Therefore, our results may not suggest that highly developed inside-out capabilities alone are a sufficient condition

for effective long-term business performance. Instead, its role as a complementary factor to other performance-driven constructs, such as firm orientation and resources, may be considerable. Other path coefficient results may also be interpreted accordingly, so that e.g., organizations without the capacity to innovate may invest time and resources in studying markets, but remain unable to translate this knowledge into practice (Hult *et al.* 2004).

To outline some potential avenues for further research, it is of great interest to conduct a study wherein the data used for the present study is used as reference data to acquire new information, to aid in the application of a longitudinal research setting. This will help, for example, in finding sources of sustainable competitive advantages and to potentially shed light on the longer-term success factors that affect business performance. A new data set is welcomed as well, because the factors in this study are deeply imbedded and slowly evolving in companies (Winter 2003). Although statistical models will, thus, become more complex, including one or two operational variables in the research setting will also help to clarify the relative effect of strategic marketing issues. Moreover, among others, learning, entrepreneurial and strategic orientations and spanning capabilities—those left outside the scope of this paper in order to keep the analysis as interpretable as possible—can be employed. Additionally, by exploring the potential moderating effects on business performance of strategic marketing more comprehensively, empirical studies with focus on result sensitivity with regard to industry type, market position and company size, among others, will be both interesting and relevant. Finally, testing the generalizability of the results of the present study will now be tempting; e.g., Swedish or Japanese data can be used, as they are also counties that benefit from high R&D investments and propensity to innovate.

Appendix A Firm characteristics in the research sample

	Austria		Germany		Finland		Full Sample	
Industry Type	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Business Goods	61	24.50	131	32.75	144	44.04	336	34.43
Consumer Goods	63	25.30	108	27.00	107	32.72	278	28.48
Business Services	49	19.68	117	29.25	63	19.27	229	23.46
Consumer Services	39	15.66	42	10.50	6	1.83	87	8.91
Other	37	14.86	2	0.50	7	2.14	46	4.71

	Austria		Germany		Finland		Full Sample	
Number of Employees	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Fewer than 20	22	8.84	22	5.50	12	3.67	56	5.74
20-99	119	47.79	126	31.50	147	44.95	392	40.16
100-999	86	34.54	174	43.50	125	38.23	385	39.45
More than 1000	22	8.84	78	19.50	43	13.15	143	14.65

	Austria		Germany		Finland		Full Sample	
Market Characteristics	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Emerging	21	8.43	20	5.00	19	5.81	60	6.15
Growing	139	55.82	192	48.00	162	49.54	493	50.51
Mature	60	24.10	94	23.50	128	39.14	282	28.89
Declining	29	11.65	94	23.50	18	5.50	141	14.45

	Austria		Germany		Finland		Full Sample	
Market Position	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Market/Niche Leader	104	41.77	166	41.50	149	45.57	419	42.93
Market/Niche Challenger	98	39.36	151	37.75	138	42.20	387	39.65
Market/Niche Follower	47	18.88	83	20.75	40	12.23	170	17.42

Appendix B Final measurement items for each construct

Market Orientation[a]	1.	Our objectives and strategies are driven by the creation of customer satisfaction.
	2.	Competitive strategies are based on understanding customer needs.
	3.	Business functions are integrated to serve market needs.
	4.	Business strategies are driven by increasing value for customers.
	5.	Our managers understand how employees can contribute to value for customers.
Innovation Orientation[b]	1.	We are more innovative than our competitors in deciding what methods to use in achieving our targets and objectives.
	2.	We are more innovative than our competitors in initiating new procedures or systems.
	3.	We are more innovative than our competitors in developing new ways of achieving our targets and objectives.
	4.	We are more innovative than our competitors in initiating changes in the job content and work methods of our staff.
Inside-out Capabilities[c]	1.	Strong financial management.
	2.	Effective human resource management.
	3.	Good operations management expertise.
	4.	Good marketing management ability.
Outside-in Capabilities[c]	1.	Good at creating relationships with key customers or customer groups.
	2.	Good at maintaining and enhancing relationships with key customers.
Competitive Advantage[b]	1.	Our competitive advantage is difficult for competitors to copy because it uses resources only we have access to.
	2.	It took time to build our competitive advantage and competitors would find it time- consuming to follow a similar route.
Market Performance[d]	1.	Sales volume achieved relative to main competitors.
	2.	Market share achieved relative to main competitors.
Financial Performance[d]	1.	Profit margins achieved relative to main competitors.
	2.	Return on investment relative to main competitors.
	3.	Overall profit margins achieved relative to main competitors.

[a] Seven-point scale ranging from 1 = "not at all" to 7 = "to an extreme extent"

[b] Five-point scale ranging from 1 = "strongly disagree" to 5 = "strongly agree"

[c] Five-point scale ranging from 1 = "strong competitor's advantage" to 5 = "our strong advantage"

[d] Five-point scale ranging from 1 = "much worse" to 5 = "much better"

Appendix C SEM Goodness of model fit indices (df=188)

Country	Chi^2	RMSEA	CFI	NNFI	GFI
Austria	371.61	0.063	0.95	0.94	0.88
Finland	436.95	0.064	0.96	0.95	0.89
Germany	393.69	0.052	0.97	0.97	0.92

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Essay II

Matti Jaakkola, Johanna Frösén, Henrikki Tikkanen, Jaakko Aspara, Antti Vassinen and Petri Parvinen

Translating market orientation to superior business performance: The mediating role of core business process capabilities.

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Translating market orientation to superior business performance: The mediating role of core business process capabilities.

Abstract

The relationship between market orientation (MO) and business performance is demonstrated in the literature in different settings and contexts. However, the organizational mechanism by which MO is translated to business performance has received scant attention. First, we develop and empirically test an integrated framework where capabilities in three core market-related business processes (i.e., product development management, customer relationship management and supply chain management) are examined as potential mediators in the MO-performance relationship. Subsequently, we investigate whether the importance of these process capabilities, as mediators, depends on environmental dynamics. With a moderated mediation model on survey data comprising 480 firms, we find that the business process capabilities fully mediate the performance effects of MO. In particular, process capabilities in product development management and customer relationship management play a central role in realizing the potential value of MO. Finally, we find that the role of process capabilities as mediators is significantly moderated by the levels of market and technological turbulence.

Key words:

Market orientation; Marketing capability; Business process; Performance; Environmental turbulence

1. Introduction

Since its introduction in the early 1990s (Kohli and Jaworski 1990; Narver and Slater 1990), the relationship between market orientation (MO) and business performance has, in various incarnations, been a recurring research theme (e.g., Menguc and Auh 2006; Murray, Gao and Kotabe 2011; van Raaij and Stoelhorst 2008). However, while most studies conclude that MO affects performance positively (For meta-analyses, see Cano, Carrillat and Jaramillo 2004; Kirca, Jayachandran and Bearden 2005) few studies (e.g., Langerak, Hultink and Robben 2007; Min, Mentzer and Ladd 2007; Rapp, Trainor and Agnihotri 2010) consider the actual organizational mechanisms by which MO influences performance. Consequently, the operational processes through which MO translates to superior business performance remain somewhat poorly understood (Hult, Ketchen and Slater 2005; Ketchen, Hult and Slater 2007). This is a problem for managers, since neglecting the mechanism by which MO affects performance can prevent firms from realizing the true potential of their MO (See Menguc and Auh 2006).

Although recently, there is increasing academic interest in particular organizational capabilities that mediate the relationship between MO and business performance (e.g., Min *et al.* 2007; Murray *et al.* 2011; Olavarrieta and Friedmann 2008), much remains unresolved. An especially notable research gap exists concerning the mediating role of a firm's marketing capabilities in the key value-creating business processes: customer relationship management (CRM), supply chain management (SCM) and product development management (PDM) (Ramaswami, Srivastava and Bhargava 2009; Srivastava, Shervani and Fahey 1999). In their conceptual article, Srivastava *et al.* (1999) mention MO as a potential theoretical antecedent to these business processes and the firm's capabilities therein. However, only limited empirical research has addressed the mediating role of business process capabilities in the relationship between MO and performance. There also remains a lack of evidence as to mediators' roles in different contextual settings.

Our study offers several contributions to the existing literature on MO. First, we explore whether and how marketing capabilities in the core business processes (PDM, CRM, and SCM) mediate the relationship between MO and business performance. Second, we demonstrate the relative roles of each core business process capability in realizing the potential value of MO. Thus, extending the recent empirical study by Ramaswami *et al.* (2009) on the direct effects of process capabilities on

performance per se, we examine MO as a key antecedent for the business process capabilities that eventually drive financial performance. While the majority of prior MO→Capability→Performance studies (See Table 1) focus on only one business process (e.g., PDM) at a time, ours is the first to empirically test an integrated model, including organizational capabilities in all three business processes concurrently.

Third, the present study investigates the potential moderation of environmental turbulence in our research framework. In particular, we focus on three widely used determinants of environmental dynamism: market turbulence, technological turbulence and competitive intensity (Han, Kim and Srivastava 1998; Jaworski and Kohli 1993). Our primary objective is to determine whether the relative importance of the process capabilities varies with differences in dynamism. Research on MO (e.g., Diamantopoulos and Hart 1993; Kirca *et al.* 2005; Murray *et al.* 2011) clearly shows that context matters. Moreover, in their meta-analysis of capabilities and business performance research, Krasnikov and Jayachandran (2008) recently summarize that addressing the moderating effect of contextual turbulence is of substantive importance, but yet still does not receive sufficient attention in the literature.

To test our moderated mediation model, we use survey data from 480 companies operating in product markets. As to results, we find that the business process capabilities fully mediate the performance effects of MO. In particular, process capabilities in product development management and customer relationship management play a central role in realizing the potential value of MO. We also find that the role of the process capabilities as mediators is significantly moderated by market and technological turbulence levels. For instance, the more turbulent the market, the better firms with a strong PDM capability perform.

In the following, we continue with a literature review mapping the theoretical background to MO, business performance, the three core business processes and the competitive environment. Moreover, a series of hypotheses are developed, constituting a conceptual model of moderated mediation. Thereafter, the model is tested using structural equation modeling. Finally, we conclude with a discussion of the implications of the present study for further research and managerial interest.

2. Theoretical background and hypotheses

2.1. Market orientation and business process capabilities

Following Narver and Slater (1990), we contend that MO comprises three components: customer orientation, competitor orientation and inter-functional coordination. However, given the abstract nature of MO as an organizational culture or resource (Day 1994; Hunt and Morgan 1995), a more concrete intermediate construct at the level of organizational processes is required to bridge MO and performance (For the MO–performance relationship, see e.g., Baker and Sinkula 2005; Homburg and Pflesser 2000). Such an intermediate construct would extend current knowledge on how MO's performance implications unfold through organizational processes.

Organizational process capabilities are particularly relevant mediators as they refer to a firm's accumulated knowledge, skills and routines that enable it to utilize and enhance the value of its resources (Day 1994; Murray *et al.* 2011). Several scholars (e.g., Day 1994; Hurley and Hult 1998; Slater and Narver 1994b) posit that MO is a central antecedent to capability building. Drawing especially on Srivastava *et al.*'s (1999) conceptual initiative and Ramaswami *et al.*'s (2009) empirical investigation, we intend to show that capabilities in the three value-generating core business processes[1] (PDM, CRM[2], and SCM) offer a potential, organization-level explanation into the operational processes that mediate MO and its business performance effects. In line with our approach, a seminal study by Day (1994) also suggests that MO theoretically precedes core process capabilities in marketing and explains how MO (as a market-sensing process) affects the inside-out, outside-in (in our study, CRM) and spanning (in our study, PDM and SCM) business processes.

2.2. Mediating role of the core business process capabilities

[1] Two closely similar frameworks are also reported. Lehmann (1997) proposes a fourth process of information use and research, whereas Hagel and Singer (1999) suggest that every firm consists of three "businesses:" CRM, product innovation and infrastructure management. We chose Srivastava et al.'s framework as it is widely cited and closely reflects Treacy and Wiersema's (1993) potential sources of superior customer value: product leadership, customer intimacy and operational excellence.

[2] Customer management (CM) in Ramaswami, Srivastava and Bhargava (2009)

Table 1 summarizes existing empirical studies into core business process capabilities as potential performance mediators of MO. In addition to the studies presented in Table 1, several studies use constructs that can be seen as the intermediate outcomes of business processes (for instance, customer satisfaction and loyalty, innovation performance and service quality; e.g., Chang and Chen 1998; De Luca, Verona and Vicari 2010; Im and Workman 2004). Extant studies frequently focus on these constructs as outcomes and not as mediators, mostly leaving the link to financial performance unexamined.

The majority of the empirical studies of the MO→Process capability→Performance path use PDM/innovation process-focused mediators, such as organizational innovativeness or R&D proficiency. Mediators related to CRM and SCM processes are used to a considerably lesser extent. Murray *et al.* (2011), Olavarrieta and Friedmann (2008), and Hooley, Greenley, Cadogan and Fahy (2005) offer the only studies that focus on more than one business process capability at a time. Thus, there is a lack of comprehensive approaches to the relative importance of core business process capabilities in the MO-performance relationship. Therefore, we incorporate process capabilities in all three core business processes in our theoretical framework. In the following sections, we open up the three core business processes in terms of their essence, their mediating roles in the MO-financial performance relationship and their operationalizations (cf. Appendix).

Table 1 Summary of empirical mediation studies of the relationship between market orientation and business performance

Process	Author(s)	Mediator(s)	Outcome	Findings (positive mediation)
Various	Murray, Gao and Kotabe (2011)	Marketing capabilities (pricing, NPD, marketing communication)	Performance (financial, strategic, product)	Pricing and NPD mediation; not for marketing communication
	Olavarrieta and Friedmann (2008)	Knowledge-related resources (innovativeness, market-sensing capability, imitation capability)	New product performance, firm performance	At least partial mediation
	Hooley, Greenley, Cadogan and Fahy (2005)	Customer linking capabilities, market innovation capabilities	Customer, market and financial performance	At least partial mediation
PDM	Langerak, Hultink and Robben (2007)	Proficiency in predevelopment, development and commercialization	New product, and organizational performance	Partial mediation
	Mavondo, Chimhanzi and Stewart (2005)	Innovation and human resource practices	Operating efficiency, marketing effectiveness, financial performance	Mediation, except for MO-innovation-financial performance
	Hult, Hurley and Knight (2004)	Innovativeness (capacity to introduce process, product or idea)	Business performance	Partial mediation
	Sandvik and Sandvik (2003)	Use of product innovativeness	Business performance	Partial mediation
	Matear, Osborne, Garrett and Gray (2002)	Innovation (new service development)	Firm performance	Partial mediation
	Baker and Sinkula (1999)	Product innovation	Organizational performance	Full mediation
	Han, Kim and Srivastava (1998)	Organizational innovation (technical, administrative)	Organizational performance	Full mediation
CRM	Rapp, Trainor and Agnihotri (2010)	Customer-linking capabilities	Organizational performance	Partial mediation
	Chang, Park and Chaiy (2010)	CRM technology use, marketing capability	Organizational performance	At least partial mediation
	Hult, Ketchen and Slater (2005)	Organizational responsiveness	Objective performance (t+1)	Full mediation
SCM	Min, Mentzer and Ladd (2007)	Supply chain orientation (SCO), supply chain management (SCM)	Firm performance	Mediation for SCO, not for SCM
	Martin and Grbac (2003)	Responsiveness to customers, strength of supplier relationship	Profit, sales growth	Mediation for profit, not for sales growth

2.2.1 PDM process capability

Typically, process capabilities in PDM refer to a firm's ability to develop, commercialize and launch new products in an effective and efficient manner (Vorhies and Morgan 2005; Chen 2009). It also comprises the ability to constantly develop a firm's business model (cf. Chesbrough 2010). Slater and Narver (1994) identify innovation as one of the core capabilities that convert MO into organizational performance. More specifically, subsequent studies suggest that customer and competitor orientations can be used successfully to develop innovative products (Grinstein 2008). Further, inter-functional coordination, in particular, is linked to better implementation of product design and launch (Song and Parry 1992), as it helps in transforming customer and competitor orientations into innovation capabilities (Atuahene-Gima 2005). Thus, a market-oriented culture may lead to superior business performance as a result of exploiting market knowledge in designing and developing superior new products brought to market (Kirca *et al.* 2005; Srivastava *et al.* 1999). A positive influence between MO and innovation capabilities (Hooley *et al.* 2005; Murray *et al.* 2011; Olavarrieta and Friedmann 2008) and product innovation (e.g., Han, Kim and Srivastava 1998; Lukas and Ferrell 2000) are also established empirically.

Once PDM and innovation capabilities are sufficiently developed, firms can successfully develop new products and services to meet customer needs in different business contexts (Gatignon and Xuereb 1997; Hooley *et al.* 2005; Murray *et al.* 2011). This, in turn, is argued to result in competitive advantage and superior business performance (Baker and Sinkula 2005; Hooley *et al.* 2005; Hurley and Hult 1998; Ramaswami *et al.* 2009). Recently, a number of studies are specifically focused on the mediating role of solely PDM-related constructs in the MO-performance relationship. For example, Langerak *et al.* (2007) demonstrate that the influence of MO on performance is channeled through NPD proficiency and new product performance. Moreover, capacity to innovate and introduce products and services or processes (Hult *et al.* 2004; Olavarrieta and Friedmann 2008), NPD capability (Murray *et al.* 2011) and R&D effectiveness (De Luca *et al.* 2010) are shown to mediate the MO-performance link. Thus, following the literature, we hypothesize:

> *H1: PDM process capability positively mediates the effect of market orientation on financial performance (i.e., market orientation improves financial performance by enhancing PDM process capability).*

2.2.2. CRM process capability

Customer service, essentially referring to CRM, is also one of Narver and Slater's (1994) core capabilities in translating MO into organizational performance. CRM capability is a multifaceted concept, but generally refers to the dynamic processes of activities that aim at meeting the needs of current and potential customers in order to acquire and retain valuable and relevant customers and to enhance value capture from customer relationships at the same time (Boulding, Staelin, Ehret and Johnston 2005; Ernst, Hoyer, Krafft and Krieger 2010; Reinartz, Krafft and Hoyer 2004; Srivastava *et al.* 1999). In line with previous literature, we posit that a market-oriented culture is beneficial for establishing and nurturing customer relationships and in developing related organizational capabilities (Day 1994; Hooley *et al.* 2005; Rapp *et al.* 2010). This seems logical since the development of a relationship essentially involves learning between parties while actively aligning interests based on this learning through interfunctional coordination – central characteristics of a market-oriented culture (Narver and Slater 1990; Slater and Narver 1995). The positive relationship between MO and a firm's customer-linking and market-sensing capabilities (Day 1994) is also demonstrated empirically in a number of studies (e.g., Hooley *et al.* 2005; Olavarrieta and Friedmann 2008; Rapp *et al.* 2010).

Effective CRM processes imply that firms are doing a better job than competitors at targeting high value customers, responding effectively to their needs and creating value for them, resulting in increased customer satisfaction and performance (Mithas, Krishnan, and Fornell 2005; Ramaswami *et al.* 2009; Srinivasan and Moorman 2005). More specifically, scholars have recently shown that firms with effective CRM processes and practices (Ernst *et al.* 2010; Ramaswami *et al.* 2009; Reimann, Schilke and Thomas 2010; Reinartz *et al.* 2004) and CRM capabilities (e.g., Day and Van den Bulte 2002; Keramati, Mehrabi and Mojir 2010) generally enjoy improved organizational performance. Recent studies also report that the performance implications of MO are positively mediated through CRM-related capabilities, such as the customer-linking capability (Hooley *et al.* 2005; Rapp *et al.* 2010) and organizational responsiveness to changes in the marketplace (Hult *et al.* 2005). In line with this recent evidence, we hypothesize:

> *H2: CRM process capability positively mediates the effect of market orientation on financial performance (i.e., market orientation improves financial performance by enhancing CRM process capability).*

2.2.3. SCM process capability

From the firm perspective, SCM capability refers to the efficiency of internal and external logistics: acquisition of all physical and informational inputs as well as the transformation of these inputs into customer solutions (Srivastava *et al.* 1999; Tracey, Lim and Vonderembse 2005). Thus, it includes simultaneous integration of customer requirements, internal processes and upstream supplier performance (Tan, Kannan, Handfield and Ghosh 1999). Srivastava *et al.* (1999) further proposes that the terms and conditions that the firm is able to negotiate with its suppliers and intermediates are parts of its SCM process capability. Studies that seek to investigate MO in an SCM context remain scarce despite recent findings as to the association between MO and SCM. For example, Esper *et al.* (2010) suggest that superior value propositions emerge from a deep understanding of markets as well as SCM capabilities and resources. They specifically claim that demand- and supply-focused processes should be integrated in order to contribute to customer value creation throughout the supply chain. Min and Mentzer (2000) and Martin and Grbac (2003) further propose that MO plays a pivotal role in implementing SCM, as it produces and stores valuable market knowledge that is needed in the process of building, maintaining and enhancing supply chain relationships. Moreover, Hooley *et al.* (2005) find that MO positively correlates with operations management quality.

A number of empirical studies, in turn, show that an effective SCM process can improve firm performance in several ways, such as building strong supplier relationships that enhance the firm's ability to respond to customers' changing needs more effectively and reducing the firm's operating costs through improved inventory management and logistics (Martin and Grbac 2003; Ramaswami *et al.* 2009; Tan *et al.* 1999). Moreover, Langerak (2001) identifies that a manufacturer's MO is positively associated with the behaviors of salespeople and purchasers, which further drive the channel relationships and financial performance of manufacturers. Additionally, it is established that the SCM process (Min *et al.* 2007), SCM strategy (Green, McGaughey and Casey 2006) and supplier relationships (Martin and Grbac 2003) may essentially leverage a firm's MO and, consequently, financial performance. Thus, we hypothesize:

> *H3: SCM process capability positively mediates the effect of market orientation on financial performance (i.e., market orientation improves financial performance by enhancing SCM process capability).*

2.3. Moderating effects of business context

Literature in marketing and strategic management suggests that to improve business performance, firms require unique assets and capabilities in stable environments as compared to those needed in turbulent, fast-changing environments (e.g., Eisenhardt and Martin 2000; Hult *et al.* 2004). In other words, value creation based on the three business process capabilities is likely to be, at least partly contingent on a firm's external environment (Sirmon, Hitt and Ireland 2007). While context characteristics are of substantive importance, they do not receive sufficient attention in the literature that examines the performance impacts of different organizational characteristics (Krasnikov and Jayachandran 2008; Ramaswami *et al.* 2009). In this study, our aim is to explore whether the link between different, market-driven business process capabilities and organizational performance is contingent on environmental turbulence, characterized by frequent changes in customer preferences, technological advancements and intense competition (Jaworski and Kohli 1993).

Extant studies identify a number of potential mechanisms for how the business environment may moderate business performance. On the one hand, rapidly changing market composition and changing customer preferences may force a firm to modify its products and services more often than when it operates in a stable market (Hult *et al.* 2004), resulting in the increased importance of innovativeness and PDM capabilities (Han *et al.* 1998; Olavarrieta and Friedmann 1999). On the other hand, predicting consumer needs is difficult in a highly turbulent market and responding to changes through PDM may result in less fruitful outcomes (Gao, Zhou and Yim 2007). Langerak, Peelen, and Commandeur (1997) additionally comment that successful PDM depends on the competitive environment in which the firm operates.

Prior studies (e.g., Ernst *et al.* 2010; Keramati *et al.* 2010) also find somewhat equivocal evidence for the performance outcomes of CRM process capability. This may be explained by moderating factors (Boulding *et al.* 2005; Olavarrieta and Friedmann 2008; Srinivasan and Moorman 2005), although some scholars (e.g., Day and van den Bulte 2002; Rapp *et al.* 2010; Reinartz *et al.* 2004) propose that environmental dynamism does not influence the link between CRM process capability and performance. Within the SCM process, prior empirical studies are essentially lacking. However, Krasnikov and Jayachandran (2008) propose that operations capability might be relatively more significant in stable markets than in turbulent markets.

In the absence of a sufficiently consistent theoretical basis, we approach the interactions in an explorative manner, posing a general hypothesis:

H4: Environmental turbulence moderates the effect of core business process capabilities on financial performance (i.e., the performance effects of business process capabilities depend on the degree of environmental turbulence).

2.4. The research framework

Following the literature review and hypotheses development, the resulting research framework is presented in Figure 1. In our framework, MO serves as a key organizational antecedent resource, the three core business process capabilities as strategic mediating activities, and finally, financial performance as the outcome to be explained. The mediating effects of the three business process capabilities in the MO-performance relationship are essentially captured in hypotheses H1-H3. Further, we examine the moderating effect of environmental turbulence on financial performance, as hypothesized in H4. Following Krasnikov and Jayachandran (2008, 9), who state that "... it is essential to examine *directly* whether market and technological turbulence influence the relative impact of different capabilities on performance" [emphasis added], we place environmental moderators between capabilities and financial performance and not between MO and capabilities, as in Murray *et al.* (2011). This enables us to examine how the performance effects of MO and process capabilities, taken together, are contingent on environmental turbulence.

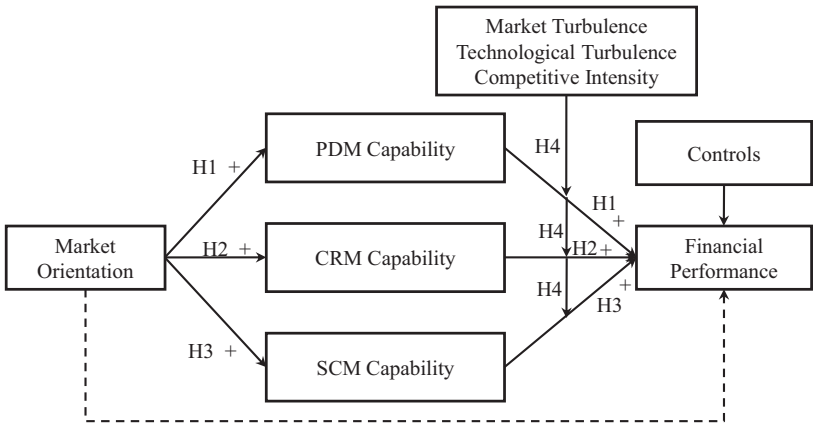

Figure 1 The research framework (The dotted line represents a direct effect that may be mediated)

3. Methodology

3.1. Research setting

Empirical study is deployed to test the hypothesized relationships between MO, the three business process capabilities and business performance in companies operating in product markets. The context is appropriate for two primary reasons. First, product business companies tend to have more explicit process management practices for all the three processes: PDM, as well as CRM and SCM. Second, as suggested by Kirca *et al.* (2005), MO plays a different role in service rather than product firms. Hence, focusing on product business enhances the internal validity and findings interpretations.

The data were collected with a web-based survey of product-business companies based in Finland in 2010. A pilot version of the questionnaire was tested with 34 managing directors. Some necessary corrections and changes in wording were made before sending the link to the final questionnaire to potential respondents. The target population comprises top management in all product business companies with more than five employees that is derived from the database of the leading Finnish commercial provider (MicroMedia). The sampling frame then consists of 4411 companies. 480 usable responses are received, which corresponds to a response rate of 10.9%. The profile of our sample (Table 2) shows that multiple industries are represented in the sample, with a reasonable spread across different-sized B-to-B and B-to-C firms. Considering the positions held by the respondents (mostly CEOs or equivalent) and length of our survey instrument, the response rate is considered adequate (cf. Hooley *et al.* 2005). Non-response bias is tested via analysis of mean scores on the survey items for early versus late respondents (Armstrong and Overton 1977). No significant differences are found using t-tests at the .05 level, which suggests that non-response bias is not a problem in this study.

Table 2 Sample description

Characteristic	Number	Percent	Characteristic	Number	Percent
Type of firm			Industry phase		
B-to-B	293	61.0	Emerging	39	8.1
B-to-C	187	39.0	Growth	153	31.9
Size (# of employees)			Mature	233	48.5
5-10	79	16.5	Decline	55	11.5
11-50	174	36.3	Market share (%)		
51-250	131	27.3	0 – 3	52	11.5
251-500	23	4.8	4 – 10	74	16.3
> 500	73	15.2	10.1 – 20	96	21.2
Market position			20.1 – 35	107	23.6
Market leader	142	29.6	35.1 – 50	74	16.3
Market challenger	211	44.0	> 50	50	11.0
Market follower	127	26.5			

3.2. Measures

The measures of MO, core business process capabilities and financial performance are predominantly drawn from existing scales (For a complete listing of items in each scale, see Appendix). The frequently used 15-item MKTOR scale (Narver and Slater 1990) is deployed to measure MO. For the three business process capabilities, empirically validated scales are not available. Therefore, we choose established articles to provide a point of departure and to supplement the scales with new items. As a result, we create eight-item scales for each of the capabilities. With one exception, items for the PDM process capability are adapted from Vorhies and Morgan (2005) and Chen (2009). The CRM process capability items are selected from those of Reimann *et al.* (2010), Reinartz *et al.* (2004) and Hult *et al.* (2005). The scale for SCM process capability, in turn, is mostly based on items from Tracey *et al.* (2005). All new items are based on conceptual openings (e.g., Srivastava *et al.* 1999) and developed on the basis of detailed literature review as well as expert interviews.

Items selected for the subjective financial performance scale (profits, ROI and ROA) are used in several previous studies (e.g., Hooley *et al.* 2005; Reimann *et al.* 2010). For the purposes of this study, subjective measures of performance relative to competitors are considered appropriate as they help eliminate the effects of different industries and business settings that are inevitable in national-level data sets. Lastly, dimensions of environmental turbulence – market turbulence, technological turbulence and competitive intensity – are measured using four-to-six item scales

derived from Jaworski and Kohli (1993). The dimensions reflect the rate of changes in customer preferences and customer loyalty, market competitiveness and the rate of technological advancements, respectively. Additionally, we use the following control variables in our models: dummy-coded firm type (B-to-B vs. B-to-C) and market phase (emerging or growing vs. mature or declining) and categorical firm size, in terms of number of employees and turnover.

Following Moorman and Rust (1999), if the organization has only one strategic business unit (SBU), respondents are asked to focus on the entire company when responding and otherwise at an SBU level. All items, except those of MO and the control variables, are measured on a seven-point advantage scale. MO is assessed on a seven-point agreement scale. Although the items are ordinal in nature, subsequent analyses are conducted as if the answers were given at continuous scales (cf. Finney and DiStefano 2006).

3.3. Measurement validity

Confirmatory factor analysis (CFA) is used for scale construction and validation in terms of MO, process capabilities, financial performance and environmental turbulence dimensions. A number of items were excluded from the model in effort to achieve appropriate levels of unidimensionality. Subsequently, the goodness-of-fit indicators of the measurement model are found at the least acceptable: root mean square of approximation (RMSEA)=.053; goodness of fit index (GFI)=.90; comparative fit index (CFI)=.96; non-normed fit index (NNFI)=.96.

Reliability measures and the correlation matrix for the latent variables are shown in Table 3. Specifically, all composite reliabilities (CR) and all but two (CRM capability and competitive intensity) average variances extracted (AVE) are above generally applied thresholds: .60 and .50, respectively. Moreover, sufficiently high factor loadings (threshold .60) and CRs suggest high convergent validity. To prove the model's discriminant validity, we use the Fornell and Larcker (1981) procedure and, accordingly, compare the square root of the AVE for a given construct to the absolute value of the standardized correlation of the given construct with any other construct in the analysis. As we find that all the square roots of the AVE are greater than the corresponding correlations (Table 3), support for discriminant validity is provided (Fornell and Larcker 1981).

Table 3 Means, standard deviations, construct reliability and validity and correlations

Construct	Mean	S.D.	CR	AVE	1	2	3	4	5	6	7	8
1. Market Orientation	5.36	.95	.84	.51	**.72**							
2. PDM Capability	4.68	.95	.80	.50	.53	**.71**						
3. CRM Capability	4.71	.76	.82	.48	.50	.65	**.70**					
4. SCM Capability	4.62	.85	.79	.56	.26	.31	.60	**.75**				
5.Financial Performance	4.51	1.46	.97	.91	.21	.36	.38	.27	**.95**			
6. Market Turbulence	4.17	1.43	.76	.61	.18	.15	.12	.05	.01	**.78**		
7. Technol. Turbulence	4.26	.88	.86	.60	.10	.12	.09	.07	.01	.47	**.78**	
8. Comp. Intensity	4.62	1.23	.65	.48	.04	.02	.03	.07	.08	.44	.17	**.69**

Square-root of average variance extracted (AVE) on the diagonal in bold; correlations off-diagonal

To assess common method bias, we use Harman's one-factor analysis. An unrotated principal components factor analysis identifies eight factors that explain 70% of the total variance, of which the first factor accounts for 24%. Thus, no single factor accounts for more than half of the variance in the data, suggesting that the common method bias is not a threat to the validity of the findings (Podsakoff and Organ 1986). Taking all the above statistics into consideration, a set of sufficiently robust measures in terms of reliability and validity is provided.

4. Results

To reveal the potential mediating effect of core business process capabilities, and thus test the three hypotheses, we follow the procedure put forth by Kenny, Kashy and Bolger (1998). Accordingly, we analyze a series of structural equation models in LISREL (Jöreskog and Sörbom 2005), as reported in Table 4. Maximum likelihood and covariance matrix estimation procedure are used. As suggested by Kenny *et al.* (1998), we estimate three structural models that all fit the data sufficiently well.

To show that there is an effect that may be mediated, the first step is to establish that MO influences financial performance. The results (in Model 1) suggest that this holds true, as a positive performance link is established between MO and financial performance ($\beta = .23$; $p < .001$). The second step involves demonstrating that MO has significant effects on the mediator variables: the core business process capabilities. This step (in Model 2) is also supported. More specifically, it is found that MO strongly influences organizational capabilities in PDM ($\beta = .59$; $p < .001$), CRM ($\beta = .56$; $p < .001$) and SCM ($\beta = .33$; $p < .001$) processes.

The following steps of the Kenny *et al.* (1998) procedure are conducted simultaneously in Model 3, in which we intend to demonstrate that the mediators influence financial performance also when the effect of MO is controlled. The results in Model 3 suggest that MO loses its significance on performance (β = .00; t = -.57) when the mediators are introduced to the analysis. This indicates that, in aggregate, capabilities in the core business processes fully mediate the MO-performance relationship (Kenny *et al.* 1998).

However, we identify notable differences in the role of individual business process capabilities when we consider them separately. Specifically, while the PDM process capability strongly mediates the MO-financial performance relationship and the CRM process capability does so to a moderate extent, the SCM process capability does not mediate the relationship at all. In other words, it seems that the process through which MO influences business performance culminates in the PDM and CRM process capabilities. Thus, hypotheses H1 and H2 are supported, while H3 is rejected. The complete structural model with controls results in the following explanatory power for the constructs: 34.3 %, 31.8 %, and 10.6 % for PDM, CRM and SCM process capabilities, respectively, and 15.8 % for financial performance. None of our controls (firm type and size, market phase) affect performance significantly.

Table 4 Results of the mediation analysis

Variable	Model 1: DV= Performance	Model 2: DV=Process capabilities			Model 3: DV= Performance
		PDM capability	CRM capability	SCM capability	
Market orientation	.23*** (4.60)	.59*** (10.39)	.56*** (8.96)	.33*** (6.00)	-.00 (-.57)
PDM capability	-	-	-	-	.23** (3.07)
CRM capability	-	-	-	-	.18* (1.97)
SCM capability	-	-	-	-	.10 (1.42)
B2B vs. B2C	.00 (-0.09)				-.03 (-.60)
Size (turnover)	-.05 (-0.69)				-.02 (-.50)
Market phase	.05 (1.01)				.06 (1.41)
Size (# of employees)	-.07 (-0.98)				-.07 (-1.05)
Model Fit					
Model 1: χ^2 (43)=95.71, p=.00; GFI=.97; CFI=0.98; NNFI=.97; RMSEA=.051					
Model 2: χ^2 (116)=565.70, p=.00; GFI=.88; CFI=0.94; NNFI=.93; RMSEA=.090					
Model 3: χ^2 (220)=598.87, p=.00; GFI=.91; CFI=0.96; NNFI=.96; RMSEA=.060					

Standardized coefficients are reported with *t*-values in parentheses

* p < .05; **p < .01; *** p < .001

To test the moderating effect of environmental turbulence, we first create standardized composites for each of the latent variables and, subsequently, multiply these standardized scores to create the interaction terms (Mathieu, Tannenbaum and Salas 1992). Four statistically significant moderating effects are found in support of hypothesis H4. More specifically, market turbulence moderates the effect of PDM process capability on financial performance positively ($\beta = .29$, $p < .05$) and the CRM process capability–performance relationship negatively ($\beta = -.34$, $p < .05$). In other words, the positive performance implications of PDM process capability are greater in highly turbulent markets, suggesting that firms are better off with an ability to provide valuable products for customers even when their needs and preferences are rapidly changing. On the other hand, turbulent business environments weaken the effect of CRM process capability on performance. This implies that, under high turbulence, the costs of the CRM process may outweigh its benefits so that CRM process capability might have a positive performance relationship only when market turbulence and technological turbulence are low.

Further, technological turbulence moderates the SCM process capability–performance relationship positively ($\beta = .50$, $p < .01$) and the CRM process capability–performance relationship negatively ($\beta = -.36$, $p < .05$). Thus, the performance effects of the SCM process capability increases significantly in a technologically turbulent marketplace. Moreover, CRM process capability's influence on financial performance decreases under technological turbulence. Again, none of our controls are found to affect performance significantly.

Taken together, our results suggest that, under high environmental (both market and technological) turbulence, CRM process capability affects performance negatively. Interestingly, competitive intensity has no significant moderating effect on any of the capabilities. The results from the moderated mediation model are presented in Table 5; the significant paths are illustrated in Figure 2.

Table 5 Results for the moderated mediation model

Variable	PDM	CRM	SCM	Performance
Market orientation	.68*** (13.84)	.66*** (13.60)	.40*** (7.55)	-
PDM capability (PDM)				.29*** (4.91)
CRM capability (CRM)				.24*** (4.21)
SCM capability (SCM)				.09 (1.84)
Market turbulence (MT)				-.28* (-2.11)
Technol. turbulence (TT)				.08 (.91)
Competitive intensity (CI)				.26* (2.42)
PDM × MT				.29* (1.96)
PDM × TT				.11 (.97)
PDM × CI				.02 (.20)
CRM × MT				-.34* (-2.04)
CRM × TT				-.36* (-2.08)
CRM × CI				-.06 (-.47)
SCM × MT				-.01 (-.06)
SCM × TT				.50** (3.08)
SCM × CI				.11 (1.18)
B2B vs. B2C				-.02 (-.37)
Size (turnover)				-.15 (-1.76)
Market phase				.05 (.88)
Size (# of employees)				.02 (.21)

Standardized coefficients are reported with *t*-values in parentheses
* p < .05; **p < .01; *** p < .001

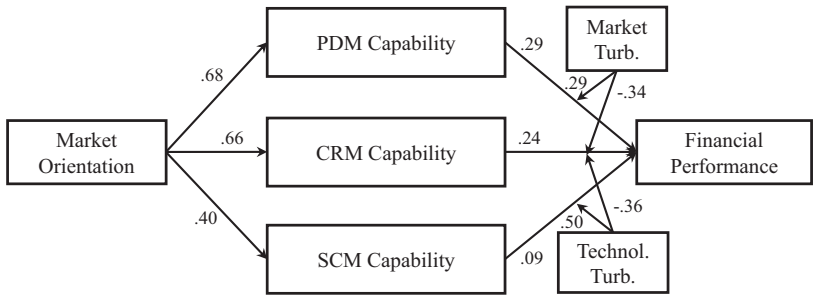

Figure 2 Standardized path estimates. All the shown path estimates are significant at p<.10.

The moderated mediation model is able to explain financial performance significantly better than the mediation model (27.4% vs. 15.8%). Thus, as a key contribution of our study, we empirically show that environmental turbulence significantly moderates the relationship between business process capabilities and financial performance (cf. Ramaswami *et al.* 2009;

Krasnikov and Jayachandran 2008). As such, considering environmental turbulence adds value to previous analyses, resulting in a more realistic evaluation of the performance mechanisms in different business contexts.

5. Discussion and Conclusions

5.1. Theoretical implications

Previous research on the relationship between MO and business performance is wide in scale and scope. Now that the question is no longer whether a positive relationship exists between the two (Cano *et al.* 2004; Kirca *et al.* 2005), it is time to research the operational, organizational processes through which MO drives performance. While our literature review (Table 1) reveals that this work is already underway, few scholars (Hooley *et al.* 2005; Murray *et al.* 2011; Olavarrieta and Friedmann 2008) yet examine business processes as drivers of this relationship in a single study. To bridge this gap, building on Ramaswami *et al.* (2009), we shed light especially on the relative importance of the business process capabilities in facilitating enhanced performance from MO. In addition to the mediated model, we consider the moderating effect of environmental turbulence (Jaworski and Kohli 1993) on financial performance. This adds value to the discussion of mediators' roles in different contextual settings. More specifically, our study contributes to the literature in MO and business process capabilities in three ways.

First, we show that the business process capabilities fully mediate the MO-financial performance relationship. While an increasing amount of research focuses on the mediating factors between MO and business performance (e.g., Hult *et al.* 2005; Langerak *et al.* 2007), evidence as to the role of business process capabilities – and their relative importance, in particular – remains scant. In our study, we focus on the mediating role of capabilities in Srivastava *et al.*'s (1999) core business processes: PDM, CRM and SCM. Thus, in line with, for instance, Murray *et al.* (2011), our findings clearly indicate that the capabilities in core marketing-related business processes help firms realize the potential value of MO (Baker and Sinkula 2005; Day 1994; Ketchen *et al.* 2007; Moorman and Slotegraaf 1999). In other words, our results suggest that MO improves financial performance through the enhancement of these capabilities. Further, by including core business process capabilities as a translating organizational mechanism, the

present study contributes to enhanced understanding of how MO affects firm performance. This finding provides practical insight to the implementation of a MO, following demands by, for example, van Raaij and Stoelhorst (2008).

Second, our study reveals that the relative importance of core business process capabilities in translating market orientation into business performance varies considerably. In general, PDM process capability is of particular importance to product business companies. Our findings also indicate that CRM process capability generally mediates the MO-performance relationship positively. Nevertheless, in highly turbulent business environments, the performance effect of CRM capability diminishes and even becomes negative. Thus, our findings contrast partly with the results of Ramaswami *et al.* (2009), who find that CRM process capability is the most critical of the three, while finding PDM process capability as unimportant. However, in their study, the authors use an aggregate sample of both product and service firms, which might partly explain the differences.

Further, in support of Krasnikov and Jayachandran (2008), we find that SCM process capability is the least important in contributing to firm performance and under most circumstances, not a mediator. This might stem from most firms being able to operate in a sufficiently efficient way, thanks to for example, highly developed logistics (ITC) systems. Therefore, SCM capabilities might not be able to provide a source of performance differentials. However, we do not contend that SCM capability is unimportant for firms. Rather, PDM and CRM process capabilities may be more 'success-producing' capabilities, whereas high SCM capability may ensure that a firm does not lag behind competitors in terms of operational efficiency and, consequently, serves as a 'failure prevention' capability (See Varadarajan 1985). In other words, although operational efficiency is critical in most cases, more concrete performance gains could emerge from customer value-creating capabilities, such as PDM and CRM capabilities.

As our empirical investigation finds that core business process capabilities provide a necessary mechanism for MO's performance implications, this study further corroborates the role of MO as a deeply embedded, cultural phenomenon that affects the whole organization, not just marketing activity (Narver and Slater 1990; Hooley *et al.* 2005). In this regard, MO can be considered a dynamic capability (cf. Menguc and Auh 2006) that facilitates guidance and development of organizational capabilities for firms, in terms of their core business processes. Competitive advantage and superior business performance, in turn, result from these capabilities and their combinations.

Third, our findings indicate that market turbulence and technological turbulence moderate the relationship between core business capabilities and financial performance significantly. The empirical model is considerably improved, as we add environmental moderation into the analysis. As we include the potential moderating effects of environmental turbulence, our statistical model explains substantially more of financial performance (27.4%) than the model without these moderators (15.8%). Thus, our study complements and extends several recent studies (e.g., Krasnikov and Jayachandran 2008; Murray *et al.* 2011; Ramaswami *et al.* 2009; Rapp *et al.* 2010) in considering the external moderation of environmental turbulence on business performance.

In particular, market turbulence seems to moderate positively the PDM process capability–performance relationship. In other words, the more turbulent the market, the better (worse) a firm with strong (weak) PDM process capability tends to perform. This corresponds to evidence from a number of previous studies (e.g., Han *et al.* 1998; Olavarrieta and Friedmann 1999; cf. Gao *et al.* 2007). We also find positive moderation for technological turbulence in the SCM process capability–performance relationship. This novel finding suggests that process capability in SCM is a source of performance differentials only in business contexts where technological changes are rapidly occurring (cf. Krasnikov and Jayachandran 2008). As an explanation for this rather surprising finding, especially in product business, strong relationships with both suppliers and distributors may reduce the time necessary to bring new product innovations into markets and, therefore, allow the focal firm to react faster to new technology developments. Thus, strong SCM process capability is needed, especially when operating in environments that are characterized by high technological turbulence. Also, in the context of high technological turbulence, adopting new technological solutions available for SCM may, in itself, enhance performance.

Finally, with regard to CRM process capability, the moderating effects we find contrast with prior findings. First, opposite to Olavarrieta and Friedmann (2008), we find that the moderating influence of market turbulence in the CRM process capability–performance link is negative. This, like the negative moderation of technological turbulence, is also contrary to Rapp *et al.* (2010) and Reinartz *et al.* (2004), who find that environmental dynamism does not influence the link between CRM process capability and performance. More specifically, our findings indicate that in markets where customer preferences and dominant technologies change rapidly, capability of responding to present customer needs becomes less important and its costs may even exceed the benefits. Instead, in this kind

of market, the ability to react quickly to emerging needs and opportunities, and therefore, strong capability in PDM, increases in importance.

5.2. Managerial implications

From a practitioner perspective, research linking MO, core business process capabilities and business performance has two primary goals. It can: (1) develop managerial understanding about the role of business processes and thereby create a better functioning set of marketing capabilities and (2) be used to justify investments that improve MO. First, our findings emphasize that MO itself is not a direct performance driver in companies. Rather, we conclude that the positive impact of MO on performance is channeled through marketing-related business process capabilities. Thus, managers need to pay more attention to the translative mechanism between MO and financial performance, while the primary function of MO might be to act as an impetus that fuels the development of organizational capabilities in core market-related business processes. Accordingly, we argue that managers need not only put efforts on adopting market-oriented culture and behavior, but also take notice of the underlying managerial processes in order to capture the potential benefits of MO.

Understanding the MO→Process capability→Performance relationship should help managers control internal processes and emphasize developing capabilities in a firm's key business processes. According to our study, PDM and CRM processes seem the most central in this regard. The corresponding capabilities should not be managed only as distinct entities, but as means of translating MO to company performance. Second, the results of the present study indicate that investments in developing a market-oriented organizational culture seem to pay off. Thus, MO is a necessary organizational resource for firms as they aim to fully enjoy the benefits of their other resources and capabilities.

Our findings also further validate the postulate that no strategy is universally superior (cf. Venkatraman 1989). Quite the contrary, they emphasize the contextuality of 'success recipes' in today's dynamic business environment. In particular, we propose that the critical role of market-driven business process capabilities in translating the potential value of MO into business performance vary across different levels of environmental turbulence. More specifically, PDM and SCM capabilities' roles seem to increase under turbulent business environments, whereas the role of CRM capability diminishes. Thus, performance outcomes might be dependent on the alignment between organizational process capabilities and external

environmental conditions. Managers should, consequently, devote organizational efforts to systematically track changes in the business environment and to assess the firm's competence deficiencies, which will help to refine existing competencies and develop the requisite new ones to meet the needs of the new environment (See Atuahene-Gima 2005).

5.3. Limitations and avenues for future research

This study has shed light on the performance mechanisms of MO, aimed at unpacking the 'black box' of firm performance. Nevertheless, we should critically assess its limitations, which provide fertile grounds for future research. First, as in most studies using structural equation modeling, our data is cross-sectional, and not longitudinal; therefore caution is required when drawing cause-effect inferences. Future studies should analyze how MO (or other organizational orientations) transforms into capabilities over time, and how capability development and deployment influence performance dynamically. Additionally, we chose informants from among the firms' top management based on the assumption that they had the most comprehensive knowledge regarding the issues under study (e.g., McKenna 1991). Nevertheless, top management might not have as detailed information about the level of a firm's SCM capability, for instance, than the head of SCM. Therefore, using multiple respondents per SBU could improve the reliability of the findings. One also needs to bear in mind that performance is a multi-dimensional contruct and, while this study has focused on the efficiency perspective, future research could also consider effectiveness and adaptiveness (cf. Morgan, Clark and Gooner 2002).

Second, as the sample of firms included in the analysis only comprise product business companies, generalizations to other types of businesses should be made with caution. In particular, the highlighted role of PDM with respect to other key business processes might be due partly to the nature of the business. For example, in a service business, the role of SCM might be emphasized (cf. Lambert and Cooper 2000). Moreover, Kirca *et al.* (2005) find that the MO-performance relationship is stronger for manufacturing firms than service firms. Thus, an interesting question for further research would be whether different MO–capability–performance mechanisms are in effect in service business companies and whether other significant differences in the key relationships can be identified.

Third, given that this study focuses on Finland-based companies in product markets, one should be careful when generalizing the results to different contexts. This holds true although, in their meta-analyses,

Krasnikov and Jayachandran (2008) do not find differences in the capability–performance relationship between manufacturing and service firms and between U.S. and non-U.S. companies, while Cano *et al.* (2004) propose that country-of-origin does not play a moderating role in the MO-performance relationship. Given our encouraging results in improvement of the explanatory power, future studies should consider potential moderation of business contexts in their research frameworks. To further improve the understanding of contextual differences, subsequent studies could also use other external moderators, such as firm type (B-to-B vs. B-to-C) or internal moderators (e.g., firm age and size).

Fourth, in our study, the three business process capabilities are considered as parallel, although they might, in fact, be intertwined and affect one another (e.g., Ramaswami *et al.* 2009). Realizing that the operative reality might be more closely reflected if the processes are allowed to interact with each other, we conducted a post-hoc analysis on the combined effects. However, no significant interaction effects between different process capabilities were found. Finally, since we do not find synergies between different business process capabilities on performance, our findings depart from those of Ramaswami *et al.* (2009). Therefore, this phenomenon calls for future research.

Appendix Measurement items and standardized loadings

Source(s)	Construct	Item	Stand. loading
Narver & Slater (1990)	Market Orientation[1]	1. Our business objectives are driven primarily by customer satisfaction	.65
		2. We constantly monitor our level of commitment an orientation to serving customers needs	.68
		3. Our strategy for competitive advantage is based on our understanding of customers needs	.73
		4. All of our business functions are integrated in serving the needs of our target markets	.73
		5. Our business strategies are driven by our beliefs about how we can create greater value for our customers	.79
Adapted from Vorhies & Morgan (2005); Chen (2009)	PDM Process Capability[2]	1. Ability to develop new product/service ideas	.74
		2. Exploitation of new business models	.74
		3. Rapid commercialization of ideas	.70
		4. Ability to successfully launch new products/services	.66
Adapted from Reimann *et al.* (2010); Reinartz *et al.* (2004); Hult *et al.* (2005)	CRM Process Capability[2]	1. Understanding customer needs in order to deliver what they want	.60
		2. Identifying potential new customers	.64
		3. Development/execution of customer service programs	.64
		4. Development/execution of customer encounters	.78
		5. Ability to respond to customer enquiries and requests rapidly	.79
Adapted from Tracey *et al.* (2005)	SCM Process Capability[2]	1.Order processing abilities	.81
		2. Effective invoicing and terms	.75
		3. Management of logistics and inventory	.67
Hooley *et al.* (2005); Reimann *et al.* (2010)	Financial Performance[2]	1. Profit / profit margins relative to main competitors	.89
		2. Return on investment (ROI) relative to main competitors	.99
		3. Return on assets (ROA) relative to main competitors	.97
Jaworski & Kohli (1993)	Market Turbulence[1]	1. In our kind of business, customers' product preferences change quite a bit over time	.76
		2. Our customers tend to look for new products all the time	.80
Jaworski & Kohli (1993)	Competitive Intensity[1]	1. There are many "promotion wars" in our industry	.64
		2. One hears of a new competitive move almost every day	.74
Jaworski & Kohli (1993)	Technological Turbulence[1]	1. The technology in our industry is changing rapidly	.73
		2. Technological changes provide big opportunities in our industry	.83
		3. A large number of new product ideas have been made possible through technological breakthroughs in our industry	.89
		4. Technological developments in our industry are rather minor (R)	.63

[1] The response options ranged from 1, "strongly disagree," to 7, "strongly agree."

[2] The response options ranged from 1, "much worse," to 7, "much better."

(R) Reverse-coded item

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Essay III

Matti Jaakkola

Market-driven Innovation Capability and Financial Performance: Moderating Effects of the Business Context

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Market-driven Innovation Capability and Financial Performance: Moderating Effects of the Business Context

Abstract

While most scholars of strategic marketing propose that market orientation (MO) is a source of superior firm performance, prior studies are predominantly limited to examining the performance effects of MO either directly or via mediating mechanisms. Less attention has been paid to complementarities between MO and other key concepts, although the potential of synergistic performance outcomes is argued with resource-based theory. Additionally, extant studies propose that a firm's ability to create value is likely contingent on a firm's external environment. To these ends, this study examines the effect of the market orientation–innovation capability combination on financial performance in varying levels of environmental turbulence. To account for potential aggregation bias, I examine the robustness of results between different market and offering types. Using structural equation modeling, findings reveal that MO and innovation capability result in synergistic performance outcomes; particularly, MO strengthens the performance implications of innovation capability. The findings also suggest that identified performance relationships are highly contextual and vary according to industry type and level of market turbulence and competitive intensity. For instance, innovation capability gains momentum in competitively intense business environments, whereas high market turbulence strengthens the performance impact of MO.

Key words:

Market orientation, innovation capability, financial performance, business context

INTRODUCTION

A number of strategic marketing scholars (e.g., Narver and Slater 1990; Jaworski and Kohli 1993; Hult, Ketchen and Slater 2005) have proposed that market orientation (MO) is a source of competitive advantage and superior firm performance. Recently, researchers have nevertheless voiced that MO might not be enough for enhanced performance and organizations need some facilitating or complementary mechanism to realize its potential value (e.g., Morgan, Vorhies and Mason 2009; Ketchen, Hult and Slater 2007; Baker and Sinkula 2005).

To this end, potential intervening mechanisms, such as responsiveness (Hult *et al.* 2005), innovation (Han, Kim and Srivastava 1998; Noble, Sinha and Kumar 2002), new product development (Langerak, Hulting and Robben 2007), marketing capabilities (Murray, Gao and Kotabe 2011), and other knowledge-related resources (Olavarrieta and Friedmann 2008), have been conceptually proposed and empirically tested. While empirical studies into the intervening mechanisms between MO and performance have dominated the field, few existing studies (Morgan *et al.* 2009; Menguc and Auh 2006; Baker and Sinkula 1999) have investigated potential complementarities to MO. This can be seen as an evident gap in MO literature, as empirical examination of potential synergies between MO and other strategic marketing concepts could help to explain the benefits of MO, which both academicians and managers would likely find relevant.

A few recent studies have continued the efforts of Baker and Sinkula (1999) and others in narrowing this gap and have examined potential synergies between MO and marketing capabilities (Morgan *et al.* 2009), and between MO and organizational innovativeness (Menguc and Auh 2006). Although these studies have extended the debate on performance implications of MO significantly, they are not without their limitations. Addressing these limitations, in turn, offer fruitful avenues for further contributions to the discourse. Additionally, business audience will be better equipped to realize the full potential of MO and organizational capabilities of the firm.

First, although Morgan *et al.* (2009) provided a solid analysis for the synergistic role of MO and marketing capabilities, they remain rather general. In doing so, their findings cannot offer concrete managerial implications with regard to individual capabilities. Instead, the authors concluded that a diverse set of marketing capabilities and MO complement one another in important ways (Morgan *et al.* 2009). Second, Menguc and Auh (2006) focused on examining the interaction between MO and organizational innovativeness and their level of detail was higher than that

of Morgan *et al.* (2009). What is also nice in their paper is their focus on synergies between marketing and innovation, which are arguably the two value-creating functions of a firm (Drucker 1954). However, their analysis – similar to Baker and Sinkula (1999) – lacks an activity component that would actualize the potential value that MO carries. As proposed by Baker and Sinkula (2005), MO should not be expected to influence market share and consequent business performance, unless it is coupled with complementary capabilities.

In this study, I take Morgan *et al.*'s (2009) analytical frame into more detail by focusing on only one organizational capability. Also drawing from Menguc and Auh (2006), I focus on an innovation-focused construct. Instead of studying innovativeness, however, my aim is to study the interplay between MO and innovation capability because innovation capability provides a theoretically sound means to capitalize a firms' possession of MO by developing market-driven innovations (Day 1994). At the same time, market-oriented organizational culture supports continuous development of innovation capability (e.g., Slater and Narver 1994b) and, thus, is likely to enhance the probability that a firm's offerings are in line with market needs. Consequently, the relationship between MO and innovation capability is intuitively synergistic and should be investigated accordingly.

In addition to empirical investigations of potential synergies, prior studies in strategic marketing lack detailed analyses of contextuality in terms of performance outcomes of orientations and capabilities (Priem and Butler 2001; Sirmon, Hitt and Ireland 2007). A number of recent calls have been made to focus on contextualities in future studies (e.g., Ramaswami *et al.* 2009; Krasnikov and Jayachandran 2008) to provide substantive managerial importance. Responding to these calls, and following Song *et al.* (2005), I account for environmental turbulence (Jaworski and Kohli 1993) as an external context with the potential to affect financial performance of MO and innovation capability. Additionally, I examine robustness of the results among firms with different market type (business-to-business (B-to-B) vs. business-to-consumer (B-to-C)) and offering type (product vs. service). These analyses extend to most empirical studies in strategic marketing and provide valuable insight to the external contexts in which performance implications of MO and innovation capability apply (cf. Sirmon *et al.* 2007).

This paper continues with a literature review that maps the theoretical background of key concepts of the study. Then, a series of hypotheses are developed, which also constitute a theoretical framework for the study. Thereafter, the resulting model is tested using structural equation

modeling. Finally, I conclude with a discussion of the implications of the present study for further research and managerial interest.

THEORETICAL BACKGROUND AND HYPOTHESES

Market Orientation, Innovation Capability, and Firm Performance

Following Narver and Slater (1990), I contend that MO is comprised of three behavioral components for value creation – customer and competitor orientations and inter-functional coordination – which are driven by a firm's organizational culture. Furthermore, as proposed in extant literature, market-based assets (e.g., MO) arise from the interaction of a firm and its environment (Day 1994) and play an important role in creating and sustaining shareholder value (Srivastava *et al.* 1998). Specifically, market-oriented culture is arguably a valuable asset in identifying and satisfying customer needs as well as differentiating a firm's offerings from those of its main competitors (Narver and Slater 1990).

These are among the reasons why MO has been proposed as a critical source of performance differentials (Narver and Slater 1990; Kohli and Jaworski 1990; Hult *et al.* 2005). Although Kumar *et al.*'s (2011) recent study suggests that MO is simply a 'hygiene factor' given the heavily competitive landscape firms face, the positive MO-performance link has been verified empirically in several meta-analyses (Kirca, Jayachandran and Bearden 2005; Ellis 2006; Cano, Carrillat and Jaramillo 2004). In line with this extensive and rather consistent evidence, the following hypothesis is posed:

> ***H1:*** *Market orientation is positively associated with a firm's financial performance.*

Innovation capability refers to the organization's ability to transform knowledge and ideas continuously into new products, processes, and systems to benefit the firm and its stakeholders (Lawson and Samson 2001). Once this capability is developed to a sufficient level, firms can successfully develop new products and services to meet customers' needs in different business contexts (Murray *et al.* 2011; Hooley *et al.* 2005; Gatignon and Xuereb 1997). As such, it holds potential to improve a firm's

ability for superior value creation (Drucker 1954). Researchers have argued that this results in competitive advantage and superior business performance (Hurley and Hult 1998; Baker and Sinkula 2005; Hooley *et al.* 2005; Ramaswami *et al.* 2009).

A number of studies have also shown that some forms of innovation capability, capacity to innovate and introduce products and services or processes (Olavarrieta and Friedmann 2008; Hult, Hurley and Knight 2004), NPD capability (Murray *et al.* 2011), and R&D effectiveness (De Luca, Verona and Vicari 2010), enhance business performance. Notably, researchers have demonstrated that technological and process innovation capabilities affect performance (e.g., Hurley and Hult 1998; Hooley *et al.* 2005; Krasnikov and Jayachandran 2008). Following the extant literature, I hypothesize:

> ***H2:*** *Innovation capability is positively associated with a firm's financial performance.*

Complementarity of Market Orientation and Innovation Capability

Roles of MO and innovation capability as potential drivers of firm performance have been popular topics in marketing literature. However, most researchers limit themselves either to investigating direct performance effects of these constructs (e.g., Narver and Slater 1990; Hooley *et al.* 2005) or examining innovation capability as a mediator between MO and business performance (e.g., Hult *et al.* 2004; Langerak, Hultink and Robben 2007). Likewise, recent studies (Morgan *et al.* 2009; Atuahene-Gima 2005) have proposed that MO and innovation capability might be complementary (i.e., MO and innovation capability could result in an effective resource combination and hold potential for synergistic performance impact; Song *et al.* 2005). Given these propositions, direct effects and mediated models are likely to offer an oversimplified representation of reality; therefore, an interaction approach (or some other approach that accounts for the combined effect of MO and innovation capability) should be used.

A number of studies have supported the value of complementary assets (e.g., Tripsas 1997; Teece 1986). More evidence for the potential complementarity between MO and innovation capability is also identified in extant literature. Kirca *et al.* (2005) and Srivastava *et al.* (1999) proposed that the impact of innovation capability on performance might be contingent on the presence of information of the external environment,

which stimulates a firm to compete in a certain way, and helps design and develop superior new products that meet market needs. In addition, market-oriented firms seem to be good at allocating resources for innovation competencies (Atuahene-Gima 2005; Hurley and Hult 1998) and in devising and adapting products and processes that continuously meet the needs of the evolving market (Hult *et al.* 2004). In other words, the effectiveness of innovation capability may depend heavily on the firm's level of MO (Grinstein 2008; Slater and Narver 1994b; Song and Parry 1992).

Firms also need to develop a certain degree of internal knowledge and ability to anticipate the value of and apply the insights from being market-oriented (Cohen and Levinthal 1990). Following this line of reasoning, Slater and Narver (1994) identified that innovation capability could be a core capability to convert MO into improved organizational performance. More recently, their suggestion gained empirical support (e.g., Langerak *et al.* 2007; Hooley *et al.* 2005). In conclusion, MO may provide little or no value to achieve financial performance objectives of the firm without a strong innovation capability. On the contrary, it can then be deemed as a cost without concrete benefits and performance improvements for a company. Based on the above, the following hypothesis is posed:

> ***H3:*** *The interaction between (i.e., complementarity of) market orientation and innovation capability is positively associated with a firm's financial performance.*

Moderating Effects of Market Turbulence and Competitive Intensity

Literature in strategic marketing suggests that, to improve business performance, a firm needs different assets and capabilities in stable environments compared to those needed in turbulent, fast-changing environments (e.g., Eisenhardt and Martin 2000; Hult *et al.* 2004). In other words, value creation, based on MO and innovation capability, is likely to be contingent on a firm's external environment (Sirmon, Hitt and Ireland 2007).

Empirical studies have also identified that an external business context moderates performance implications of MO and innovation capability. Although the results are inconclusive, several scholars (e.g., Slater and Narver 1994a; Harris 2001) have found that market turbulence strengthens the MO–performance relationship. One potential explanation for this is that market-oriented firms are superior in responsiveness to the customer

knowledge (Han *et al.* 1998) that is needed in such an environment. Responsiveness to customer needs can be argued to be especially important under highly turbulent market conditions because switching costs are usually rather low.

Furthermore, most prior studies have suggested a positive or non-significant moderation for competitive intensity (Kirca *et al.* 2005), which might also stem from the importance of responding rapidly to competitive moves and knowing how to differentiate a firm's offering from those of competitors, especially under intense competition. Building and maintaining a market-oriented culture is not without its costs (cf. Kumar *et al.* 2011); however, when market needs change rapidly and when competition is fierce, these costs are likely to be lower than its potential value added. Thus, it is hypothesized that:

> ***H4a, b:*** *The relationship between market orientation and a firm's financial performance is positively moderated (i.e., strengthened) by a) market turbulence, and b) competitive intensity.*

High market turbulence, characterized by a rapidly changing market composition and customer preferences, may also force a firm to modify its products and services more often than it would during a stable market (Hult *et al.* 2004). This would result in increased importance of innovation capability in comparison to a stable market situation (Han *et al.* 1998; Olavarrieta and Friedmann 1999). Low switching costs also increase the potential benefits of strong innovation capability concerning sales and profitability. Conversely, predicting consumer needs becomes very difficult in a highly turbulent market and responding to changes through innovation may result in less fruitful outcomes (Gao, Zhou, and Yim 2007) because of, for instance, a firm missing its window of opportunity.

How successful a firm's product and service development is also depends on the competitive environment in which the firm operates (Langerak, Peelen, and Commandeur 1997). When a firm faces intense competition, strong innovation capabilities might enable a firm to break away from low margins if it succeeds in differentiating its offerings from those of its competitors. As such, the positive profit impact might outweigh the costs of developing or refining innovation capabilities. However, the company might not improve profitability overnight. Drawing on previous literature, this following hypothesis is posed:

> ***H5a, b:*** *The relationship between innovation capability and a firm's financial performance is a) negatively moderated (i.e., diminished) by market*

turbulence, but b) positively moderated (i.e., strengthened) by competitive intensity.

Robustness of the results

Concerning other contextual characteristics included in this study (manufacturing vs. service businesses, and B-to-B vs. B-to-C markets), the meta-analysis of Krasnikov and Jayachandran (2008) did not find any moderating effects in the capability–performance relationship. Conversely, Kirca *et al.*'s (2005) meta-analysis revealed that the MO–performance relationship is stronger in manufacturing firms than it is in service companies, perhaps because MO is likely to be integral to service firms because of the higher levels of customization required by them. Thus, in a sense, MO could be seen as a 'hygiene factor' in service firms and a success-producing approach in manufacturing firms (Varadarajan 1985). However, Kirca *et al.*'s findings oppose those of Cano *et al.* (2004); therefore, further empirical evidence is needed. Similarly, no studies have compared the differences between B-to-B and B-to-C markets in the MO-financial performance link.

In absence of a sufficiently consistent theoretical basis or empirical evidence, robustness of the findings is examined exploratively. In particular, I aim to check whether the core results of this study are robust in terms of the market type in which a firm operates (B-to-B vs. B-to-C) and in terms of a firm's offering type (product vs. service).

METHODOLOGY

Sample

To test the literature-based hypotheses, an empirical study was performed. The data used in this study was gathered in the spring of 2010 by a pre-tested web-based questionnaire, which surveys small, medium, and large firms in business and consumer products and services in Finland. The sampling frame was drawn from a commercial provider's database and the questionnaire was targeted at top management of Finnish companies with over five employees. Three mailings sent yielded 1,023 usable responses, which refers to a response rate of 10.9 %. Considering the length of the

questionnaire and the seniority of respondents, this was deemed satisfactory (cf. e.g., Hooley *et al.* 2005). A brief description of the sample is presented in Table 1.

Within our sample, firms were slightly more product-oriented (50.4%) than service-oriented (49.6%) and operated more within the B-to-B (69.9%) than the B-to-C sector (30.1%). Moreover, most sample companies were small or middle-sized and operated in either growing or mature markets, whereas a reasonably even spread of different market positions was found. An extrapolation procedure was used to assess non-response bias (Armstrong and Overton 1977). No significant differences were found between early and late respondents on the measurement items. This finding suggests that non-response bias was not a likely problem in the present study.

Table 1 Sample description

Characteristic	% of sample	Characteristic	% of sample
Product/service type		Market position	
Consumer goods	19.3 %	Market leader	29.5 %
Industrial goods	29.9 %	Market challenger	38.1 %
Consumer services	9.0 %	Market follower	32.4 %
Industrial services	41.7 %	Turnover (million EUR)	
Phase of market life cycle		> 2	23.7 %
Emerging	11.7 %	2-10	31.5 %
Growth	41.6 %	10-100	27.5 %
Mature	37.6 %	100-500	9.0 %
Declining	9.0 %	> 500	8.3 %

Measurement

All measurement scales were drawn from extant research. First, I used Narver and Slater's (1990) 15-item scale to measure MO. Second, for innovation capability, an established measurement scale was not available despite the somewhat strong foothold of this concept in extant literature. Consequently, the scale was built primarily on Vorhies and Morgan's (2005) and Chen's (2009) measurement items. Third, measurement items for financial performance were drawn from Hooley *et al.* (2005) and Reimann *et al.* (2010). Specifically, subjective measures were used as they provided more flexibility than objective measures in capturing complex dimensions of performance (González-Benito and González-Benito 2005) when different types of firms and industries were included in the data set. Fourth, items for market turbulence and competitive intensity, as

dimensions of environmental turbulence, were adopted directly from Jaworski and Kohli (1993). Finally, firm size (as measured by turnover) and two dummies, offering type (products vs. services) and market focus (B-to-B vs. B-to-C), were used as control variables in the general empirical model. The latter two were also used in grouping firms for subsequent sub-sample analyses.

Reliability and Validity

Following data collection, the dimensionality, reliability, and validity of the scales were assessed in a confirmatory factor analysis (CFA) using LISREL (Jöreskog and Sörbom 2005). The final CFA model resulted in adequate levels of unidimensionality and good general fit with the data: root mean square of approximation (RMSEA) = .044; goodness of fit index (GFI) = .96; comparative fit index (CFI) = .98; and non-normed fit index (NNFI) = .97. All measurement items and corresponding standardized loadings from the final model are presented in Appendix A.

Reliability measures and the correlation matrix for the latent variables are shown in Table 2. Specifically, all composite reliabilities (CR) and average variances extracted (AVE) were above or just below the generally accepted thresholds of .60 and .50, respectively (Diamantopoulos and Siguaw 2000). Moreover, sufficiently high factor loadings (threshold .60) and CRs suggest high convergent validity. To prove discriminant validity of the model, we used Fornell and Larcker's (1981) procedure and, accordingly, compared the square root of the AVE for a given construct to the absolute value of the standardized correlation of the given construct with any other construct in the analysis. All square roots of the AVE were greater than the corresponding correlations (Table 2), which lends support for sufficient discriminant validity (Fornell and Larcker 1981).

Table 2 Means, standard deviations, construct reliability and validity, and correlations

					Correlations				
Construct	**Mean**	**S.D.**	**CR**	**AVE**	**1**	**2**	**3**	**4**	**5**
1. Market orientation	5.31	.94	.84	.46	**.68**				
2. Innovation capability	4.52	1.06	.79	.48	.48	**.69**			
3. Market turbulence	4.32	1.42	.74	.61	.15	.15	**.78**		
4. Competitive intensity	3.83	1.33	.63	.46	.07	.07	.47	**.68**	
5. Financial performance	4.37	1.45	.97	.91	.17	.30	.02	.01	**.95**

S.D. = Standard deviation; CR = Composite reliability; AVE = Average variance extracted
Square-root of average variance extracted (AVE) on the diagonal in bold; correlations off-diagonal

To assess common method bias, Harman's one-factor analysis was used. An unrotated principal components factor analysis identified five factors that explained 69% of the total variance, of which the first factor accounted for 26%. Thus, no single factor accounted for more than half of the variance in the data, which suggests that common method bias was not a threat to the validity of the findings (Podsakoff and Organ 1986). Taking all the above statistics into consideration, a set of sufficiently robust measures in terms of reliability and validity was provided.

RESULTS

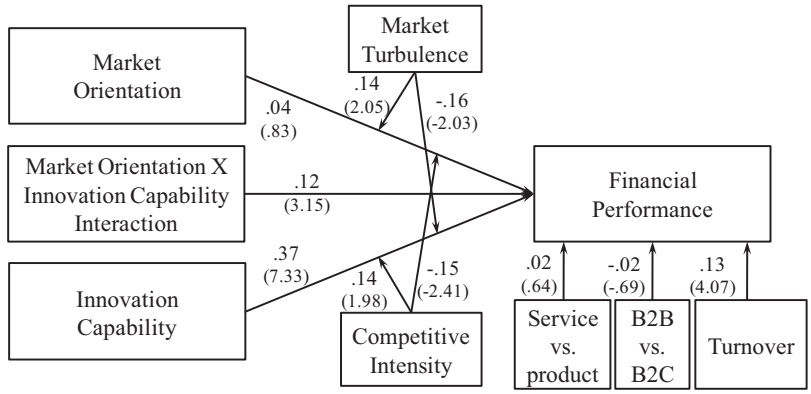
To reveal the potential interaction between MO and innovation capability, and the moderating effects of environmental turbulence, I used structural equation modeling in LISREL. Maximum likelihood and covariance matrix estimation procedure were used.

Market orientation, innovation capability, and financial performance

The key results (in Figure 1) indicate that, in the presence of the other antecedents, the direct effect of MO on financial performance was insignificant ($\beta = .04$; $t = .83$). Thus, hypothesis H1 was not supported. This is surprising, given the meta-analytical findings (e.g., Kirca *et al.* 2005) that support the positive performance link. However, the result might refer to what Kumar *et al.* (2011) coined as 'the cost of competing.' In other words, firms may not be able to stand out from others because of superior MO due to increasing amount of companies becoming market-oriented; however, it can still help a firm remain competitive and prevent it from costly failures. On the other hand, innovation capability had a positive impact on financial performance ($\beta = .37$; $t = 7.33$), which is in line with extant research. Hence, strong support for hypothesis H2 was provided. The results also support the view that organizational capabilities – such as innovation capability – can explain more performance than can resources, such as market-oriented culture (Newbert 2007).

Furthermore, in support of hypothesis H3, the interaction between MO and innovation capability positively affected financial performance ($\beta = .12$; $t = 3.15$). Thus, it seems that a synergistic relationship between the two

exists and, particularly, that MO positively moderates the relationship between innovation capability and financial performance. This might be because a strong MO tends to improve a firm's knowledge of its customers and competitors, which can provide a strong foundation for enhanced success rates of innovative activities. Only one control variable, firm size in terms of turnover, was statistically significantly (positively) related to financial performance. The model explains 13.3 % of firm financial performance.



Model fit: $\chi^2(24) = 36.46$; $p = .05$; RMSEA = .023; GFI = .995; CFI = .997; NNFI = .988

Figure 1 Key findings of the study

To gain further insight into these relationships, using the unstandardized coefficients and following procedures outlined by Aiken and West (1991), I plotted the interaction and conducted a simple slope test. The simple slope test involved splitting the moderator (market orientation) into a high group (one standard deviation above the mean) and a low group (one standard deviation below the mean) and re-estimating the relationship between innovation capability and financial performance. The plot in Figure 2 illustrates that, when market orientation is high, the positive relationship between innovation capability and financial performance is stronger (simple slope: $\beta = .96$, $t = 3.04$, $p = .002$) than when it is low (simple slope: $\beta = .78$, $t = 3.54$, $p < .001$).

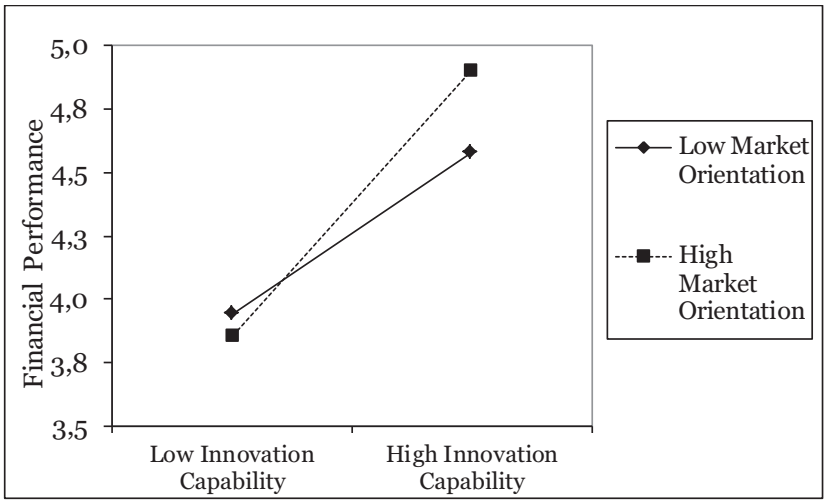


Figure 2 Interaction of innovation capability and market orientation on financial performance

Moderating effects of environmental turbulence

I then focused on environmental turbulence and found that all examined moderating effects were statistically significant (see Figure 1). Thus, I found strong evidence for the context-specificity of MO and innovation capability performance implications. Specifically, findings revealed that high market turbulence strengthened (β = .14; t = 2.05) the MO–financial performance relationship so it became statistically significant. This may be because market-oriented organizational culture allowed timely reactions to changes in the marketplace. Thus, support for hypothesis H4a was provided. However, under intense competition, MO affected performance negatively (β = -.15; *t* = -2.41). This finding, which does not support hypothesis H4b, might suggest that, when price is an important factor, firms cannot gain full benefit from their MO and it might become an expense (cf. Kumar *et al.* 2011).

In terms of the relationship between innovation capability and financial performance, the opposite applies; under high market turbulence, the relationship becomes weaker (β = -.16; *t* = -2.03), while competitive intensity strengthens (β = .14; *t* = 1.98). As such, hypotheses H5a and H5b were supported. The first finding proposed that even good innovations might fail in providing enough value-added for the customer if, generally speaking, customer needs and wants change rapidly and changes are difficult to predict. Under such circumstances, firms might easily fail to meet the expectations of current customers or act too late and, therefore,

miss good business opportunities. The latter finding suggests that innovation capability is a good means to differentiate and improve margins and, consequently, increase competitive advantage and superior performance outcomes when competition is fierce.

Robustness of the findings: market focus and offering type

Finally, I examined the robustness and context-specificity of the above results with regard to a firm's market (B-to-B vs. B-to-C) and offering type (products vs. services). To simplify the interpretability of the findings, I did not build three-way interaction terms; rather, I examined several direct effects and two-way interactions in four specific contexts. This approach is analogous with that of Ramaswami *et al.* (2009). The results in Table 3 show that, in line with the suggestions of Krasnikov and Jayachandran (2008), the positive performance implications of innovation capability was a robust finding in all contexts. Moreover, the results suggest that MO affects financial performance positively in B-to-B markets, but neither within B-to-C markets nor other specific contexts of the study. This might reflect, at least partly, the proposition that B-to-B markets are more relationship-driven than are B-to-C markets (e.g., Zinkhan 2002); therefore, being well aware of customers' wants pays off. Accordingly, my previous finding of a MO non-significantly affecting performance was not entirely robust.

Additionally, different from the main results of the present study, the analysis indicated that the MO-innovation capability interaction only enhanced firm financial performance in B-to-B markets and service businesses. A potential explanation for the first finding is that business buyers are typically more knowledgeable about the products or services they intend to purchase than are consumers whose purchasing decisions are based on emotional and social criteria (Ellis 2010, 37-40). That is why innovations should meet the needs and requirements of business customers more closely than the needs of consumers. When it comes to positive performance implications of MO-innovation capability interaction in service-focused firms, the results can be understood by placing importance on R&D activities as a 'satisfier' in a new service context; in new product context, those are more likely to be 'hygiene factors' (Nijssen *et al.* 2006).

Also in terms of the moderating effects of environmental turbulence, the results are not robust. Specifically, the interactions between MO and turbulence dimensions are statistically significant only in B-to-B markets and product businesses, whereas those between innovation capability and

turbulence dimensions are significant only in product businesses. The directions of all statistically significant interactions are in line with the results from the full sample analysis. Taken together, the findings of this study propose that the effects of strategic marketing on performance are highly contextual.

Table 3 Sub-sample analysis of robustness

Dependent variable = Financial Performance				
Predictor variable	**Market focus**		**Offering type**	
	B-to-B	**B-to-C**	**Products**	**Services**
	β (*t*-value)	**β (*t*-value)**	**β (*t*-value)**	**β (*t*-value)**
Market orientation (MO)	**.14 (2.39)**	-.20 (-1.49)	-.03 (-.39)	.12 (1.75)
Innovation capability (IC)	**.29 (5.24)**	**.62 (4.34)**	**.54 (6.41)**	**.26 (3.59)**
Market turbulence (MT)	**-.19 (-2.33)**	-.06 (-.48)	-.16 (-1.75)	.20 (1.40)
Competitive intensity (CI)	.05 (.60)	.04 (.29)	.14 (1.50)	**-.34 (-2.20)**
MO * IC	**.13 (2.93)**	.09 (1.18)	.03 (.52)	**.23 (3.97)**
MO * MT	**.18 (2.26)**	.06 (.30)	**.34 (2.36)**	.02 (.16)
MO * CI	**-.19 (-2.26)**	-.10 (-.63)	**-.33 (-2.50)**	-.08 (-1.05)
IC * MT	-.06 (-.67)	-.20 (-1.00)	**-.38 (-2.30)**	-.01 (-.08)
IC * CI	.02 (.23)	.21 (1.41)	**.36 (2.36)**	.03 (.44)
R^2	**0.158**	**0.193**	**0.175**	**0.168**

To facilitate interpretation, although control variables (firm size, offering type (for the first analysis), and market focus (for the second analysis) were used in the above regression models, their coefficients are not reported in this table. Most control variables were non-significant.

DISCUSSION

Theoretical Implications

A majority of previous research (e.g., Kirca *et al.* 2005) has suggested that a firm's level of MO can explain differences in business performance between companies. However, prior studies are predominantly limited to examining MO performance effect either directly or through mediating mechanisms, whereas less attention has been paid to potential complementarities in the MO-performance relationship (Morgan *et al.* 2009; Song *et al.* 2005; Moorman and Slotegraaf 1999). Lack of such evidence is both surprising and unfortunate because resource-based theory (Dierickx and Cool 1989; Barney 1991) claims that complementary resources may enjoy synergistic performance impacts. Therefore, in this study, I shed light on the combined

performance implications of MO and a firm's innovation capability. Moreover, I have made an effort to identify business contexts that either boost or diminish their performance effects. Specifically, the present study contributes to literature in MO and organizational capabilities in three main ways.

First, although an increasing amount of studies have focused on mediators and moderators in the MO-performance relationship, synergistic effects of MO and substantive strategic marketing constructs remain largely unexplored. Furthermore, some studies that have focused on such synergies (Morgan *et al.* 2009; Menguc and Auh 2006; Baker and Sinkula 1999) have evident limitations that were addressed in this study. Specifically, I focus on the interplay between MO and innovation capability to 1) avoid providing overly generic implications (cf. Morgan *et al.* 2009) and 2) consider an action component, instead of another organizational orientation (cf. Menguc and Auh 2006; Baker and Sinkula 1999), that might convert the value of MO into superior business performance (Ketchen *et al.* 2007).

In line with Morgan *et al.* (2009), my first key finding suggests that MO and innovation capability can result in synergistic performance outcomes. Thus, while innovation capability is an important and direct driver of performance, it also appears to be a necessary complement in the MO-performance link. Alternatively, MO might be a key mechanism by which firms can reap the benefits of their innovation capabilities (Atuahene-Gima 2005; Teece *et al.* 1997), although MO, itself, surprisingly does not directly influence financial performance. Taken together, MO is essentially a moderator in the innovation capability–financial performance relationship. This might be the case because high MO is likely to improve the probability of a firm hitting the market with an innovation that satisfies customers' needs. Additionally, even if a firm's competitors can imitate its new product or service, they remain unable to gain competitive advantage from the imitation if they do not have the necessary complementary assets (e.g., MO; Christmann 2000).

Second, responding to a number of recent calls to examine the contextuality of strategic marketing's performance implications (Sirmon *et al.* 2007; Krasnikov and Jayachandran 2008; Ramaswami *et al.* 2009), this study investigated moderating performance effects of market turbulence and competitive intensity. While the findings from prior literature are inconclusive, the present study suggests that the importance of MO and innovation capability varies according to the level of environmental dynamism. In particular, consistent with Hult *et al.* (2004), market turbulence seems to reinforce the impact of MO, which suggests that sensing the market pays off. However, it might also result in ineffectiveness

in innovation capability, perhaps because of resource commitments to wrong innovative activities and R&D projects or because of missing time windows of changing customer needs and preferences. Moreover, a firm with strong innovation capabilities seems able to neutralize its rivals' competitive actions and make superior profits under high competitive intensity. On the contrary, competitive intensity might diminish the value of MO and instead promote firms with high operational efficiency focus. This could stem from slim margins in a heavily competed market and costs related to developing a strong MO (Kumar *et al.* 2011).

Third, in addition to examining the moderating effects of environmental turbulence, this paper extended several strategic marketing studies in testing whether findings are robust in regard to a firm's market (B-to-B vs. B-to-C) and offering (product vs. service) types. Findings from these analyses suggest that all performance effects examined (innovation capability–performance relationship being the only exception) are context-dependent with regard to industry type. For instance, the interaction between MO and innovation capability was statistically significant in only two of the four contexts: in B-to-B markets and service-focused firms. Additionally, the positive performance effect of MO was significant in B-to-B markets and marginally significant in service companies. Still, it was found that the turbulence-moderated MO-performance and innovation capability-performance relationships were contingent with respect to market and offering types. Thus, it is concluded that the propositions drawn from the general model were somewhat misleading in arguing that MO is not a source of performance differentials. Importantly, this could also be the case with several empirical studies in extant MO literature. What would then be needed is a detailed analysis that considers different contextual characteristics.

Managerial Implications

From the managerial perspective, the current findings emphasize that MO and innovation capability result in synergistic performance outcomes. In other words, innovation capabilities offer an important means to capitalize on a firm's MO (cf. Morgan *et al.* 2009) while, simultaneously, MO contributes to building and refining an innovation capability that is a source of performance differentials between firms. Organizations without the capacity to innovate may invest time and resources to study markets; however, they remain unable to translate this knowledge into practice. Therefore, firms need an action component to realize the potential value of

their market-oriented organizational culture. Although the findings suggest that innovation capability leads to superior performance, even on its own MO strengthens its performance implications.

Moreover, the current findings challenge the general robustness assumption in performance implications that are present in vast majority of marketing and strategic management studies (e.g., Priem and Butler 2001). At the same time, they provide more specific and managerially meaningful conclusions (Song *et al.* 2005).

Finally, our findings of environmental contingency suggest that systematic efforts are necessary to track market changes, develop new, and refine existing resources and capabilities for the current environment. For example, the combination of high MO and strong innovation capability does not consistently lead to high financial performance. Rather, this seems to hold true only in certain market contexts (B-to-B and services). Furthermore, innovation capability gains momentum in competitively intense business environments, whereas high market turbulence strengthens the performance impact of MO. On the other hand, it seems that high competitive intensity diminishes the contribution of MO to financial performance. This might stem from MO being a 'cost of competing' (Kumar *et al.* 2011; Zhou *et al.* 2007). In light of the current results, firms should adjust their marketing resources and capabilities to the market they operate in, as performance implications vary significantly between B-to-B and B-to-C markets and between product and service markets.

Limitations and Directions for Future Research

Certain limitations in the present study should be acknowledged. The limitations, nevertheless, provide several fruitful avenues for future research. Firstly, given that the cross-sectional data in this study was collected from Finnish companies, generalizations and cause-effect inferences should be drawn with caution. Likewise, international replications and longitudinal analysis are warmly welcomed. Secondly, this study only considered two dimensions of strategic marketing, MO and innovation capability. Although this is also one of the strengths of this study, future research could focus on comprehensive combinations of strategic marketing factors and possibly apply a configurative approach (Fiss 2007) to examine performance implications. More explicitly, other marketing capabilities, such as customer-linking capability (Day 1994) or pricing capability (Dutta *et al.* 2003), and marketing resources, such as

learning orientation (Sinkula *et al.* 1997), could be analyzed. Nevertheless, one should be careful not to simply replicate the Vorhies and Morgan's (2005) study and provide too general of implications for theory and practice.

Future research could additionally distinguish between reactive and proactive MO (Narver *et al.* 2004) and consider MO as a multi-dimensional concept (Narver and Slater 1990; Kohli and Jaworski 1990). Moreover, provided our promising results that demonstrate clear contingencies in factors that contribute to financial performance, future studies could take this path further and investigate different contexts on an even more detailed level. For this purpose, different environmental conditions, firm characteristics (size, age, structure) and specific industries could be examined. Such analyses would respond to a number of calls (e.g. Priem and Butler 2001; Sirmon *et al.* 2007; Ramaswami *et al.* 2009) to empirically verify whether and – if so – in what ways superior performance from strategic marketing is contingent on firm-specific or business environmental factors.

Appendix A Measurement items and standardized loadings

Source	Construct	Items	St.loading
Narver & Slater (1990)	Market Orientation[a]	1. We constantly monitor our level of commitment and orientation to serving customers needs.	.65
		2. We freely communicate information about our successful and unsuccessful customer experiences across all business functions.	.61
		3. Our strategy for competitive advantage is based on our understanding of customers needs.	.70
		4. All of our business functions are integrated in serving the needs of our target markets.	.71
		5. Our business strategies are driven by our beliefs about how we can create greater value for our customers.	.72
		6. All of our managers understand how everyone in our business can contribute to creating customer value.	.68
Adapted from Vorhies & Morgan (2005); Chen (2009)	Innovation Capability[b]	1. Ability to develop new product/service ideas.	.72
		2. Exploitation of new business models.	.70
		3. Rapid commercialization of ideas.	.71
		4. Ability to successfully launch new products/services.	.64
Jaworski and Kohli (1993)	Market Turbulence[a]	1. In our kind of business, customers' product preferences change quite a bit over time.	.76
		2. Our customers tend to look for new products all the time.	.80
Jaworski and Kohli (1993)	Competitive Intensity[a]	1. There are many "promotion wars" in our industry.	.61
		2. One hears of a new competitive move almost every day.	.73
Hooley *et al.* (2005); Reimann *et al.* (2010)	Financial Performance[c]	1. Profit / profit margins relative to main competitors.	.89
		2. Return on investment (ROI) relative to main competitors.	.99
		3. Return on assets (ROA) relative to main competitors.	.97

[a] Seven-point scale ranging from 1 = "strongly disagree" to 7 = "strongly agree"

[b] Seven-point scale ranging from 1 = "strong competitor's advantage" to 7 = "our strong advantage"

[c] Seven-point scale ranging from 1 = "much worse" to 7 = "much better"

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Essay IV

Matti Jaakkola, Jukka Luoma, Johanna Frösén, Jaakko Aspara and Henrikki Tikkanen

The Contingency Value of Market-based Capabilities: A Configurational Approach

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The Contingency Value of Market-based Capabilities: A Configurational Approach

Abstract

The current body of research has found that the value of individual market-based capabilities may be contingent on other capabilities, as well as on environmental and organizational factors (e.g., environmental turbulence, organizational culture). Although most empirical studies have limited their examination to direct effects or two-way interactions, the performance effects of market-based capabilities are likely to be causally more complex. To address this gap, we employ a configurational approach to investigate which market-based capabilities (i.e., innovation capability and customer-linking capability), organization-culture factors, and environmental conditions *in combination* affect financial performance. We identify several parallel combinations associated with good financial performance, and find that the complementarity of market-based capabilities is contingent on both organizational and environmental factors. We then conclude that the causal mechanisms linking market-based capabilities to performance are complex and non-reducible to the two-way interactions identified by prior research. Compared to traditional methodologies, our configurational analysis provides significant value added for the empirical examination of these complex causalities.

Key words:

Market-based capability; Organizational culture; Environmental turbulence; Configuration; Performance

INTRODUCTION

Over the years, strategic marketing research (e.g., Ramaswami, Srivastava and Bhargava 2009) has provided sound evidence that market-based capabilities such as innovation capability (Lawson and Samson 2001) and customer-linking capability (Day 1994) are associated with superior firm performance (e.g., Rapp, Trainor and Agnihotri 2010; Hooley et al. 2005; Hult, Hurley and Knight 2004). In general, this relationship is explained by the fact that market-based capabilities enable the firm to create unique value for its customers (Day 1994). As these capabilities are also slow to develop, and therefore hard to copy, they provide unique resources and value for the firm (cf. Dierickx and Cool 1989).

Different moderators may strengthen, weaken, or even reverse the effects of market-based capabilities on firm performance. The current body of research has found the value of market-based capabilities to be contingent on, for instance, environmental (e.g., Amit and Schoemaker 1993; Song et al. 2005) and organizational (e.g., Morgan et al. 2009) factors. Moreover, the interplay between the different market-based capabilities has also been found to result in synergistic value and performance outcomes (e.g., Moorman and Slotegraaf 1999; Dutta, Narasimhan and Rajiv 1999). Despite these very interesting findings, we still know relatively little about how the firm's market-based capabilities and various contingency factors, considered as a whole, affect business performance (cf. Amit and Schoemaker 1993).

In other words, we lack information on how a firm should configure its market-based capabilities so that they fit together, and so that they fit with environmental conditions and organizational factors. We propose that the focus of earlier research on simple independent effects or two-way interactions has been largely due to methodological constraints. Essentially, we argue that there may be higher-order interactions among the key concepts of our study (Venkatraman 1989; cf. Meyer, Tsui & Hinings 1993) that still remain largely unrevealed. In this study, we address this shortcoming by developing a configuration theory of how market-based capabilities affect performance.

Recent methodological accomplishments in the configurational approach to organizational research (Fiss 2011; cf. Porter and Siggelkow 2008) allow us to address the complexity of the relationships between market-based capabilities in more detail and depth. The method we use to study configurations is fuzzy set qualitative comparative analysis (fsQCA) (Ragin 2000; Ragin 2008; Fiss 2011), a relatively new method for studying organizational configurations. The method overcomes some limitations of

the traditionally used statistical techniques, such as regression analysis of interaction terms (problems in interpretability of higher-order interactions and assumptions of normality and linearity, etc.). In this study, the fsQCA method enables us to investigate which combinations of market-based capabilities and given contingency factors are sufficient (vs. necessary) to bring about good performance. At the same time, it recognizes that there may be several parallel combinations that lead to this outcome.

THEORETICAL FRAMEWORK

Market-based Capabilities and their Performance Implications

Customer-linking capability and innovation capability are market-based capabilities that refer to bundles of skills and processes that determine the firm's ability to produce value for customers in a specific market (Grant 1996; Day 1994). More specifically, *customer-linking capability* refers to creating and managing customer relationships (Day 1994). It is comprised of "the skills, abilities, and processes needed to achieve collaborative customer relationships so individual customer needs are quickly apparent to all functions and well-defined procedures are in place for responding to them" (ibid., 49). *Innovation capability*, in turn, is defined as "the ability of the organization to continuously transform knowledge and ideas into new products, processes, and systems" (Lawson and Samson 2001, 384).

The two capabilities are often cited as keys to competitive success: creating/maintaining profitable customer relationships at a given point in time and maintaining/developing an attractive offering over time (Teece 1986; Song et al. 2005). Furthermore, market-based capabilities are slow to develop, making it difficult to copy them from rivals (cf. Dierickx and Cool 1989). For this reason, a firm with strong market-based capabilities is also expected to exhibit and sustain superior performance. Consistent with these notions, a number of empirical studies have demonstrated that innovation capability and customer-linking capability are, indeed, positively associated with superior firm performance (e.g., Langerak, Hultink and Robben 2007; Rapp et al. 2010; Hooley et al. 2005).

Nevertheless, extant studies have mostly neglected the potential complementarities (and non-complementarities) between innovation capability and customer-linking capability, which might result in performance outcomes beyond their independent effects (cf. Dutta et al.

1999; Moorman and Slotegraaf 1999). To start with, these capabilities may interact to achieve synergistic complementarity in two primary ways. On the one hand, a firm's ability to continuously develop new products and offerings is likely to enhance its ability to attract new and keep existing customers (Kirca et al. 2005). On the other hand, close relationships with customers enable the firm to acquire knowledge about changing customer needs and to better 'fit' the firm's offerings with these needs (cf. Ernst et al. 2011; Dutta et al. 1999). Therefore, the combination of strong customer-linking capability and strong innovation capability should help ensure that the firm's offerings constantly correspond to customers' needs and that the firm remains attractive to customers.

However, it is costly to allocate resources into developing and sustaining both capabilities simultaneously (Winter 2003). Consequently, while such companies might enjoy synergistic performance effects and be in a strong competitive position, firms with strong customer-linking capability *and* strong innovation capability might also experience inferior financial performance (cf. Winter 2003). Reflecting this notion, it is important to identify the contextual conditions that favor the development of either one or both of the capabilities. Drawing on Amit and Schoemaker's (1993) seminal work, we argue that both internal and external factors should receive focus, and that organizational culture and environmental turbulence are key factors in determining the extent to which these capabilities complement versus substitute each other. By simultaneously accounting for organizational and environmental contingencies, which may affect the performance outcomes of market-based capabilities, we extend prior capability complementarity studies (Moorman and Slotegraaf 1999; Dutta et al. 1999; Song et al. 2005).

Organizational Culture as an Internal Contingency Factor

Organizational culture can be considered an important driver of firm performance, as it guides employee behavior through norms, values and assumptions (Schein 1996; Fiol 1991). In this study, we consider two central aspects of organizational culture: market orientation (Narver and Slater 1990; Kumar et al. 2011) and learning orientation (Sinkula, Baker and Noordewier 1997; Bell, Whitwell and Lukas 2002). The widely studied *market orientation* (Narver and Slater 1990) describes an organizational culture that reflects the marketing concept (Drucker 1954; Houston 1986) in its focus on the continuous creation of superior customer value through customer orientation, competitor orientation and inter-functional

coordination. *Learning orientation* (Sinkula et al. 1997), in turn, refers to a firm-specific culture that gives "rise to that set of organizational values that influence the propensity of the firm to create and use knowledge" (ibid. 1997, 309), comprising commitment to learning, open-mindedness, and shared vision.

Both market and learning orientation essentially deal with how organizational members relate themselves to the market as part of the organization (Slater and Narver 1995; Bell et al. 2002). More specifically, a market-oriented culture supports collaborative efforts to create, share, and integrate information about customers and competitors; whereas learning orientation is needed to translate market intelligence into enhanced capabilities to serve customers' changing needs and wants (Slater and Narver 1999; Sirmon, Hitt and Ireland 2007; Verona 1999; Hult et al. 2004). Together, the two orientations have been considered to reflect a firm's *market-based learning culture* (Sinkula et al. 1997; Baker and Sinkula 2002).

A strong market-based learning culture can reduce risks related to innovation (capability) and enhance customer-linking (capability) by ensuring organizational responsiveness to changes in the marketplace (Baker and Sinkula 1999). In practice, this is likely to occur because a strong market-oriented culture component increases the probability that a firm's capabilities add value to the customer (Kyriakopoulos and Moorman 2004; Morgan et al. 2009), while the learning culture component drives constant development of these capabilities (Sinkula et al. 1997). Empirical studies have fairly consistently found both market orientation and learning orientation to enhance the value of market-based capabilities (e.g., Paladino 2008; Hooley et al. 2005; Han, Kim and Srivastava 1999; Calantone et al. 2002; Hult et al. 2004).

A strong market-based learning culture may also leverage the synergies between customer-linking capability and innovation capability, because it provides a unifying frame of reference that enables disparate marketing activities to be effectively combined and developed (Kyriakopoulos and Moorman 2004; Atuahene-Gima 2005; Baker and Sinkula 2002). Moreover, strong market-based learning should help in sensing the market and, consequently, in establishing close customer relationships (cf. Teece, Pisano and Shuen 1997; Slater and Narver 1994). These relationships could help produce valuable feedback, thus also enabling a firm to develop new offerings and innovations so that they add value to customers (cf. Dutta et al. 1999; Srivastava et al. 1999).

Environmental Turbulence as an External Contingency Factor

In addition to potential organizational contingencies, some studies (e.g., Song et al. 2005; Hult et al. 2004; Rapp et al. 2010) propose that the performance outcomes of market-based capabilities are contingent on conditions of the external environment, especially environmental turbulence (Jaworski and Kohli 1993). Environmental turbulence has also been found to centrally affect the complementarity of capabilities (Song et al. 2005). These findings are in line with Teece et al. (1997) and Miles and Snow (1978), who propose that firms in stable environments need different capabilities than firms in turbulent, fast-changing environments. Consistent with our focus on market-based capabilities, which are directly related with the firm's ability to serve the needs of markets and customers better than its competitors (Day 1994), we focus on two key conditions of business environment: competitive intensity and market turbulence.

Competitive intensity refers to the amount of competition in a particular market (Jaworski and Kohli 1993). Grant (1996, 379) underscores that, "[U]nder dynamic competition, the potential of organizational capabilities to earn rents for the firm … depends upon their capacity for both creating and sustaining advantage." In a highly competitive environment, customer-linking capability is needed to avoid competition and to protect profits (Porter 1985; Rapp et al. 2010). In other words, defending its position in the market against competition should enable the firm to capture a greater amount of profit from its value-creating activities (Mizik and Jacobson 2003), such as innovation. At the same time, firms facing intense competition may need to engage heavily in innovation activities to break out of price and promotion wars (Auh and Menguc 2005).

Market turbulence, referring to the rate of change in the composition of customers and their preferences (Jaworski and Kohli 1993), in turn, increases the need for constantly bringing new products to the market in order to attract customers' attention (Slotegraaf and Pauwels 2008). This requires a strong innovation capability. Moreover, when it is difficult to predict what consumers want, a reasonable strategy may be to pursue many R&D alternatives and be ready to adapt this strategy when more market information becomes available (Gatignon and Xuereb 1997). A strong customer-linking capability and the related close customer relationships, on the other hand, might serve as an effective isolating mechanism for a firm in retaining its competitive position, even under high market turbulence.

Theoretical Framework: Configurations of Capabilities, Culture and Turbulence

Diverse findings of extant studies call for a unifying framework to explore more complex interactions between market-based capabilities, organizational culture, and environmental turbulence (cf. Grewal et al. 2011; Meyer et al. 1993). Moreover, causal ambiguity in *combinations* of resources and capabilities has been identified as a key source of performance differentials between firms (Reed and DeFillippi 1990; Dierickx and Cool 1989). Thus, possible fit or misfit between a firm's capabilities, and its organizational and environmental conditions, is an additional source of performance differences (Amit and Schoemaker 1993). Finally, from the methodological viewpoint, overlooking the influence of the most relevant moderator variables might also result in an aggregation bias (Grewal et al. 2011).

To increase our understanding of the potentially complex relationships, we investigate how different combinations of internal and external contingency factors call for different combinations of market-based capabilities in order to achieve high business performance. This is an important extension to analyses of performance outcomes of capabilities in different cultural (e.g., Morgan et al. 2009) and environmental contexts (e.g., Krasnikov and Jayachandran 2008), since we *simultaneously* take into account the effects of different factors related to environmental turbulence (Jaworski and Kohli 1993) and organizational culture (Baker and Sinkula 2002) on the market-based capabilities needed. Thus, we essentially argue that organizational culture and environmental turbulence *together* define whether and how customer-linking capability and innovation capability complement (or possibly substitute) one another. In this study, we seek to identify performance differences between configurations of market-based capabilities, organizational culture, and environmental turbulence (Miller 1986). Figure 1 illustrates our theoretical framework in a simplified form.

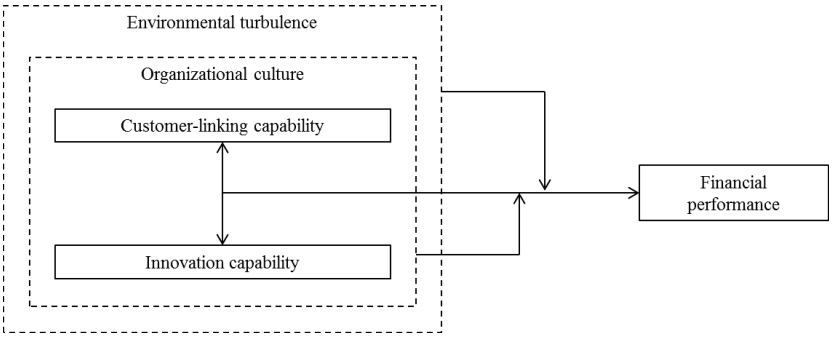

Figure 1 Theoretical framework

METHODOLOGY

In our framework, the complementarity of market-based capabilities is determined by the interaction of multiple heterogeneous elements. This poses significant, though not intractable, challenges to the analysis (cf. Ennen & Richter 2010). In order to address the challenges, a configurational approach is necessary (Vorhies and Morgan 2003; Drazin and Van de Ven 1985). Organizational configurations (Meyer et al. 1993; Short, Payne and Ketchen 2008) are defined here as groups of firms with similar capabilities and organizational culture, and facing similar degrees and types of environmental turbulence.

We use *fuzzy-set qualitative comparative analysis (fsQCA)*, which is a novel approach for studying organizational configurations in the management disciplines (Fiss 2011), as our analytical method. It is able to overcome several key shortcomings of traditional methods, such as regression analysis of interaction effects, clustering algorithms, and the deviation score approach (Fiss 2007; Short et al. 2008). For instance, compared to analysis of interaction effects, fsQCA allows examination of more complex models. Compared to cluster analysis, in turn, fsQCA is able to establish whether an individual element contributes to a configuration and how a particular combination creates a certain outcome (Miller 1996; Fiss 2007). Finally, compared to the deviation score approach, fsQCA is able to delve into the 'black box' of configurations and determine which element of the misfit from the ideal profile causes the outcome, and enables the investigation of equifinality, which refers to a situation where different initial conditions and a variety of different paths can result in a system to reach the same final state (Doty, Glick and Huber 1993; Katz and Kahn 1978). In our context, this aspect of fsQCA has the important advantage of

enabling identification of multiple alternative configurations that can lead to superior (or inferior) performance.

The fsQCA procedure involves describing cases as configurations by using a set-theoretical approach (for details, see Fiss 2007). The outcome is a set to which each case either belongs or not. In this case, this set refers to a group of firms with good financial performance relative to their competitors. However, we do not treat financial performance as a dichotomous variable, but the membership of each firm in the group of good performers is allowed to vary between full and zero membership (Ragin 2000). Similarly, each firm is also characterized by its degree of membership in each of the configurations, that is, in the sets of logically possible combinations of capabilities, culture, and turbulence. In the next phase, the analysis determines which configurations consistently lead to good financial performance (e.g., in 75 % of cases exhibiting the configuration). Finally, the logical expressions describing the configurations are simplified on the basis of redundancy (e.g., if A * B * C → X and A * B * ~C → X, then A * B → X; where " * " refers to logical *and*, while " ~ " denotes logical *not*) (Ragin 2008).

The inference of causality in fsQCA is based on the notions of sufficiency and necessity, which derive from set theory (Ragin 2000, 2008). Consistency is an index that reflects whether a configuration systematically leads to the focal outcome in the data (Greckhamer 2011). In other words, it describes whether the combination of explanatory variables is sufficient to cause the outcome. A consistency of .75 is usually considered as a threshold for an adequate sufficiency and good model fit (Ragin 2008). The coverage index, in turn, indicates the degree to which the configuration is necessary for an outcome to occur (Ragin 2008). While coverage is analogous to explanatory power of a regression model, consistency refers to statistical significance of a configuration (ibid.).

Measures

To measure the central concepts under study, validated measurement scales were used when available. As no established measurement scales are available for innovation capability, we used selected items from studies by Vorhies and Morgan (2005) and Chen (2009), while adding some relevant, newly developed items. To assess customer-linking capability, we developed a scale based on Rapp et al. (2009) and Hooley et al. (2005). To account for organizational culture, items corresponding to market-oriented culture were directly adopted from Narver and Slater's (1990) MKTOR scale,

whereas items for learning orientation were adopted from Sinkula et al.'s (1997) scale. For market turbulence and competitive intensity, we used Jaworski and Kohli's (1993) measurement items. Finally, financial performance was measured in terms of relative profits, ROI and ROA (cf. Reimann, Schilke and Thomas 2010; Hooley et al. 2005). Seven-point Likert scales were used in all the measurement items. A complete list of items is available in Appendix A.

Data and Methods

The data was collected in early spring 2010 using a web-based survey, which was targeted at the top management in Finnish companies with more than five employees. The survey resulted in 1134 responses, corresponding to a firm-level response rate of 10.9%. As shown in Table 1, roughly two thirds of the SBUs in our sample operate in the business-to-business sector. Otherwise, the sample is diverse and well balanced in terms of firm size, market position, phase of industry lifecycle, and market share. Considering the respondents' high positions (38% of respondents were CEOs), the response rate was fair (cf. Forlani, Parthasathy and Keaveney 2008; Hooley et al. 2005). After eliminating cases with missing values, the data set included 689 respondents. We found no significant differences in means of the measurement items between early and late respondents, suggesting that non-response bias is not a likely problem in this study (Armstrong and Overton 1977).

Table 1 Sample description

Characteristic	Number	%	Characteristic	Number	%
Type of firm			Industry phase		
B-to-B	470	68.2	Emerging	82	11.9
B-to-C	219	31.8	Growth	274	39.8
Size (# of employees)			Mature	265	38.5
5-10	114	16.5	Decline	68	9.9
11-50	267	38.8	Market share (%)		
51-250	169	24.5	0 - 3	87	13.6
> 250	139	20.2	4 - 10	140	21.8
Market position			10 - 20	126	19.6
Market leader	198	28.7	20 - 35	119	18.5
Market challenger	278	40.3	35 - 50	92	14.3
Market follower	213	30.9	> 50	78	12.1

Confirmatory factor analysis (CFA). *CFA* in LISREL (Jöreskog and Sörbom 2005) was employed to obtain the latent variables to be used as the basis for identifying organizational configurations with fsQCA. To ensure adequate levels of unidimensionality, measurement items were reduced from the scales when necessary. Moreover, market-based learning culture (cf. Sinkula et al. 1997) was considered as a second-order construct, consisting of two first-order factors: market orientation and learning orientation. Standardized loadings for all measurement items are presented in Appendix A. The final measurement model fitted the data well (χ^2=1591.93, df=361, RMSEA=.070, GFI=.86, NNFI=.96, CFI=.96). We found support for treating market-based learning culture as a second-order construct, as it had better (p = .05) fit with the data than the nested model with first-order constructs only (χ^2=1582.69, df=356). Moreover, there is lack of discriminant validity between market orientation and learning orientation (Table 2), whereas both are significantly related to the second-order construct.

We also found that discriminant validity of the measurement scales is good, as the square-roots of average variance extracted (AVE) indices are higher than the correlations between the corresponding construct and other constructs (Fornell and Larcker 1981). In support of convergent validity, all relevant construct reliabilities (CR) were above the recommended .6 level (Adamantopoulos and Siguaw 2000). CR and AVE for market-based learning were estimated as suggested in MacKenzie, Podsakoff and Podsakoff (2011). Finally, correlations (< .6) between latent constructs show no evidence of multicollinearity. The key statistics for the constructs are presented in Table 2.

Table 2 Descriptive statistics, correlations, and construct reliability and validity

Construct	Mean (S.D.)	CR	AVE	1	2	3	4	5	6	7	8
1. Innovation capability	4.64 (.96)	.81	.52	.72							
2. Customer-linking cap.	4.87 (.84)	.77	.53	.55	.73						
3. Market orientation	5.32 (.89)	.84	.47	.52	.58	.68					
4. Learning orientation	5.16 (.95)	.92	.57	.46	.51	.80	.75				
5. Market-based learning	5.22 (.86)	.97	.80	.54	.61	.95	.84	.90			
6. Market turbulence	4.34 (1.40)	.76	.62	.10	.09	.20	.18	.22	.79		
7. Competitive intensity	3.94 (1.32)	.64	.47	.01	.00	.11	.10	.12	.47	.69	
8. Financial performance	4.39 (1.46)	.96	.90	.32	.33	.23	.20	.24	.01	.00	.95

Square-root of AVE on the diagonal in bold; correlations off-diagonal

To account for potential common method bias, we performed Harman's one-factor analysis. An un-rotated principal components factor analysis identified eight factors that explain 71.3% of the total variance, of which the first factor accounts for 32.3%. No single factor accounts for more than half of the variance in the data, proposing that common method bias is not a threat to validity of the findings (Podsakoff and Organ 1986). Taking all the above statistics into consideration, a set of sufficiently robust measures in terms of reliability and validity is provided.

fsQCA procedure. In our analysis, we use the truth table algorithm (Ragin 2008) that is provided by the fs/QCA 2.0 software (Fiss 2011). The algorithm seeks for the most parsimonious, logical expression that encompasses all the configurations that meet a frequency threshold (number of empirical instances of the configuration, here set to two cases[1]) and a consistency threshold (here 0.80[2]). For the purpose of the fsQCA procedure, the factor scores obtained from CFA were transformed into member scores varying from 0 to 1, as identified in Appendix B. Four membership scores (i.e., 0.00, .33, .67 and 1.00) were used with regard to each factor. Following common practice (e.g., Fiss 2011), cases (i.e., companies) with the lowest mean of corresponding measurement items were assigned the lowest membership scores, and vice versa. Moreover, the cut-off points were chosen based on factor means and standard deviations so that each membership function is evenly distributed.

In order to understand the sensitivity of the high-performance configurations to contextual factors, we introduce a novel, hierarchical approach to fsQCA. This enables us to examine the context-specificity of capability complementarity and to investigate whether our findings remain consistent as additional contextual elements are introduced into the analysis.

[1] I.e., we require that there are at least two firms that belong to the configuration.
[2] If consistency equals one, 100 percent of the firms that belong to the configuration also display the outcome of interest (e.g., good financial performance). If consistency equals zero, none of the firms belonging to the configuration display the outcome.

FINDINGS

Configurations Associated with Good Financial Performance

In the first step, we include only innovation capability and customer-linking capability in the analysis. No configurations of these capabilities are found to consistently lead to good financial performance. This finding suggests that the two capabilities, either alone or in combination, are insufficient to cause good performance. Consequently, in step two, we introduce organizational culture into the analysis. We find only one configuration (*Innovation capability*Customer-linking capability*Market-based learning*) that consistently leads to good financial performance. The consistency of this configuration, .81, is acceptable (Ragin 2008) and the coverage is .37.

The interpretation of the findings from the first two steps is that *strong innovation and customer-linking capabilities are important, but alone, insufficient conditions for good financial performance; and that a market-based learning culture is needed to complement these*. In other words, the capabilities support one another insofar as the culture supports learning and placing focus on, among others, customers and competitors (Sinkula et al. 1997; Narver and Slater 1990). For instance, although innovation capability helps create new products and services, and commercialize them, the firm may need to redefine its customer because the needs and wants of existing ones may not be aligned with the new offerings (cf. Tripsas and Gavetti 2000).

In the third step of our hierarchical analysis, we consider the influence of market turbulence and competitive intensity on the performance implications of the two capabilities. We find two configurations that result in good financial performance: *Innovation capability*Customer-linking capability*~Market turbulence*Competitive intensity* (*consistency*=.85; *coverage*=.13) and *Innovation capability*Customer-linking capability*Market turbulence*~Competitive intensity* (*consistency*=.82; *coverage*=.21). The overall consistency of the solution is .82 and the coverage is .29. Similarly to Step 2, the results suggest that configurations characterized by only one strong capability (i.e., customer-linking capability *or* innovation capability) do not consistently lead to good performance. Interestingly, the results also suggest that even a combination of strong innovation capability *and* strong customer-linking capability does not consistently lead to good financial performance if the market is highly turbulent and competitive.

Nevertheless, two environmental contexts in which a combination of strong innovation capability and strong customer-linking capability is likely to lead to good performance are identified. The first of the contexts is characterized by low market turbulence and high competitive intensity, which are often characteristics of mature markets (e.g., U.S. domestic airline industry; global pulp and paper industry). In such contexts, intense head-to-head rivalry tends to erode firm profits (Porter 1985), but our results suggest that strong customer-linking and strong innovation capability together help mitigate the negative effects of competition. The second context is characterized by high market turbulence and low competitive intensity, which are typical for emerging and growing markets (e.g., the early years of dot-com business). In such contexts, strong innovation capability is needed for constantly bringing new products to the market (Slotegraaf and Pauwels 2008); whereas strong customer-linking capability importantly decreases the erosion rate of the customer base (Rapp et al. 2010) and helps in creating close customer relationships that are valuable sources of, and a test platform for, new ideas for innovation (Alam 2006).

Finally, the fourth step of our analysis combines the two capabilities of our main interest with both organizational cultural and environmental contexts. We find four configurations that are associated with good financial performance. These are presented in Table 3. The overall solution consistency (.79) and coverage (.46) indicate that the model fits the data well (Ragin 2008; Fiss 2010).

Table 3 Configurations of the market-based capabilities, organizational culture and environmental context associated with good performance

Capabilities	Culture	Turbulence	Raw coverage	Unique coverage	Consistency
IC * CLC	MBL	-	0.37	0.08	0.81
IC * CLC	-	~MT * CI	0.13	0.04	0.85
IC	MBL	MT * ~CI	0.19	0.02	0.85
CLC	MBL	CI	0.23	0.04	0.81

Solution coverage: 0.46
Solution consistency: 0.79

IC = Innovation Capability; CLC = Customer-linking Capability; MBL = Market-based Learning; MT = Market Turbulence; CI = Competitive Intensity

The capability configurations that lead to good financial performance are contextual in two key ways (Porter and Siggelkow 2008). As indicated by the first configuration in Table 3, regardless of environmental turbulence,

firms with strong innovation *and* customer-linking capabilities *and* a market-based learning culture perform well in financial terms. Note that there are four possible configurations of environmental turbulence in our investigation. Hence, this capability-culture configuration is fairly robust in the face of different forms of environmental turbulence. The second configuration, in contrast, is specific in terms of environmental turbulence, but not in terms of organizational culture. It proposes that, irrespective of the firm's level of market-based learning culture, firms with strong innovation and customer-linking capabilities perform well in an environment characterized by low market turbulence and high competitive intensity, i.e. in developed and mature markets (Doty et al. 1993).

Moreover, the two remaining configurations indicate that, under certain cultural and environmental conditions, firms with *only* strong innovation capability *or* strong customer-linking capability can perform well. However, in these configurations, a firm needs to adopt a market-based learning culture to support or leverage the capability. Importantly, too, the results show that high market turbulence calls for strong innovation capability, whereas under high competitive intensity, strong customer-linking capability is an appropriate means to good financial performance. For instance, even a firm having weak innovation capability can perform well in a competitively intense environment if it has strong customer-linking capability and a culture that supports market-based learning. Likewise, a combination of strong innovation capability and strong market-based learning culture enables good financial performance when the market is turbulent but competitive intensity is low, such as in emerging markets.

Configurations Associated with Poor Financial Performance

Because the configurations that lead to poor performance may not be the direct opposite to the combination of factors that cause good performance (Meyer et al. 1993), we also analyzed which configurations would lead to poor financial performance. Our analysis shows that there are three recipes that consistently lead to poor performance (Table 4). In each of the options, the firm has weak customer-linking capability and competition is intense. Thus, these two determinants seem to be the key characteristics associated with poor performance, potentially due to high customer acquisition costs as compared to customer retention costs under an intensively competitive landscape. Moreover, even firms with strong innovation capability suffer from poor financial performance if their customer-linking capability and culture for market-based learning are weak and competition is intense.

Reflecting these configurations to the configurations associated with good performance reveals evident asymmetry: only three combinations for poor performance emerge, while differences in configurational structures are also identified. The overall consistency for this solution is good (.80) and the coverage is .23.

Table 4 Configurations of the market-based capabilities, organizational culture and environmental context associated with poor performance

Capabilities	Culture	Turbulence	Raw coverage	Unique coverage	Consistency
IC * ~CLC	~MBL	CI	0.13	0.02	0.81
~CLC	~MBL	MT * CI	0.18	0.06	0.81
~IC * ~CLC	MBL	~MT * CI	0.07	0.02	0.82

Solution coverage: 0.23

Solution consistency: 0.80

IC = Innovation Capability; CLC = Customer-linking Capability; MBL = Market-based Learning; MT = Market Turbulence; CI = Competitive Intensity

Comparison of Rival Approaches

Next, we employ a series of log likelihood tests to investigate whether the configurations identified by our analysis improve the explanatory power of market-based capabilities on financial performance beyond direct and two-way interaction effects (cf. Fiss 2011). We add the configurations into the models as binary dummy variables indicating whether the case belongs to the identified configurations or not. We expect that these memberships would explain a significant amount of variance in the performance variable, even after accounting for other variables. In all models, we use firm size (amount of employees) and market share as control variables. Linear regression analysis with maximum likelihood estimation procedure is adopted. The results are illustrated in Table 5.

Table 5 Comparison of rival approaches: direct effects, interactions, and configurations

MODEL	-2LL	Δdf	Δ-2LL	p-value	sig.	AIC
1 Direct effects model	2174.00	-	-	-		2192.00
2 Interactions model	2161.12	4	12.88	0.012	**	2187.12
3 Configurations model	2161.94	2	12.06	0.002	***	2183.94
4 Interactions model + Configurations	2151.89	2	9.23	0.010	***	2181.89
5 Configurations model + Interactions	2151.89	4	10.05	0.040	**	2181.89

Model 2 includes the statistically significant 2-way interactions among capabilities, culture and turbulence
Models 2-3: Comparison to Model 1; Model 4: Comparison to Model 2; Model 5: Comparison to Model 3
-2LL = -2 Log Likelihood; df = degrees of freedom; AIC = Akaike Information Criterion
*** p < 0.01; ** p < .05; * p < .10

Model 1 includes the five main effects and controls. As expected, both customer-linking capability (b = .24; p < .001) and innovation capability (b = .35; p < .001) are positively associated with financial performance. Nevertheless, market-based learning culture does not appear to have a direct effect on performance (b = .08; p > .10). This somewhat surprising finding is in support of Kumar et al. (2011), who argued that market orientation has become a standard for firms rather than being a source of distinctive advantage. The performance effects of environmental turbulence (market turbulence: b = -.02; p > .10, and competitive intensity: b = -.01; p > .10) are also non-significant, which is expected, given that our dependent variable is performance *relative to competitors*. Finally, size (b = .05; p < .05) and market share (b = .13; p < .001) have positive effects on performance.

In Model 2, all statistically significant (using 80% confidence level, which is common practice in fsQCA) two-way interaction terms among the capabilities, culture, and turbulence were introduced to Model 1. These interactions are: *Innovation capability * Competitive intensity* (b = -.08; p < .10), *Innovation capability * Market turbulence* (b = .07; p = .12), *Customer-linking capability * Market turbulence* (b = -.11; p < .05), and *Customer-linking capability * Market-based learning* (b = .13; p < .05). The findings suggest that the fit of this model is significantly better than that of the direct effects model (Δ-2LL = 12.88; Δdf = 4; p = .012). Thus, as expected, two-way interactions between market-based capabilities, organizational culture and environmental turbulence provide value added (over direct effects) for explaining financial performance.[3] With regard to Model 3, two binary variables referring to whether the company fits with at

[3] We also conducted the log likelihood test for a model, where all (nine) relevant two-way interaction terms were included. The results suggest that the explanatory power of this model is only marginally better than that in Model 1 (Δ-2LL = 14.96; Δdf = 9; p = .09).

least one of the configurations that lead to i) good performance and ii) poor performance are added to the baseline model. The findings suggest that this model fits the data significantly better than Model 1 (Δ-2LL = 12.06; Δdf = 2; p = .002). That is, adding the configurations to the direct effects model improves its explanatory power considerably.

Given that both the interactions approach and configurations approach were found superior over the direct effects approach in explaining performance differentials, we compare the two approaches further. When introducing the binary-coded configuration variables into Model 2 (in Model 4), statistically significant improvements (Δ-2LL = 9.23; Δdf = 2; p = .01) in model fit from that of Model 2 is gained. Moreover, introducing the four interactions in Model 2 into the configurations model (Model 3) improves the fit significantly (Model 5: Δ-2LL = 10.05; Δdf = 4; p = .04).[4] Taken together, in our research setting, the configurational approach appears superior over the direct effects approach, and at least equally as good as the two-way interaction approach. Additionally, the configurations model is more parsimonious than the interaction models and more easily interpretable than higher-order interactions (see Fiss 2007). Specifically, the configurations model has the lowest Akaike Information Criterion (AIC) value (Akaike 1974), reflecting the best balance of explanatory power and parsimony among the three rival models. We, therefore, conclude that configurational analysis provides significant value added for empirical examination of complex causalities.

DISCUSSION

Theoretical Implications

In recent years, researchers have moved from investigating the direct performance effects of market-based capabilities towards understanding the complementarities among the capabilities (Song et al. 2005; Moorman and Slotegraaf 1999). At the same time, environmental (e.g., Hult et al. 2004) and organizational (Morgan et al. 2009) contingencies, which both might affect the rate of return on these capabilities, have gained increasing scholarly interest. The general frame of reference for these studies is that, taking internal or external contingencies into account, firms that develop

[4] Nevertheless, addition of all nine interaction terms into the configurations model (Model 3) does not enhance model fit (Δ-2LL = 10.77; Δdf = 9; p = .292),

the "right" set of market-based capabilities are likely to experience superior performance. Nevertheless, we know little about the performance implications of the firm's market-based capabilities, when higher-order interactions among the capabilities, organizational culture and environmental conditions are simultaneously considered (cf. Vorhies and Morgan 2003). Addressing this gap, the present study makes three primary contributions to theory.

First, we develop a configuration theory concerning the effect of market-based capabilities on business performance. In doing so, we integrate insights from the capability complementarity approach (Moorman and Slotegraaf 1999) and the contingency theory of capabilities (Morgan et al. 2009; Song et al. 2005). Ours is the first empirical analysis of performance outcomes resulting from the complex interactions between the capabilities, organizational culture and environmental conditions. We find four configurations associated with good financial performance, when organizational and environmental contingencies are simultaneously considered. Based on these results, we propose that there are two effective approaches to configuring market-based capabilities (cf., Miles and Snow 1978). First, irrespective of the levels of market turbulence and competitive intensity, firms with strong innovation *and* customer-linking capabilities, *as well as* a strong market-based learning culture, seem to perform well in financial terms. As suggested by Sirmon et al. (2011), remaining ahead of competitors requires constant updates for a firm's valuable capabilities. Thus, under different environmental conditions, market-based learning might serve as the necessary complement that facilitates the development of capabilities becoming more dynamic (Morgan et al. 2009). Second, under certain environmental conditions, even firms with either a strong innovation or strong customer-linking capability (and strong culture for market-based learning) *or* a weak market-based learning culture (but strong market-based capabilities) can perform well.

Second, we introduce the fsQCA methodology (Ragin 2000; Fiss 2007) into the marketing capability literature and show that it provides significant value added to studying complex interactions and their performance outcomes. More specifically, we identify several capability configurations associated with good (and poor) financial performance. What traditional linear (regression) methodologies would have a hard time revealing is that firms can gain superior (as well as inferior) financial performance in several, context-dependent ways. Moreover, we performed a statistical comparison between three rival approaches – direct effects, two-way interactions, and configurations – concerning their ability to explain performance differentials between firms. Our findings suggest that the

explanatory power of organizational configurations identified by our analysis goes over and beyond the rival approaches (cf. Newbert 2007; Crook et al. 2008). In addition, the configurations model provides the best balance of explanatory power and parsimony among the three rival models. Consequently, it appears that the causal mechanisms linking market-based capabilities to performance are complex, and non-reducible to the two-way interactions identified by prior research.

Third, the present study addresses one of the main critiques of the resource-based view about producing too context-insensitive prescriptions (Priem and Butler 2001; Sirmon et al. 2007). In doing so, we extend the tradition of dynamic capabilities research that has placed emphasis on the contextual and dynamic nature of capabilities. Our findings imply that the complementarity of innovation capability and customer-linking capability is contingent in two ways: either on organizational factors or on the level and type of environmental turbulence. Therefore, our study also extends complementarity research by identifying conditions that determine whether particular organizational factors result in synergistic performance outcomes (Ennen and Richter 2010; Porter and Siggelkow 2008). Our hierarchical analysis also enabled us to conduct a 'sensitivity analysis,' which further shows that only half of the high-performance configurations were identified when organizational and environmental contingencies were accounted for *separately*. In other words, taking into account both organizational and environmental contingencies *simultaneously* uncovers additional ways to achieve good financial performance. It also reveals that *either* strong innovation capability *or* strong customer-linking capability might suffice for good performance. We thus demonstrate a source of potential aggregation bias in empirical marketing studies (cf. Grewal et al. 2011), avoidable by accounting for several (e.g., internal and external) contingencies within one study.

Managerial Implications

We contend that our argument – that the causal structure of market-based capability-performance link is configurational – has not only theoretical (e.g., Meyer et al. 1993; Fiss 2007), but also managerial appeal. Specifically, our results suggest that some capability-culture configurations are important across industries, whereas others are more important to particular industry conditions (Armstrong and Shimizu 2007). Allocating sufficient resources for developing both market-based capabilities and market-based learning at the same time appears to be an environmentally

robust way to achieve high performance. Also, combining strong innovation capability and a strong market-based learning culture is associated with good financial performance when the market is turbulent but competitive intensity is low. However, in particular environmental contexts, *either* a strong innovation capability *or* a strong customer-linking capability may suffice for good performance if complemented with a strong culture for market-based learning. Customer-linking capability seems to lead to good performance when competitive intensity is high, whereas innovation capability and good performance go hand-in-hand under high market turbulence.

Understanding which capabilities do not require reinvestments is essential for developing other capabilities (Teece et al. 1997). Withholding reinvestments increases slack resources that can be used in the costly and slow process of developing other capabilities. However, this requires the firm's management to be equipped with a clear vision of the industry's future. Often, this is not a realistic assumption. Instead, when firms choose to invest in certain market-based capabilities, they are only partially aware of the internal and external circumstances they face (Ocasio 1997; Porac, Thomas and Baden-Fuller 1989; Winter 2007). Moreover, dynamic markets and high-order interactions identified in our study pose additional challenges for managerial rationality and the cognitive capabilities of managers and organizations. Consequently, from the point of view of boundedly rational managers, there is great uncertainty about the effects of individual market-based capabilities and their combinations on performance. Thus, if the causal mechanisms affecting organizational success are as complex as our findings suggest, a firm may have difficulties in implementing the configurations identified in our analysis.

At the same time, this difficulty applies to all firms on the market. That is, if a firm is able to implement one of the high performance configurations, the related causal ambiguity insulates the highly performing firm from imitation (Peteraf 1993). Therefore, firms equipped with a clearer vision of the industry's future and greater understanding of the causal mechanisms determining the performance implications of market-based capabilities are likely to experience superior performance relative to rivals. We thus suggest that managers should be attentive to the possibility of complex mechanisms affecting the performance implications of customer-linking capability and innovation capability, or market-based capabilities in general. Additionally, managers should seek to identify ways to enhance organizational flexibility in reducing the costs of reconfiguring a firm's capabilities, when the adopted set of capabilities leads to decreasing effectiveness or efficiency (cf. Teece 2007; Winter 2003). Other than that, the firm's success or failure due

to the managers' decisions concerning market-based capabilities will always involve an element of luck, as well (Lippman and Rumelt 1992).

Limitations and Avenues for Future Research

The limitations of our study point to opportunities for future research. Firstly, we have focused on the situational factors that determine when it is beneficial to have both customer-linking capability and innovation capability at the same time (vs. when one of them alone suffices). However, the alternative approach to dealing with the fact that both capabilities are required for long-term adaptability of the organization is to develop and deploy them sequentially. To understand the within-firm dynamics of capabilities, an in-depth longitudinal study of the capabilities would be needed (Tripsas and Gavetti 2000). Secondly, we have examined the performance effects of capabilities using a cross-sectional approach. It would be interesting to analyze the lagged performance effects and sustainability of the performance effects in a changing environment (cf. Kumar et al. 2011). To address these limitations, longitudinal data would again be needed. Finally, we rely here on rather coarse-grained measures of organizational culture. Organizational culture, however, is a complex social phenomenon that would be better addressed with an in-depth, qualitative research approach (Gebhardt et al. 2006). Future research could therefore delve into the social dynamics within firms that enable and constrain the effectiveness of market-based capabilities and their combinations.

Appendix A Measurement items and standardized loadings

Source	Construct	Items	Loading
Narver & Slater (1990)	Market Orientation[a]	1. Our business objectives are driven primarily by customer satisfaction.	.63
		2. We constantly monitor our level of commitment and orientation to serving customers needs.	.68
		3. Our strategy for competitive advantage is based on our understanding of customers needs.	.69
		4. All of our business functions are integrated in serving the needs of our target markets.	.71
		5. Our business strategies are driven by our beliefs about how we can create greater value for our customers.	.71
		6. All of our managers understand how everyone in our business can contribute to creating customer value.	.69
Sinkula, Baker & Noordewier (1997)	Learning Orientation[a]	1. Managers basically agree that our organization's ability to learn is the key to our competitive advantage.	.75
		2. The basic values of this organization include learning as key to improvement.	.78
		3. The sense around here is that employee learning is an investment, not an expense.	.80
		4. Learning in my organization is seen as a key commodity necessary to guarantee organizational survival.	.83
		5. There is a commonality of purpose in my organization.	.80
		6. There is total agreement on our organizational vision across all levels, functions, and divisions.	.72
		7. All employees are committed to the goals of this organization.	.73
		8. Employees view themselves as partners in charting the direction of the organization.	.69
		9. We are not afraid to reflect critically on the shared assumptions we have made about our customers.	.66
Adapted from Langerak *et al.* (2007); Vorhies & Morgan (2005)	Innovation Capability[b]	1. Ability to develop new product/service ideas.	.72
		2. Exploitation of new business models.	.76
		3. Rapid commercialization of ideas.	.72
		4. Ability to successfully launch new products/services.	.69
Adapted from Hooley et al. (2005); Rapp et al. (2010)	Customer-linking Capability[b]	1. Retaining customer relationships	.74
		2. Understanding customer needs to deliver what they want	.82
		3. Development/execution of customer encounters	.60
Jaworski & Kohli (1993)	Market Turbulence[a]	1. In our kind of business, customers' product preferences change quite a bit over time.	.75
		2. Our customers tend to look for new products all the time.	.82
Jaworski & Kohli (1993)	Competitive Intensity[a]	1. There are many "promotion wars" in our industry.	.62
		2. One hears of a new competitive move almost every day.	.75
Reimann et al. (2010); Hooley et al. (2005)	Financial Performance[c]	1. Profit / profit margins relative to main competitors.	.88
		2. Return on investment (ROI) relative to main competitors.	.99
		3. Return on assets (ROA) relative to main competitors.	.97

[a] Seven-point scale ranging from 1 = "strongly disagree" to 7 = "strongly agree"

[b] Seven-point scale ranging from 1 = "strong competitor's advantage" to 7 = "our strong advantage"

[c] Seven-point scale ranging from 1 = "much worse" to 7 = "much better"

Appendix B The membership functions used in the analysis

Variable	Set-theoretic concept	Thresholds for the degrees of membership				
		0	0.33	0.5	0.67	1
Panel A: Outcome variable						
Financial performance	High financial performance	$X_{FP} <= 3.50$	$3.50 < X_{FP} <= 4.50$		$4.50 < X_{FP} <= 5.50$	$5.50 < X_{FP} <= 7.00$
Panel B: Contextual variables						
Market-based learning culture	Strong market-based learning culture	$X_{MBLC} <= 5.00$	$5.00 < X_{MBLC} <= 5.50$		$5.50 < X_{MBLC} <= 6.00$	$6.00 < X_{MBLC} <= 7.00$
Market turbulence	High market turbulence	$X_{MT} <= 3.50$	$3.50 < X_{MT} <= 4.50$		$4.50 < X_{MT} <= 5.50$	$5.50 < X_{MT} <= 7.00$
Competitive intensity	High competitive intensity	$X_{CI} <= 3.50$	$3.50 < X_{CI} <= 4.50$		$4.50 < X_{CI} <= 5.50$	$5.50 < X_{CI} <= 7.00$
Panel C: Market-based capabilities						
Innovation capability	Strong innovation capability	$X_{IC} <= 4.00$	$4.00 < X_{IC} <= 4.75$		$4.75 < X_{IC} <= 5.50$	$5.50 < X_{IC} <= 7.00$
Customer-linking capability	Strong customer-linking capability	$X_{CLC} <= 4.00$	$4.00 < X_{CLC} <= 4.75$		$4.75 < X_{CLC} <= 5.50$	$5.50 < X_{CLC} <= 7.00$

Note: Variables are represented by the average of corresponding measurement items, obtained from confirmatory factor analysis

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One of the central problems in marketing and strategic management studies is why some companies outperform others. Another key issue is how context-specific the determinants for improved business performance are. This dissertation addresses these issues by empirically examining how organization-level strategic orientations and market-based capabilities contribute to companies' business performance in different business contexts. In four complementary essays, managerially relevant insights into which orientations and capabilities companies should concentrate to improve effectiveness are provided. Specifically, different performance mechanisms and complementarities between the key marketing determinants are investigated. The findings suggest that firms should adjust their marketing resources and capabilities to fit their organizational and environmental conditions. Moreover, the findings reveal that 'success recipes' can be substantially complex and context-dependent.

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