

Paper submitted to
9th International Marketing Trends Congress
January 16-17, 2009
Paris, France

**Market orientation and business performance:
the mediating effect of core business processes**

Matti Jaakkola¹
Johanna Frösén
Matti Santala
Antti Vassinen

Helsinki School of Economics
Department of Marketing and Management
P. O. BOX 1210
FIN-00101 Helsinki, Finland
Tel. +358 40 353 8300
Fax: +358 9 4313 8660
E-mail: matti.jaakkola@hse.fi

¹ Corresponding author

Market orientation and business performance: the mediating effect of core business processes

Abstract

Business processes that relate to marketing are instrumental sources of competitive advantage for any company in the global business environment. This paper examines three core business processes – new product development (NPD), customer relationship management (CRM), and supply chain management (SCM) – defined by Srivastava et al.(1999). We aim to identify impact of different process capabilities on marketing performance and business performance. The results are derived from data containing 1157 survey responses from managers of Finnish companies. The findings describe how performance can be more comprehensively explained by including the three business processes as mediators. Therefore, it contributes to the research on market orientation by providing a validly seminal, empirically tested performance model for further research.

Keywords: market orientation, business processes, RBV, business performance

Introduction

The relationship between market orientation and marketing performance has, in various incarnations, been a key research theme during the past two decades. Value-generating business processes are the operative mechanisms that translate organizational culture and customer needs into business performance. The framework of Srivastava et al. (1999) aims at an integrated understanding of marketing as parts of business processes contributing to shareholder value. The role of marketing is explicated as the "primary generator and integrator of market or customer inputs in core business processes". As Srivastava et al.'s three core business processes of product development management, supply chain management, and customer relationship management arguably all have market orientation (Narver and Slater 1990; Kohli and Jaworski 1990) as their theoretical antecedent, studying the component roles of the three processes is a move towards an advanced understanding of the link between market orientation and business performance.

This paper takes Narver and Slater's (1990) conceptualization of market orientation as a starting point and antecedent to business performance, while the authors understand its limitations in being only one of many approaches to the theme. Another theoretical basis is provided by the resource-based view (RBV) of the firm (Barney 1991) as it provides a conceptual framework for connecting market orientation and business processes (Srivastava et al. 1999). We intend to demonstrate that Srivastava et al.'s (1999) essentially cross-sectional business processes and performance in those operative subsets of business can form a deconstruction that is conducive to both further studies into the performance effects of individual links, as well as to more concrete managerial tool fabrication. For managers, understanding the routes through which market orientation influences performance is vital (Kirca et al. 2005). To these ends, the following research question is set:

How do value-generating core business processes mediate the market orientation – business performance relationship?

In order to answer it, two further sub-questions are formulated:

- 1) *What is the role of market orientation in building and enhancing the core business processes?*
- 2) *How strong is the relationship between the core business processes and business performance?*

This paper begins with a literature review mapping the theoretical background around market orientation, business performance, the three core business processes, and the relationships between these constructs. Concurrently, a series of hypotheses are presented to connect the focal processes with the antecedent on market orientation and the outcome of business performance. Notably, this is – to best knowledge of the authors – the first study to empirically test the integrated model where business processes are mediating the market orientation -performance relationship. The conceptual model is then tested using recent data from a survey targeted at the top management of Finnish companies, using structural equation modeling. Empirical evidence supporting the hypotheses is discussed, followed by discussion of the implications of the research for further study and managerial interest.

Theoretical background

Market Orientation and Business Performance

Since the original launch of the concept, research into market orientation has established the relationship between market orientation and business performance (Ellis 2006). A number of perspectives, however, exist as to the nature of the relationship (Ellis 2006; Langerak 2003). The original discussion on market orientation is largely cultural and informational. Kohli and Jaworski (1990) approach marketing orientation as a prioritization of generating, disseminating and interpreting information on customer needs, whereas Narver and Slater (1990) define it as the degree to which company culture is geared towards meeting customer needs and overcoming competitors. Kohli and Jaworski (1990) frame the concept as specific behaviors in organization-wide generation, dissemination and responsiveness to customer information (Homburg and Pflesser 2000; Langerak 2003). Hult, Ketchen and Slater (2005) demonstrate that multiple approaches can be integrated to better explain performance, mediated by organizational responsiveness. They find that Narver and Slater's and Kohli and Jaworski's conceptualizations represent significant and – importantly – different performance antecedents. They also posit that other antecedents of performance, such as customer orientation, should be included in analysis. However, their view is that market orientation cannot be fully captured by that alone, either.

Quantitative analyses have validated the link between the two (e.g. Baker and Sinkula 1999; 2005; Farrell 2000; Homburg and Pflesser 2000; Hult and Ketchen 2001), although the results are inconclusive. Overall, more than 100 studies have examined the market orientation – performance relationship during the last two decades (see extensive meta-analyses by e.g. Ellis 2006 and Langerak 2003). Different measurement and sample characteristics (e.g. cultural context, objective versus subjective measures, single- versus multi-item scales, different firm types) and moderators (strategy type (Matsuno and Mentzer 2000), technological turbulence, market/environmental turbulence and competitive intensity) have been used (Kirca et al. 2005). The results suggest, among others, that innovativeness, customer loyalty, and quality account for a substantial portion of the total effect of market orientation on performance (Kirca et al. 2005). Several studies have also found that intermediate performance measures tend to mediate the effect of market orientation on terminal performance measures (Baker and Sinkula 2005). It is therefore somewhat surprising

that business processes have not been included into models that examine the link between market orientation and business performance. It is this research gap we attempt to partly fulfill by conducting the present study. Concurrently, we have sufficient basis to present the first research hypothesis:

H1: Market orientation is positively related to firm business performance

Another regular theme in recent discourse has been the scope of marketing activities and marketing management. Common approaches include relationship management and continued study on applying the resource-based view of the firm perspective on marketing. Drawing on these perspectives and the discourse on marketing performance and market orientation, strategic marketing literature is in considerable agreement on that the operations of a company must be assessed from a customer and value point of view on a compound level. What, however, is lacking at the present time is a deeper understanding of the concrete operative mechanisms through which market orientation is manifested. Thus, to better explain the relationship, the link between market orientation and business performance calls for further deconstruction.

The abstract nature of market orientation and its parallel constructs require further investigation to pull out the operative contributors to performance. As with studying the direct market orientation-performance link, components will necessarily be overlapping and never mutually exclusive. An intermediate theoretical conceptualization of the operative scope of marketing is needed as a connector. Srivastava et al.'s (1999) article presents a viable and widely cited option of reflecting on a company's operations through three business processes. Srivastava et al.'s (1999) three core business processes are identified as the ground for marketing phenomena, based on value generation. The marketing-centered view into the value generation and cash flow generation serves as a convenient starting point for disentangling the complex causal relationship between market orientation and performance.

Market Orientation and New Product Development

Market oriented product development management aims at creating solutions that provide maximum value and benefit for customers. This requires discovering and understanding both the expressed and latent needs of customers (Narver et al. 2004). A market oriented approach

to new product development emphasizes close relationships with entities both internal and external to the organization in order to get information about customers' needs and wants, competitors and changes in the market. Thus, a market oriented product development management emphasizes the significance of creating and exploiting market knowledge in designing and developing superior products. (Srivastava et al. 1999; Kohli and Jaworski 1990)

The study by Slater and Narver (1994) identifies innovation and new product development as one of the core capabilities converting market orientation into organizational performance. The mediating role of new product development has been further examined in studies by Atuahene-Gima (1995), Han et al. (1998), Hurley and Hult (1998) and Baker and Sinkula (1999) that confirm market orientation to augment organizational innovativeness and new product success, which in turn leads to enhanced organizational performance. Recently, the moderating effect of new product development in linking market orientation to superior business performance has been recognized by several studies (e.g. Kirca et al. 2005; Langerak et al. 2004, 2007).

Market orientation guides organizational culture and activities enhancing new product performance. A firm's capability of generating, disseminating and exploiting market information strongly influences new product development and its outcomes (Han et al. 1998; Langerak et al. 2007). Market orientation includes development of capabilities in market sensing and customer linking (Day 1994), which lead to a deeper insight into customer's both expressed and latent needs. This enables development of innovative solutions to satisfy those needs (Narver et al. 2004). Market information processing capabilities and generative learning also permit to quickly identify and respond to changing customer needs (Baker and Sinkula 2005). The interfunctional coordination embedded in the market-oriented culture (Narver and Slater 1990) also provides a unifying focus of creating superior value for customers (Baker and Sinkula 1999, Atuahene-Gima 1996) with a comparative impetus with competitor's activities, and helps to achieve a holistic approach to NPD practices, thus improving new product performance (see Langerak et al. 2007). Consequently, we hypothesize that:

H2: Market orientation is positively related to NPD process capability.

The ability of new product development to translate into superior organizational performance depends on both its efficiency and effectiveness (e.g. Ravindranath and Grover 1998, see Baker and Sinkula 2005). Efficiency refers to the cost efficiency in developing and producing new product concepts. Effectiveness refers to the ability to conceptualize products that are superior in terms of meeting customer needs, and is directly influenced by market orientation (Baker and Sinkula 2005). As shown by the study by Langerak et al. (2007), new product performance, resulting from market-oriented new product development, positively affects organizational performance. In terms of superior products, market orientation creates superior value for customers, which in turn translates into higher profit margins (Slater et al. 2004). Also, market orientation indirectly increases profitability via enhanced new product success (e.g. the ability to process market information leads to timely new product launches), converting into market share gains (Baker and Sinkula 2005). We thus hypothesize that:

H5: NPD process capability is positively related to firm business performance.

Market Orientation and Customer Relationship Management

Customer relationship management refers to the collection of activities that aim to acquire and retain customers (see e.g. Boulding et al. 2005). These activities include processes that facilitate co-creation of value, as well as activities that discover and inject customer information for organizational use. The importance of customer relationship management has been widely accepted, while the scope of activities and their exact nature is less widely agreed upon. An abstract but widely cited definition by Grönroos (1991) underlines the dynamic and progressive nature of the relationship, arguing on the necessity of managing customer relationships. It purports that the role of marketing is to “establish, maintain and enhance relationships with customers and other parties at profit so the objectives of the parties involved are met”.

In order to establish and nurture customer relationships, a market-oriented culture in an organization is seen as a necessity. The development of a relationship is essentially about learning between parties and actively aligning interests based on learning. According to Slater and Narver (1995), this is a central characteristic of a market oriented culture. They phrase it to be inherently a “learning orientation” that aims to discover expressed and latent needs by engaging in active dialog between customers and other stakeholders (Slater and Narver 1995).

Further, in order to interpret the information and inject the knowledge in organizational use, market sensing capabilities and inter-functional coordination, also characteristics of market orientation (Day 1994), are needed. Following this line of reasoning, we hypothesize that:

H3: Market orientation is positively related to CRM process capability.

Previous studies have shown that customer relationship management process increases customer satisfaction, which in turn drives performance (Mithas et al. 2005). Various approaches to the operationalization of customer management process has been used; so far at least higher service quality (Gummesson 1994), increased efficiency as a result of interaction and designing the customer contact (Ryals 2005) have been shown to have a direct link to performance. Combining these approaches, Srivastava et al. (1999) propose that CRM process can be regarded to embody all the activities that an organization takes to learn about current and potential customers, interact with them (including advertising, promotion and personal contact) and to develop their trust and loyalty. These are presented as direct drivers of performance, leading us to hypothesize that:

H6: CRM process capability is positively related to firm business performance.

Market Orientation and Supply Chain Management

Mentzer et al. (2001, see Min et al. 2007) define a supply chain as “a set of three or more organizations directly linked by one or more of the upstream and downstream flows of products, services, finances, and information from a source to a customer”. Supply chain management incorporates acquisition of all physical and informational inputs and transformation of these inputs into customer solutions (Srivastava et al. 1999), thus including the simultaneous integration of customer requirements, internal processes and upstream supplier performance (Tan et al. 1999). A market oriented supply chain management aims at the value and benefits experienced by the end user by coordination and integration of supply chain tasks and activities. This can be reached by designing, managing, and integrating the firm’s own supply chain with that of both suppliers and customers. Thus, a market oriented supply chain management requires both managing tangible assets that support the supply chain infrastructure and close relationships and networks with suppliers and distributors. (Srivastava et al. 1999)

The studies attempting to investigate market orientation in a supply chain management context remain few (e.g. Min et al. 2007). Market orientation includes collecting, sharing and responsiveness to information about customers, competitors and changes in the markets in order to recognize market opportunities (Kohli and Jaworski 1990). A supply chain based on external networks with suppliers, channels and other partners provide a firm both information on new opportunities and collaboration to exploit these opportunities (Lee et al. 2004, see Min et al. 2007). Thus, the association between market orientation and supply chain management appears logical. The above line of reasoning leads us to hypothesize that:

H4: Market orientation is positively related to SCM process capability.

The study by Min et al. (2007) shows market orientation to have a strong positive impact on both supply chain orientation and supply chain management, and both of these two to have in turn a positive impact on performance. The studies by e.g. Tan et al. (1999) show a linkage between the effective supply chain management practices and firm performance. Close network relationships and cooperation with suppliers and distributors can, in addition to enhanced quality and e.g. rapid integration of latest technological breakthroughs, help reduce costs by cutting inventory and improving efficiency throughout the chain. Therefore, it seems justified for us to hypothesize that:

H7: SCM process capability is positively related to firm business performance.

The framework of the study, illustrating the research hypotheses, is illustrated in Figure 1.

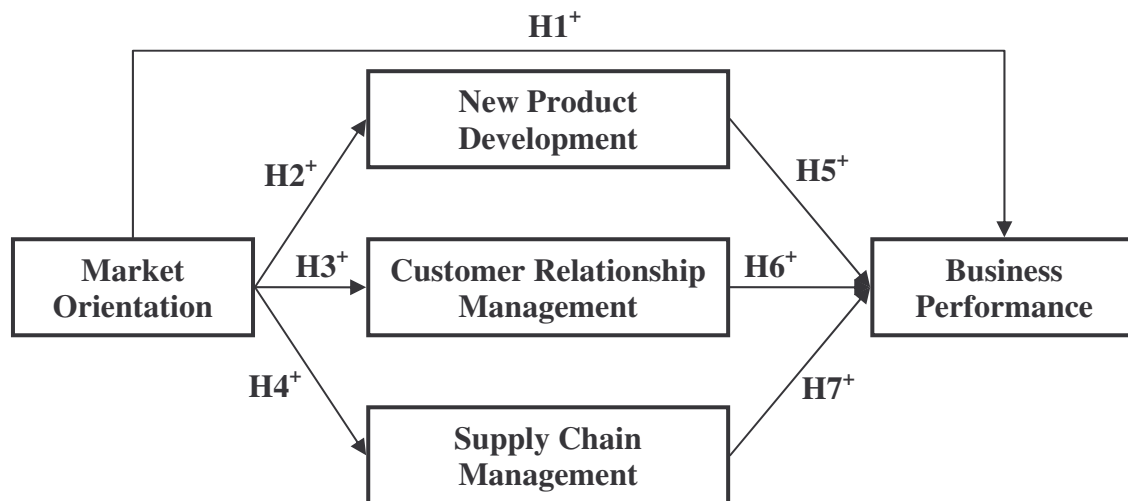


Figure 1 The framework for the study and research hypotheses

Methodology

An empirical study was deployed to test the hypothesized relationships between market orientation, the three business processes and business performance in Finnish companies. The data was collected by a web-based questionnaire as a part of a study examining the current state of marketing in Finnish companies in 2008. A pilot version of the questionnaire was sent to 114 managing directors, of whom 34 completed the questionnaire. Some misspellings were corrected and a few clarifications in the wording made. The pre-tested survey was addressed to top management in Finnish companies with more than five employees. Services and goods companies from both business-to-consumer and business-to-business sector were included to the sample frame. The target population consisted of 6 867 companies with 15 941 named respondents. Extensive data of 1 157 responses were received from 1 099 different companies, adding up to the total response rate of 7.25% in terms of respondents and 16.00% on the firm level. The most frequent title of the respondent was CEO (38%). Considering the high positions of the respondents and the considerable breadth and depth of the questionnaire, the response rate was considered adequate.

Measures

The measures of market orientation, business process and business performance were majorly drawn from existing scales, but also developed for the purposes of this study. Newly

developed items were derived from detailed literature review, expert opinions, and field-based interviews. Following the analysis of the pilot data, the seminal questionnaire was further refined. All items, except those of market orientation, were measured on a seven point advantage scale. Market orientation was assessed internally. A complete list of items in each scale is presented in Table 1.

Although ordinal in nature, the analysis is conducted as if answers were given at continuous scales (Finney and DiStefano 2006). Frequently used scale of Narver and Slater (1990) was deployed to measure market orientation. For the three business processes, majority of the questions were adopted from studies by Vorhies and Morgan (2005), Srivastava et al. (1999) and Hooley et al. (2005). Additionally, some new measures were developed. As the factors and most of the related indicators have been in use in previous studies, we used confirmatory factor analysis (CFA) in model development and assessment. Subsequently, as a principal statistical method in this study, structural equation modeling (SEM) was used.

Table 1 Survey items used to measure constructs and scaling

Market Orientation ¹	<ol style="list-style-type: none"> 1. Our business objectives are driven primarily by customer satisfaction 2. We rapidly respond to competitive actions that threaten us 3. We constantly monitor our level of commitment an orientation to serving customers needs 4. We freely communicate information about our successful and unsuccessful customer experiences across all business functions 5. Our strategy for competitive advantage is based on our understanding of customers needs 6. All of our business functions (e.g., marketing/sales, manufacturing, R&D, finance/accounting, etc.) are integrated in serving the needs of our target markets 7. Our business strategies are driven by our beliefs about how we can create greater value for our customers 8. We give close attention to after-sales service 9. All of our managers understand how everyone in our business can contribute to creating customer value
New Product Development ²	<ol style="list-style-type: none"> 1. Ability to develop new products/services 2. Exploitation of new business models 3. Rapid commercialization of ideas 4. Amount of product or service innovations 5. Successfully launching new products/services 6. R&D performance
Customer Relationship Management ²	<ol style="list-style-type: none"> 1. Customer relationship retention 2. Delivering what your customers want 3. Identifying potential new customers 4.(Developing/executing service programs 5. Developing and executing customer encounters 6. Degree of responsiveness to customer enquiries and requests
Supply Chain Management ²	<ol style="list-style-type: none"> 1. Attracting and retaining the best distributors 2. Attracting and retaining the best retailers 3. Managing customer services, such as installation and maintenance to enable product use 4. Order processing, pricing, billing, rebates, and terms 5. Designing and managing logistics 6. Providing high levels of service support to distributors

Business performance ²	1. Profit compared to competitors 2. Return on investment compared to competitors 3. Return on assets compared to competitors
-----------------------------------	---

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.”

Analysis and results

Confirmatory factor analysis (CFA) was used for scale construction and validation. Several items were excluded from the model to achieve appropriate levels of unidimensionality (standardized loadings for final indicators are presented in Appendix). Subsequently, the goodness-of-fit indicators of the measurement model were found acceptable: root mean square of approximation (RMSEA) = 0.064; goodness of fit index (GFI) = 0.89; comparative fit index (CFI) = 0.96; non-normed fit index (NNFI) = 0.96.

Reliability measures and correlation matrix for the latent variables are shown in Table 2. Furthermore, correlations between the constructs in Table 2 are reasonably low. In addition, practically all values for composite reliabilities (CR) and average variances extracted (AVE) are above the respective thresholds of 0.6 and 0.5, recommended by Diamantopoulos and Siguaw (2000). Since the AVE values for market orientation and new product development are below 0.5, slightly too small amount of variance is captured by these constructs in relation to the variance due to measurement error. However, taking all the above statistics into consideration, a set of adequately reliable and valid metrics for the constructs is provided (Kline, 2005).

Table 2 Construct reliabilities and correlations

	CR	AVE	MOR	NPD	CRM	SCM	PERF
MOR	0.87	0.44	1.00				
NPD	0.85	0.49	0.44	1.00			
CRM	0.86	0.50	0.62	0.27	1.00		
SCM	0.87	0.53	0.32	0.14	0.20	1.00	
PERF	0.97	0.91	0.26	0.22	0.42	0.15	1.00

Thereafter, the hypotheses were tested simultaneously using structural equation modelling (SEM) in LISREL 8.80 (Jöreskog and Sörbom 2005). Maximum likelihood and covariance

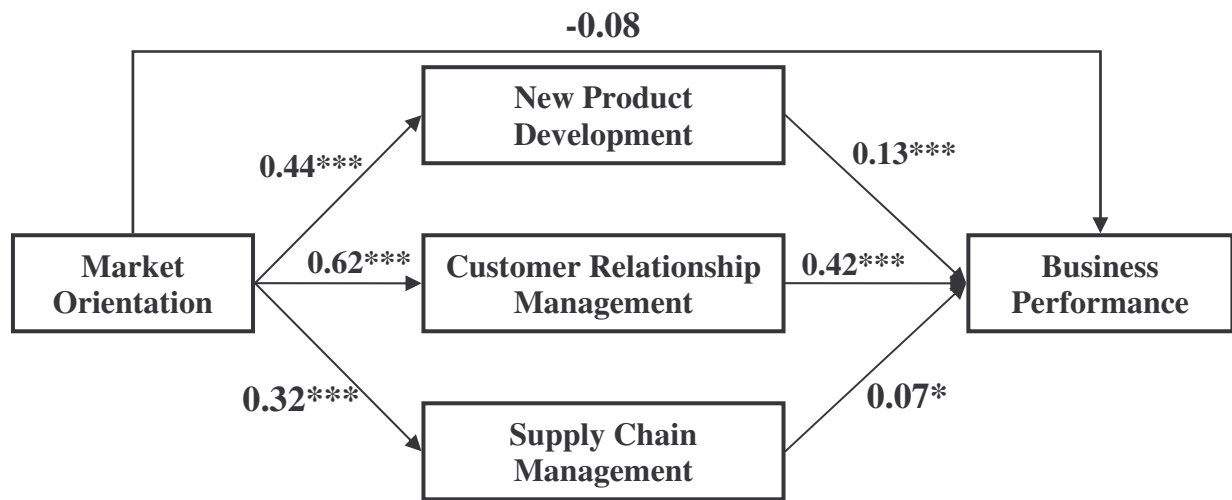
matrix estimation procedure were used. The overall model fit indices (RMSEA=0.068; GFI=0.87; CFI=0.96; NNFI=0.95) refer to sufficiently good general fit between the model and data. Key results of the study, including regression coefficients, T-values, and significance levels for each relationship, and indication whether specific hypothesis is supported or not, are presented in Table 3.

Table 3 Results of the study

Hypothesis	Relationship	Regression coefficient	T-value	Significance level	Result
H1 (+)	MOR → PERF	0.26	8.28	***	Supported
H2 (+)	MOR → NPD	0.44	12.69	***	Supported
H3 (+)	MOR → CRM	0.62	16.96	***	Supported
H4 (+)	MOR → SCM	0.32	9.70	***	Supported
H5 (+)	NPD → PERF	0.13	3.92	***	Supported
H6 (+)	CRM → PERF	0.42	9.86	***	Supported
H7 (+)	SCM → PERF	0.07	2.36	*	Supported

* p < 0.05; *** p < 0.001

Figure 1 shows the final structural model with standardized path estimates. All estimates are statistically significant at the p<.05 confidence level, and predominantly even at .001 level. For the relationship between market orientation and business performance, we found a statistically non-significant negative ($\beta = -.08$; t-value = -1.82) direct effect. However, we identified a statistically significant, positive total effect between the constructs. Therefore, hypothesis H1 was supported. Moreover, market orientation positively and highly significantly relates to NPD ($\beta = .44$), CRM ($\beta = .62$) and SCM ($\beta = .32$). Thus, strong empirical evidence for hypotheses H2, H3 and H4 is provided. The result seems reasonable, as considering the three dimensions of market orientation – customer orientation, competitor orientation, and cross-functional coordination (Narver and Slater 1990) – could well lead to enhanced business process capabilities. Further, positive relationships were identified also between business processes of the study and performance. New product development process ($\beta = .13$) and customer relationship management process ($\beta = .42$) have highly significant path estimates with business performance, supporting hypotheses H5 and H6. Also hypothesis H7 is verified, as supply chain management process was detected to positively ($\beta = .07$) relate with performance. Nevertheless, the significance level here is not as high as for the other relationships in this study.



*** $p < 0.001$; * $p < 0.05$

Model fit: $\chi^2=2531.56$; $df=398$; $p=0.000$; $RMSEA=0.068$; $GFI=0.87$; $NNFI=0.95$; $CFI=0.96$.

Figure 2 Structural equation model: standardized path estimates

To summarize, we found good empirical evidence for essentially all hypotheses. The results suggest that market orientation strengthens especially customer relationship management, although effects to the other business processes (new product development and supply chain management) are remarkable, too. Furthermore, although the effects of the other two processes are also significant, customer relationship management is the only business to considerably affect business performance.

Discussion

Theoretical implications

Previous research on the relationship between market orientation and business performance is wide in scale and scope. While results are somewhat inconclusive, this might be because of inconsistency in conceptualization of market orientation. How business processes mediate the relationship has also remained rather unclear. This paper contributes to the discourse by providing further evidence on the interplay between market orientation, three core business processes suggested by Srivastava et al. (1999), and financial performance. Our study benefits the discourse, as it offers a more concrete and detailed understanding on the performance generating mechanisms of market orientation. Consequently, we are perhaps better equipped

to take the required step towards managers, as they desperately would like to know what the points of development are in order to increase the bottom line of their business. Relevant knowledge is provided on how certain business processes are affected and affect performance.

According to the results, it seems that high market orientation provides an environment that is concurrently innovation-friendly, relationship-focused and supply-chain friendly. One of the key findings of this study suggests that CRM process capabilities mediate the performance impact of market orientation stronger than the other process capabilities. This might be the case since customer orientation is inherent to majority of market orientation conceptualizations. The direct link between market orientation and business performance is not statistically significant, while the paths mediated by the three business processes are. The result is in line with previous conceptual development by e.g. Hunt and Morgan (1995) who argue that market orientation can be considered as a resource. Further, as we know, capabilities are bundles of more specific skills, procedures, and processes that can leverage resources into competitive advantage (Day 1994), as resources alone are insufficient. This study confirms that both resources and matching process capabilities are required for high performance (cf. Baker and Sinkula 2005). The findings also further validate the results of Vorhies and Harker (2000) who found that firms with high market orientation consistently demonstrate higher levels in different marketing capability dimensions, and ultimately outperform the less market-driven companies.

The results of this study call for further discussion. Why, for example, CRM process seems to be the most important and SCM process the least important mediator between market orientation and business performance? It might be so that, although SCM process would generate benefits, the development of process capabilities requires massive amount of time and incurs large financial investments. We additionally found that the performance impact of NPD process capabilities is statistically significant, contradicting Ramaswami et al. (2004).

The performance impact of market orientation was evidenced, now in Finnish company setting. Significantly, however, majority of the impact resulted through the mechanism where business process capabilities had an active role as mediators. We believe that the scales for phenomena and potential response bias might at least partly explain this issue. We namely expect that somewhat more reliable findings are achieved when multiple explanatory scales,

instead just one, are used. This addresses the challenge for conceptualizing individual theoretical constructs, and market orientation especially.

As in any research that contains cause-and-effect relationships, the direction of the links is an important issue to consider. Others might argue that market orientation really is not a phenomenon that affects the business processes in the study. Additionally, questions may arise why our theoretical model misses the highly probable loop from performance to market orientation and the three process capabilities. Our model stems mainly from the evident research gap identified from Srivastava et al. (1999). Our mission was to tackle the conceptually oriented discussion on business processes, and to empirically confirm the hypothesized relationships from previous research. We were surprised to not find practically any empirical research on the interplay between market orientation, business processes and performance. This is the rationale behind developing our conceptual model, while excluding the feedback loops from performance was due to maintaining sufficient level of simplicity and applicability when it comes to practical implications of this study. Further, given cross-sectional nature of this study, feedback loops are not methodologically relevant.

Managerial implications

Srivastava et al. (1999) suggest that the business processes enhance business performance in three significant ways: accelerating and enhancing cash flows, and reducing risk. The results of this study further address that, with high market orientation, companies can enhance the process capabilities, and thus, even more out of their processes. This study is focused to present broad lines on how different business processes affect performance, having market orientation as their antecedent. In the following, we nevertheless provide some practical interpretation for the findings.

Market orientation is a block that needs to be built into organizations before it can fully enjoy the benefits of other organizational resources, knowledge and capabilities. Importantly, too, the objectives of business processes and their development have to be well communicated to those people charged with implementing them (cf. Srivastava et al. 1999). Supporting mechanisms have to also be functioning properly. Firms with strong market orientation might develop successful new offerings, but still face an inherent risk if they lack the expertise to

fully leverage new product sales due to a lack of supportive channels, or effective promotion, among others (Baker and Sinkula 2005).

It makes a difference whether a company incorporates principles of reactive or proactive market orientation (Narver et al. 2004). Firms should probably strive for a well-balanced situation where both expressed market needs and latent needs would be identified and – in best case – satisfied. For example, market orientation should enhance innovativeness and new product performance as it drives a continuous and proactive behaviour toward meeting customer needs and emphasis on greater information use (Kirca et al. 2005), but market orientation should also help taking full advantage of already existing offerings and perhaps leveraging them properly.

Overall, the empirical test provided strong confirmation to the used conceptual model of market orientation and business processes. The established relationships between the components of the model provided fruitful insights into performance, and its assessment and balancing issues. We suggest that marketing investments should be assessed against their impact on financial performance. The framework now presented has also potential to provide a concrete and implementable model for further development on managerial purposes.

Limitations

In this study, the three business processes are considered as parallel. However, it could be more realistic to let the processes interact with each other. For example, capabilities in NPD could be a precondition or facilitator to the development of SCM capabilities. Additionally, potential combined effect of different business process capabilities is not considered.

The direction of the links between the constructs is not self-evident, which stems from the cross-sectional data used in this study. It could be that business processes actually affect market orientation, and not vice versa. Additionally, our model contains no feedback loops from performance to market orientation or different business processes.

Conclusions

Contribution of the study

Although the constructs and most of the relationships of the study have been considered in isolation, this is, to our knowledge, the first study to integrate the interplay of market orientation, business processes and business performance into one testable model. It also provides a somewhat more complete understanding of how market orientation might be related to performance.

This research stems partially from the suggestion by Srivastava et al. (1999): postulation and testing of cause-and-effect linkages between core business processes and performance variables should be addressed more explicitly. In addition to its empirical merit, this study also conceptually integrates certain areas of marketing and strategic management research and builds link between some of their key papers.

Avenues for future research

Future research could address some of the limitations of this study. Firstly, our data was cross-sectional, and not longitudinal. Secondly, the empirical analysis did not consider possible differences in path coefficient magnitude in regard to firm size (small- and medium-sized enterprises versus large corporations), business strategies (consumer or business market focus), or the country of origin. Additionally, further research could examine whether different market orientation-performance mechanisms are in effect in different industries. Thirdly, turbulence of business environment is not considered here as a moderating variable. We hope that this study activates other academics to empirically examine business processes as performance generating tools. We also see an increasing need and relevance to study the relationships between business processes and other marketing antecedents of business success, both conceptually and empirically.

References

- Atuahene-Gima, K. (1995) An Exploratory Analysis of the Impact of Market Orientation on New Product Performance: A Contingency Approach. *Journal of Product Innovation Management*, 12: 275-293.
- Atuahene-Gima, K. (1996) Market Orientation and Innovation. *Journal of Business Research*, 35(2): 93-103.
- Baker, W.E. and Sinkula, J.M. (1999) Learning Orientation, Market Orientation, and Innovation: Integrating and Extending Models of Organizational Performance. *Journal of Market-Focused Management*. 4(4): 295-308.
- Baker, W.E. and Sinkula, J.M. (2005) Market Orientation and the New Product Paradox. *Journal of Product Innovation Management*. 22(6): 483–502.
- Barney, J.B. (1991), Firm Resources and Sustained Competitive Advantage. *Journal of Management*. 17: 99-120.
- Boulding, W., Staelin, R., Ehret, M. and Johnston, W.J. (2005) A Customer Relationship Management Roadmap: What Is Known, Potential Pitfalls, and Where to Go. *Journal of Marketing*. 69(4): 155-166.
- Day, G.S. (1994) The Capabilities of Market-Driven Organizations. *Journal of Marketing*. 58(4): 37-52.
- Diamantopoulos, A. and Siguaw, .A. (2000) *Introducing Lisrel*. SAGE Publications.
- Ellis, P.D. (2006) Market Orientation and Performance: A Meta-Analysis and Cross-National Comparisons. *Journal of Management Studies*. 43(5): 1089–1107.
- Farrell, M.A. (2000) Developing a Market-Oriented Learning Organisation. *Australian Journal of Management*. 25(2): 201-223.
- Finney, S.J. and DiStefano, C. (2006) Non-normal and Categorical Data in Structural Equation Modeling. In Hancock, G.R. and Mueller, R.O. (editors) *Structural Equation Modeling: A Second Course*. Information Age Publishing, Inc.
- Grönroos, C. (1991) The marketing strategy continuum: towards a marketing concept for the 1990s. *Management Decision*. 29(1): 7-13.
- Gummesson, E. (1994) Making Relationship Marketing Operational. *International Journal of Service Industry Management*. 5(5): 5-20.
- Han, J. K., Kim, N. and Srivastava, R.K. (1998). Market Orientation and Organisational Performance: Is Innovation a Missing Link? *Journal of Marketing*. 62 (October): 30-45.
- Homburg, C. and Pflesser, C. (2000) A Multiple-Layer Model of Market-Oriented Organizational Culture: Measurement Issues and Performance Outcomes. *Journal of Marketing Research*. 37(4): 449-462.
- Hooley, G.J., Greenley, G., Cadogan, J.W. and Fahy J. (2005) The performance impact of marketing resources. *Journal of Business Research*. 58(1): 18-27.

- Hult, G.T.M. and Ketchen, D.J. (2001) Does market orientation matter? A test of the relationship between positional advantage and performance. *Strategic management journal*. 22(9): 899-906.
- Hult, G.T.M., Ketchen, David J. and Slater, S.F. (2005) Market Orientation and Performance: An Integration of Disparate Approaches. *Strategic Management Journal*. 26(12): 1173–81.
- Hunt, S.D. and Morgan, R.M. (1995) The Comparative-Advantage Theory of Competition. *Journal of Marketing*. 59(April): 1–15.
- Hurley, R.F. and Hult, G.T.M. (1998) Innovation, Market Orientation, and Organizational Learning: An Integration and Empirical Examination. *Journal of Marketing*. 62(July): 42-54.
- Jöreskog, K.G. and Sörbom. D. (2005), LISREL 8.72 for Windows. New York: Scientific Software International.
- Kirca, A.H., Jayachandran, S. and Bearden, W.O. (2005) Market Orientation: A Meta-Analytic Review and Assessment of Its Antecedents and Impact on Performance. *Journal of Marketing*. 69(2): 24-41.
- Kline, R.B. (2005) *Principles and Practice of Structural Equation Modeling* (2nd edition). The Guilford Press.
- Kohli, A.K. and Jaworski, B.J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*. 54(2): 1-18.
- Langerak, F. (2003) An Appraisal of Research on the Predictive Power of Market Orientation. *European Management Journal*. 21(4): 447-464.
- Langerak, F., Hultink, E.J. and Robben, H.S.J. (2004) The Impact of Market Orientation, Product Advantage, and Launch Proficiency on New Product Performance and Organizational Performance. *Journal of Product Innovation Management*. 21(2): 79 – 94.
- Langerak, F., Hultink, E.J. and Robben, H.S.J. (2007) The mediating role of new product development in the link between market orientation and organizational performance. *Journal of Strategic Marketing*. 15(4): 281 – 305.
- Lee, C., Lee, K., and Pennings, J. M. (2004) Internal capabilities, external networks, and performance: A study on technology-based ventures. *Strategic Management Journal*. 22(6/7): 615–640.
- Matsuno, K. and Mentzer, J.T. (2000) The Effects of Strategy Type on the Market Orientation-Performance Relationship. *Journal of Marketing*. 64(4): 1-16.
- Mentzer, J.T., DeWitt, W., Keebler, J.S., Min, S., Nix, N.W., Smith, C.D. and Zacharia, Z.G. (2001) Defining supply chain management. *Journal of Business Logistics*. 22(2): 1-25.
- Min, S., Mentzer, J.T. and Ladd, R.T. (2007) A market orientation in supply chain management. *Journal of the Academy of Marketing Science*. 35(4): 507-522.
- Mithas, S., Krishnan, M. and Fornell, C. (2005) Why Do Customer Relationship Management Applications Affect Customer Satisfaction? *Journal of Marketing*. 69(4): 201-209.
- Narver, J.C. and Slater, S.F. (1990) The Effect of a Market Orientation on Business Profitability. *Journal of Marketing*. 54(4): 20-35.
- Narver, J.C., Slater, S.F. and MacLachlan, D.L. (2004). Responsive and proactive market orientation and new-product success. *Journal of Product Innovation Management*. 21(5): 334-347.

- Ramaswami, S.N., Bhargava, M. and Srivastava, R. (2004) Market-based Assets and Capabilities, Business Processes, and Financial Performance. Marketing Science Institute Working Paper.
- Ravindranath, M. and Grover, R. (1998) From Embedded Knowledge to Embodied Knowledge: New Product Development as Knowledge Management. *Journal of Marketing*. 62(October): 1–12.
- Ryals, L. (2005) Making Customer Relationship Management Work: The Measurement and Profitable Management of Customer Relationships. *Journal of Marketing*. 69(4): 252-261.
- Slater, S.F. and Narver, J.C. (1994) Market orientation, customer value, and superior performance. *Business Horizons*. 37(2): 22-28.
- Slater, S.F. and Narver, J.C. (1995) Market Orientation and the Learning Organization. *Journal of Marketing*. 59(July): 63-74.
- Srivastava, R.K., Fahey, L. and Christensen, H.K. (2001) The resource-based view and marketing: The role of market-based assets in gaining competitive advantage. *Journal of Management* 27: 777–802.
- Srivastava, R.K., Shervani, T.A. and Fahey, L. (1999) Marketing, Business Processes, and Shareholder Value: An Organizationally Embedded View of Marketing Activities and the Discipline of Marketing. *Journal of Marketing*. 63(Special Issue): 168-179.
- Tan, K., Kannan, V.R., Handfield, R.B. and Ghosh, S. (1999) Supply chain management: an empirical study of its impact on performance. *International Journal of Operations & Production Management*. 19(10): 1034 – 1052.
- Vorhies, D.W. and Harker, M. (2000) The Capabilities and Performance Advantages of Market-Driven Firms: An Empirical Investigation. *Australian Journal of Management*. 25(2): 145-172.
- Vorhies, D.W. and Morgan, N.A. (2005) Benchmarking Marketing Capabilities for Sustainable Competitive Advantage. *Journal of Marketing*.

Appendixes

*** FOR REVIEW PROCESS ONLY ***

Standardized loadings (measurement model)

Construct	Variable	Loading
Market Orientation	1. Our business objectives are driven primarily by customer satisfaction	0.67
	2. We rapidly respond to competitive actions that threaten us	0.61
	3. We constantly monitor our level of commitment an orientation to serving customers needs	0.70
	4. We freely communicate information about our successful and unsuccessful customer experiences across all business functions	0.65
	5. Our strategy for competitive advantage is based on our understanding of customers needs	0.71
	6. All of our business functions (e.g., marketing/sales, manufacturing, R&D, finance/accounting, etc.) are integrated in serving the needs of our target markets	0.67
	7. Our business strategies are driven by our beliefs about how we can create greater value for our customers	0.69
	8. We give close attention to after-sales service	0.60
	9. All of our managers understand how everyone in our business can contribute to creating customer value	0.65
New Product Development	1. Ability to develop new products/services	0.71
	2. Exploitation of new business models	0.71
	3. Rapid commercialization of ideas	0.69
	4. The amount of product or service innovations	0.75
	5. Successfully launching new products/services	0.71
	6. R&D performance	0.62
Customer Relationship Management	1. Enhancing customer loyalty / customer relationship retention	0.68
	2. Delivering what your customers want	0.70
	3. Identifying potential new customers	0.64
	4. Developing/executing service programs	0.78
	5. Developing and executing customer encounters	0.80
	6. Degree of responsiveness to customer enquiries and requests	0.65
Supply Chain Management	1. Attracting and retaining the best distributors	0.76
	2. Attracting and retaining the best retailers	0.72
	3. Managing customer services, such as installation and maintenance to enable product use	0.76
	4. Order processing, pricing, billing, rebates, and terms	0.63
	5. Designing and managing logistics	0.71
	6. Providing high levels of service support to distributors	0.80
Business Performance	1. Profitability compared to competitors	0.88
	2. Return on investment compared to competitors	0.99
	3. Return on assets compared to competitors	0.98