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Strategic orientations, marketing proactivity and firm market performance

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ABSTRACT

Guided by strategic orientations, firms must continuously deliver superior value in order to maintain a strong position in the market over the long-term. This study explores how two prominent strategic orientations (i.e., market and technological orientations) influence a firm's marketing proactivity and performance, with marketing proactivity being the key to delivering continuously superior value. Specifically, we examine how the cultural (i.e., a proactive market orientation) and the behavioral (i.e., market pioneering) dimensions of marketing proactivity, and the interaction between them, affects a firm's market performance. A structural equation modeling analysis of survey data from 109 firms shows that a proactive market orientation and market pioneering have a significant positive impact on the sales per employee and the growth rate of a firm. Our findings suggest that market pioneering strengthens the positive relationship between proactive market orientation and sales per employee and growth rate. A firm's technological orientation is positively related to both its proactive market orientation and market pioneering. However, the responsive market orientation of a firm only has a significant positive effect on proactive market orientation, and not on market pioneering. We discuss the theoretical and managerial implications of these findings.

1. Introduction

In creating these great products, we focus on enriching people's lives, a higher cause for the product.

(Tim Cook, CEO Apple, *Businessweek*, December 6, 2012)

Firms must deliver continuously superior value to their customers in order to have a strong position in the market over the long-term. Strategic orientations reflect a firm's philosophy of how to conduct business and guides its attempts to achieve superior performance (Zhou, Yim, & Tse, 2005). This study focuses on how two prominent strategic orientations, market and technological orientation, affect a firm's marketing proactivity (i.e., ability to innovate) and consequently its performance (Gatignon & Xuereb, 1997; Kirca, Jayachandran, & Bearden, 2005).

Delivering continuously superior value is not the result of luck, but rather of marketing proactivity. Marketing proactivity is primarily an aspect of a firm's culture, a proactive market orientation, which emphasizes the importance of discovering and satisfying not only the needs of current customers but of future customers as well (Narver, Slater, & MacLachlan, 2004). Because a firm's corporate culture influences that firm's success only if it stimulates the proper behaviors for the firm's performance (Day, 1994; Homburg & Pflesser, 2000), marketing proactivity has also been considered from a behavioral perspective (Spanjol, Mühlmeier, & Tomczak, 2012). From this perspective, marketing proactivity essentially refers to market pioneering, defined as being the first to market with an innovation (Kerin, Varadarajan, & Peterson, 1992; Yadav, Varadarajan, & Shankar, 2008). To date, the cultural and the behavioral dimensions of marketing proactivity have been considered separately, so that we do not know whether and how a proactive market orientation and market pioneering interact to improve a firm's performance in the market.

Although marketing proactivity is critical for a firm's performance in the market, all firms do not have the same level of marketing proactivity. This raises the question: how can a firm stimulate marketing proactivity throughout its organization? Drawing upon extant literature, we propose that a firm's strategic orientations provide a strong impetus that stimulates marketing proactivity. This view is consistent with the Stimulus-Organism-Response (SOR) perspective, which explains a behavior as a *response* resulting from a *stimulus* processed by an *organism* (Hebb, 1966; Mehrabian & Russell, 1974). The SOR framework has been applied to explain both individual (e.g., Chang, Eckman, & Yan, 2011), as well as organizational behaviors (e.g., Spanjol et al., 2012). Building on this line of reasoning, we examine how a firm's technological and responsive market orientations (i.e.,

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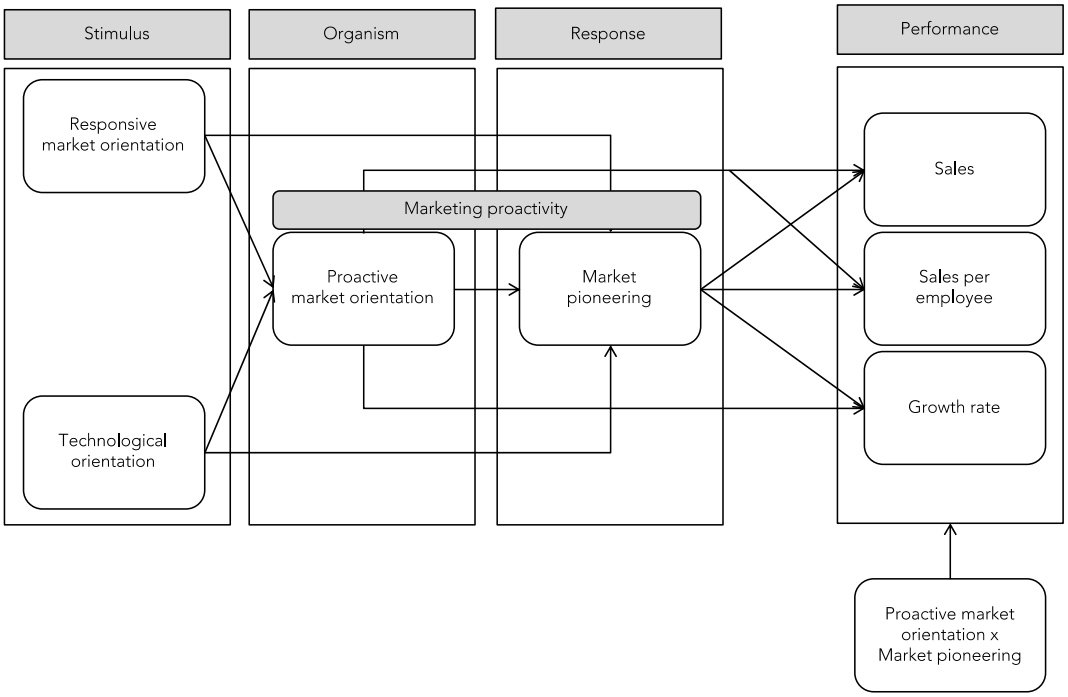

Fig. 1. Proposed Model*.

stimulus) influence its proactive market orientation (i.e., *organism*), and subsequently its market pioneering (i.e., *response*).

We begin with a brief review of relevant extant research on strategic orientations and their effects on marketing proactivity. We then develop hypotheses related to: (Abubakar & Bambale, 2016) how a firm's market and technological orientations stimulate the two dimensions of a firm's marketing proactivity (i.e., proactive market orientation and market pioneering) and (Anseel, Lievens, Schollaert, & Choragwicka, 2010) how the two dimensions of a firm's marketing proactivity and their interaction impact a firm's performance in the market. Finally, we discuss the theoretical and managerial implications of this research.

2. Theoretical framework

2.1. Strategic orientations and marketing proactivity

We draw upon the Stimulus-Organism-Response model (e.g., Bagozzi, 1986; Hebb, 1966; Mehrabian & Russell, 1974) as the overarching framework to guide the development of the conceptual model proposed in Fig. 1. The SOR model represents the relationship between the factors/influences that affect the internal states of an entity (i.e., *stimulus*) and the resulting behaviors/reactions of the entity (i.e., *response*), where the internal processes and structures of the entity (i.e., *organism*) mediate the relationship between the stimulus and the response. For instance, Matsuno, Mentzer, & Özsomer, 2002show that a firm's preference for innovativeness, risk taking, and proactiveness (i.e., *stimulus*) influences the way the organization is structured (i.e., *organism*), and ultimately the firm market behaviors (i.e., *response*).

While the SOR model has been extensively used to predict individual and consumer behaviors in various contexts (e.g., Jacoby, 2002; Eroglu, Machleit, & Davis, 2001; Chang et al., 2011), recent research has extended the application of this framework to organizational settings (e.g., Liu & Fang, 2006; Spanjol et al., 2012).

Spanjol et al. (2012) argue that organizations differ in how they select, process, interpret, and respond to stimuli in their environment, based on their strategic orientations. Where, “strategic orientation reflects the firm's philosophy of how to conduct business through a deeply rooted set of values and beliefs that guides the firm's attempt to achieve superior performance” (Zhou et al., 2005, p. 44). These strategic orientations not only focus the organization on one or more fundamental elements in its environment (e.g., customers, competitors, and/or technology), they also influence the mindset of the organization as it interprets and processes the information or stimuli it receives (e.g., responsively or proactively). This in turn influences the firm's response to the stimuli.

From this perspective, the SOR model suggests that certain strategic orientations of the firm represent the *stimulus*, because they focus on one or more core elements in the firm's environment (e.g., customers, competitors, and/or technology), while others represent the internal mindset of the firm that helps the firm process and interpret the information it receives (i.e., *organism*). The combination of the two results in the *response* from the firm (e.g., market pioneering).

Five alternative strategic orientations have been identified in the marketing and management literature (Gatignon, Gotteland, & Haon, 2015): market, technological, production, selling, and entrepreneurial orientation. It was important to note that although distinct, these orientations are not independent of each other. For example, a market orientation puts the customer at the center of the firm's strategy and behaviors. However, a firm cannot satisfy the customer continuously if it is not able to integrate its technological knowledge into the development of new products or services to satisfy the new needs of customers, that is, if it has no technological orientation. In this study we focus on two prominent strategic orientations that have been shown to influence a firms' success and its ability to innovate (Gatignon & Xuereb, 1997; Kirca et al., 2005): market orientation (with its two dimensions of responsive and proactive market orientation) and technological orientation.

Firms are looking to achieve superior competitive advantage through the creation of sustainable and superior value for the customer, that is, through market orientation. In a longitudinal study, Kumar, Jones, Venkatesan, & Leone, 2011found that a market orientation had a positive short-term as well as long-term impact upon business performance. Gatignon and Xuereb (1997) note that in addition to such a market orientation, firms need a complementary technological background and ability (i.e., a technological orientation) in order to innovate. Hence, we focus on the firm market orientation and its

technological orientation.

Narver et al., 2004make a distinction between a responsive market orientation and a proactive market orientation. While a responsive market orientation attempts to understand and satisfy the expressed needs of customers, a proactive market orientation attempts to understand and to satisfy the latent needs of customers, that is future needs of which the customers are not yet aware and which they cannot yet express (Ketchen Jr., Hult, Tomas, & Slater, 2007; Narver et al., 2004; Narver & Slater, 1990).

Thus, on one hand, a responsive market orientation and a technological orientation help focus the firm on the core elements in its environment and act as a *stimulus* under the SOR model; while, on the other hand, uncovering latent needs through proactive market orientation represent a future-oriented proactive mindset (i.e.., *organism*) that determines the *response* of the firm in terms of driving the evolution of markets (e.g., Abubakar & Bambale, 2016; Hills & Sarin, 2003; Jaworski, Kohli, & Sahay, 2000; Narver et al., 2004; Özturan, Özsomer, & Pieters, 2014; Kerin et al., 1992; Spanjol et al., 2012). Thus, the combination of the strategic orientations and the marketing proactivity determines the firm market performance (Hills & Sarin, 2003; Jaeger, Zacharias, & Brettell, 2016; Narver et al., 2004; Kerin et al., 1992).

Here we focus on three objective measures of market performance: sales, firm growth rate, and sales per employee. Generally, purely sales/revenue-based performance measures are skewed towards larger firms; hence growth rate is added as an additional performance measure in order to restore the balance in favor of small/medium firms. Additionally, sales/employee is considered as an efficiency-based performance variable that accounts for variances between firms from different industries. Fig. 1 presents the conceptual model proposed in this study.

2.2. Effect of responsive market orientation and technological orientation, on proactive market orientation

Levitt (1980) states that a business should not limit itself by giving customers only what they need now (responsiveness) but should also look ahead and anticipate what their future wants and/or needs will be. Levitt argues that a firm must *first* engage in “customer-benefiting” for “customer-keeping” *before* it can develop products with the potential to attract and keep customers proactively by exceeding their immediate expectations.

A firm with a responsive market orientation exhibits a culture and behaviors that are consistent with the marketing concept (Kohli & Jaworski, 1990). The marketing concept puts the customer at center stage of the organization, such that “the whole business [is] seen from the point of view of its final result, that is, from the customer's point of view” (Drucker, 1954, p. 39). The marketing concept promotes a long-term orientation: it emphasizes the importance of building long-term relationships between a firm and the customers to achieve business success, even at the possible detriment of short-term profits (Felton, 1959; Han, Kim, & Srivastava, 1998).

Because a firm with a responsive market orientation has a long-term orientation, that firm should emphasize the importance of discovering and satisfying future (latent) customer needs (Day, 1994), i.e., to be proactively oriented to the market. This is in line with the marketing concept, which clearly prompts a proactive perspective (Zeithaml & Zeithaml, 1984).

However, customers are not aware of their latent needs. Discovering latent needs requires that a firm enhance its traditional market research methods with more advanced methods (Narver et al., 2004). This suggests that before a firm can develop proactive market abilities, it first needs to develop strong responsive market abilities. The literature suggests that developing responsive marketing abilities is easier than developing proactive marketing abilities (Levitt, 1980; Urban & von Hippel, 1988; Narver et al., 2004; Atuahene-Gima, Slater, & Olson, 2005). Once a firm becomes sufficiently sensitized to the expressed needs of the market, it becomes easier for that firm to become more adept at detecting the latent needs of the market (Atuahene-Gima et al., 2005; Urban & von Hippel, 1988). Hence, we posit:

H_1. :A responsive market orientation is positively associated with a proactive market orientation

A firm rarely has a single strategic orientation. Some of these strategic orientations are complementary and could occur simultaneously to some degree. Creating continuous superior value to customers is impossible if a firm cannot recognize and satisfy new needs, meaning it must use its technical knowledge to develop new solutions. This “ability and will to acquire a substantial technological background and use it in the development of new products” refers to a strategic orientation that is technological orientation and as such is complementary to a market orientation (Gatignon & Xuereb, 1997, p. 78). Technologically oriented firms endeavor to apply the latest in technology (Zhou et al., 2005) and have a high level of knowledge and aptitude regarding technology (Workman, 1993).

A firm with a technological orientation uses its technology to deliver continuous superior value to the market (Gatignon & Xuereb, 1997; Srinivasan, Lilien, & Rangaswamy, 2002), subsequently becoming oriented to that market. For instance, research on radical innovation shows that radical technologies often result from a technological push from the organization, which results in unearthing latent needs in the market (e.g., Hills & Sarin, 2003; Leifer et al., 2000). Technologically oriented firms have strong R&D and proactively seek or acquire new technologies and innovations in order to develop better products than those of the current or potential competition (Gatignon & Xuereb, 1997; Golder & Tellis, 1993). It is proactiveness that triggers a firm to seek out product innovations (Foxall, 1984). Thus, having a strong technological orientation may result in a firm opportunistically developing a proactive understanding of the latent needs of the customers (Srinivasan et al., 2002). Hence, we posit:

H_2. :A technological orientation is positively associated with a proactive market orientation

3. Effect of market orientation and technological orientation, on market pioneering

A firm is considered to be a market pioneer when “the organization proactively creates or is among the first to enter a new market arena that others have not recognized or actively sought to exploit” (Covin, Slevin, & Heeley, 2000, p. 177). Firms differ in their proclivity to pioneer (Moore, Boulding, & Goodstein, 1991). One explanation is that pioneering has been associated with certain distinct capabilities including: (Abubakar & Bambale, 2016) identifying the most attractive segments in the market, which is a market capability (Kerin et al., 1992; Lieberman & Montgomery, 1988) and (Anseel et al., 2010) acquiring the new technologies that are necessary in order to develop new products with a technological advantage, which is a technological capability (Lieberman & Montgomery, 1988). Kohli and Jaworski (1990) uncovered yet another key element in developing such an ability -focus on the customer. Especially critical in their research was the finding that firms need to look at the future needs of their customers (i.e., to be *proactive*).

Based on the SOR model, a pioneering ability may result from strategic orientations that stimulate the acquisition of market and technological capabilities throughout the organization. A responsive market orientation stimulates the acquisition of information about the market (Homburg & Pflesser, 2000). Therefore, a responsive market orientation is likely to stimulate a firm's ability to identify the most attractive segments in the market, which is a distinctive ability of pioneers. We thus regard a responsive market orientation as a stimulus of market pioneering. Hence, we posit:

H_3. :A responsive market orientation is positively associated with market pioneering

Pioneering firms will often enter a new product market when their product has a technological advantage over current offerings in that market (Lieberman & Montgomery, 1988). A firm with a technological orientation has the will and the ability to develop new products that contain such a technological advantage. Indeed, a technological orientation indicates that strong R&D is necessary in order to develop and launch innovative products (Gatignon & Xuereb, 1997; Srinivasan et al., 2002). Market pioneers often have a new market entry based on technology-push (Garrett, Covin, & Slevin, 2009; Hills & Sarin, 2003). This "push" is also the mark of a technological orientation (Zhou et al., 2005).

A technologically oriented firm has a strong research and development effort, actively acquires new technologies, and works to apply the latest advances in technology (Gatignon & Xuereb, 1997; Zhou et al., 2005). These firms have a high degree of technology knowledge and aptitude (Workman, 1993). Firms with a technological orientation are continuously seeking to develop better products than their current or potential competition by keeping up-to-date with the latest technological developments (Gatignon & Xuereb, 1997; Golder & Tellis, 1993). Thus, a technological orientation encourages a firm to acquire new technologies. Such an acquisition of new technologies facilitates the development of new products that contain a technological advantage (Koellinger, 2008). By adopting a strong technology base, a technologically oriented organization can change the entire nature of the competition, and often create a new business model. Hence, we posit:

H_4. :A technological orientation is positively associated with market pioneering

Businesses should not limit themselves by only giving customers what they want (responsiveness), but should go further and proactively give the customers what they have not yet thought (Levitt, 1980). Narver et al. (2004) argue that a market orientation could be either responsive or proactive. They suggest that having a proactive market orientation will enable firms to development innovative products that will lead to new product success.

The two aspects of a firm's marketing proactivity – a proactive market orientation and market pioneering – are not independent of each other but rather go hand in hand. Proactiveness means seeking new opportunities, even if they are not part of the present business (Venkatraman, 1989). Having a proactive market orientation allows a firm to uncover the latent needs of the market (Jaworski et al., 2000). Inherent in this argument is the assumption that a firm does so before any other firm in the market (otherwise the needs would no longer be latent). Being the first to uncover a latent need in the market encourages entrepreneurial behavior and provides the firm with a strong incentive to be among the first to enter the market with a new product (Covin et al., 2000). It is proactiveness that triggers a firm to seek out product innovations (Foxall, 1984). Market pioneering is then simply a proactive behavior looking to exploit new ideas and opportunities. We argue that a proactive market orientation acts as an antecedent to market pioneering as the proactive organization is generally among the first to enter a new product or market area (Covin et al., 2000). Therefore, we expect a proactive market orientation to promote market-pioneering behaviors in the organization. Hence, we posit:

H_5. : A proactive market orientation is positively associated with market pioneering

4. Effect of marketing proactivity on firm market performance

A firm with a proactive market orientation is innovative (Blocker, Flint, Myers, & Slater, 2010). Indeed, a firm is innovative if it has the will and capacity to innovate. Bureaucracies negatively affect innovation: they emphasize rules over problem solving and generating new ideas (Kohli & Jaworski, 1990). Creativity is necessary in order to be innovative. A dynamic organization is needed in order for creativity to thrive. These two concepts of motivation and ability translate into a firm's innovativeness, i.e., "a firm's receptivity and inclination to adopt new ideas that lead to the development and launch of new products" (Rubera & Kirca, 2012, p. 130). Firms are not innately innovative. If a firm wishes to foster innovativeness, it must nurture a particular type of strategic orientation, one that is receptive to new ideas that can lead to innovation.

The link between a firm's ability to innovate and its market performance has been well established (e.g., Mansfield, 1961; Soni, Lilien, & Wilson, 1993). Rubera and Kirca (2012) integrate 153 studies and conclude that a firm's ability to innovate has a positive effect on a firm's market performance. Therefore, we expect a proactive market orientation to be associated with superior market performance (Lamore, Berkowitz, & Farrington, 2013), along the three different indicators of a firm's market performance: sales, sales per employee and firm's growth rate (see Rubera & Kirca, 2012; Soni et al., 1993). The multiple indicators allow us to control for variances in the performance due to firm size and industry. Hence, we posit:

H_6. :A proactive market orientation is positively associated with a firm's (a) sales, (b) sales per employee, and (c) growth rate

The relationship between market pioneering and firm performance has been the focus of significant interest in the literature (Kerin et al., 1992; Szymanski, Troy, & Bharadwaj, 1995). Although market pioneering has higher initial costs and risks of failure (Golder & Tellis, 1993, 2002), significant evidence suggests that, relative to their competitors, pioneering firms are often able to preempt scarce resources, control proprietary knowledge, exercise technological leadership, have a faster learning curve, enjoy superior customer perceptions, and achieve greater economies of scale (Boulding & Christen, 2008; Kerin et al., 1992; Lieberman & Montgomery, 1988; Yadav et al., 2008). In a meta-analysis of 23 studies, Szymanski et al. (1995) found a direct and positive relationship between a firm's market pioneering and its market share. We extend the same argument to other indicators of a firm's market performance as well: sales, sales per employee and growth rate. Hence, we posit:

H_7. :Market pioneering is positively associated with a firm's (a) sales, (b) sales per employee, and (c) growth rate

Market pioneering could very well be regarded as one of the consequences of a proactive market orientation. A firm is considered a market pioneer when it enters a new product area or creates a new market proactively, and when other firms have yet to recognize the opportunity (Covin et al., 2000; Kerin et al., 1992). Venkatraman (1989) referred to proactiveness as seeking new opportunities, even if they are not part of the present business. Proactive firms establish a climate where new ideas and new products are advocated, and use these innovations to enter new markets or refresh existing ones (Hult & Ketchen, 2001). A firm's future-oriented, proactive mindset in terms of a proactive market orientation and market pioneering are not independent of one another. A firm's ability to understand and reveal the latent needs of the market is much more useful if the firm is also able to capitalize on this knowledge with an ability to deliver superior value to customers ahead of its competitors (Hills & Sarin, 2003; Rubera & Kirca, 2012).

The ability to move from simply uncovering latent information to driving changes in the behavior of markets, firms, and industries is critical to a firm's performance and success (Jaworski et al., 2000). For example, a proactive market orientation enables the development of innovative products (Narver et al., 2004). The success of a proactive market orientation is likely to be more pronounced if the firm is also among the first in the market with such innovations (Hills & Sarin, 2003). Thus, the positive relationship between a proactive market

orientation and firm performance is likely to be stronger for firms that display a stronger market pioneering mindset and ability, and compared to firms that display such an ability to a lesser extent. Hence, we posit:

H_8. :Market pioneering will positively moderate the relationships between a proactive market orientation and a firm's (a) sales, (b) sales per employee, and (c) growth rate

5. Methodology

5.1. Study context and sample

The proposed hypotheses were tested using a survey of a broad sample of U.S. firms of various sizes, across a variety of industries. This was done to ensure sufficient variance in the sample. Given the nature of the study, it was important for the informants to have a broad overview of firm's strategies. Therefore, senior executives of the firms were deemed suitable to act as key informants for this study. Respondents at this level have a broad, organization-wide perspective and are deemed qualified to provide informed responses to the questions asked in the survey (Sethi, 2000). Using various published and publicly available industry sources, contact information for general manager and C-level executives was gathered from 2153 small, medium, and large companies. These executives were contacted via e-mail and sent a link to a web-based survey using Qualtrics. Respondents were assured of complete confidentiality and anonymity.

Of the 2153 respondents contacted, 179 e-mails bounced back due to inaccurate contact information. We received 143 responses giving us a response rate of 7.2%. However, 34 responses contained missing data regarding the industry they represented resulting in 109 completed responses on which the analysis could be conducted. While low, this response rate is consistent with recent findings in the literature. In a meta-analysis of 2037 surveys in organizational studies, Anseel et al. (2010) found that response rates from senior executives and top managers tend to be among the lowest in organizational populations (Cycyota & Harrison, 2006). Furthermore, e-mailed web-based surveys tend to have consistently lower response rates compared to mailed hard copy surveys (Cycyota & Harrison, 2006).

Random follow-up contacts and control checks revealed that the intended targets were indeed reached and responded to the surveys. All the non-respondents contacted cited a lack of time as the reason for declining to participate. We compared early respondents with late respondents and found no significant difference in the mean responses for any of the constructs, indicating that non-response bias was not likely to be a concern in this study (Armstrong & Overton, 1977).

The average firm in the sample was 45.4 years old and had 12,315 employees. The firms represented a variety of industries, such as agribusiness, automotive, consumer electronics, defense, energy, general manufacturing, hardware, medical devices, pharmaceuticals, software, and transportation. Table 1 presents the descriptive statistics for each variable, and the intercorrelations between the variables. Table 1 also shows that multicollinearity among independent variables is not likely to be a major concern in the data.

5.2. Measures and scale refinement

Wherever possible, existing scales were used in this study. The Appendix presents the scales used to measure the constructs. The survey instrument was pretested on a sample of 38 senior executives enrolled in a part-time Doctoral program in Management. As such, the pretest respondents were expected to be conversant with both the academic and industrial perspectives on the scale development. The pretest did not reveal any major issues, and with minor changes to the language, instructions, or execution of the survey, the survey was deemed ready for a large-scale rollout.

Table 1
Descriptive statistics and intercorrelation Table.

	Mean (s.d.)	VIF	1. Age	2. Competitive intensity	3. Interfunctional coordination	4. Market pioneering	5. Proactive market orientation	6. Responsive market orientation	7. Size	8. Technological orientation	9. Technological turbulence	10. Sales	11. Sales per employee	12. Growth
1	45.4 (3.6)	1.6	1											
2	5.13 (1.79)	1.25	0.02	1										
3	6.49 (1.98)	1.95	−0.161*	−0.069	1									
4	5.96 (2.27)	1.63	−0.151*	−0.133	0.358***	1								
5	6.24 (2.05)	2.19	−0.159*	−0.118	0.537***	0.514***	1							
6	6.86 (1.94)	2.44	−0.062	−0.032	0.644***	0.369***	0.660***	1						
7	12,315 (2680)	9.21	0.443***	0.041	−0.196**	−0.048	−0.255**	−0.174**	1					
8	6.29 (2.17)	2.1	−0.159*	−0.169*	0.559***	0.473***	0.653***	0.635***	−0.081	1				
9	6.32 (2.14)	1.57	−0.059	0.076	0.291***	0.268***	0.443***	0.354***	−0.020	0.448***	1			
10	9848 (1357)[a]	5.59	0.565***	0.078	−0.128	0.051	−0.154*	−0.045	0.885***	−0.010	0.067	1		
11	2.31 (1.78)[a]	4	−0.383***	0.13	0.052	0.113	0.249***	0.157*	−0.788***	0.05	0.067	−0.619***	1	
12	28.33 (5.46)	1.44	−0.288***	−0.150	−0.034	0.178*	0.269***	0.076	−0.347***	0.199**	0.081	−0.339***	0.433***	1

[a] In million USD.
* $p \leq .10$.
** $p \leq .05$.
*** $p \leq .01$; $n = 109$.

Table 2
Results of the SEM analysis.

Hypotheses	From	To	Path coefficient	*p*-value
H_1	Responsive market orientation	Proactive market orientation	0.354	≤ 0.01
H_2	Technological orientation	Proactive market orientation	0.242	≤ 0.01
H_3	Responsive market orientation	Market pioneering	- 0.031	n.s.
H_4	Technological orientation	Market pioneering	0.233	≤ 0.05
H_5	Proactive market orientation	Market pioneering	0.418	≤ 0.01
H_{6a}	Proactive market orientation	Sales	- 0.084	n.s.
H_{6b}	Proactive market orientation	Sales per employee	0.166	≤ 0.01
H_{6c}	Proactive market orientation	Growth rate	0.301	≤ 0.01
H_{7a}	Market pioneering	Sales	0.122	≤ 0.01
H_{7b}	Market pioneering	Sales per employee	0.095	≤ 0.05
H_{7c}	Market pioneering	Growth rate	0.123	≤ 0.10
H_{8a}	Proactive market orientation x Market pioneering	Sales	−0.025	n.s.
H_{8b}	Proactive market orientation x Market pioneering	Sales per employee	0.126	≤ 0.01
H_{8c}	Proactive market orientation x Market pioneering	Growth rate	0.299	≤ 0.01
Controls				
	Technological turbulence	Proactive market orientation	0.172	≤ 0.05
	Size	Proactive market orientation	−0.190	≤ 0.01
	Size	Market pioneering	0.074	n.s.
	Size	Sales	0.789	≤ 0.01
	Technological turbulence	Sales	0.104	≤ 0.05
	Competitive intensity	Sales	0.035	n.s.
	Interfunctional coordination	Sales	−0.043	n.s.
	Age	Sales	0.106	≤ 0.05
	Industry-2	Sales	−0.115	≤ 0.01
	Industry-3	Sales	−0.078	≤ 0.05
	Industry-4	Sales	0.013	n.s.
	Industry-5	Sales	−0.025	n.s.
	Industry-6	Sales	−0.136	≤ 0.01
	Size	Sales per employee	- 0.839	≤ 0.01
	Technological turbulence	Sales per employee	0.099	≤ 0.10
	Competitive intensity	Sales per employee	0.156	≤ 0.01
	Interfunctional coordination	Sales per employee	−0.192	≤ 0.01
	Age	Sales per employee	0.130	≤ 0.05
	Industry-2	Sales per employee	−0.037	n.s.
	Industry-3	Sales per employee	0.029	n.s.
	Industry-4	Sales per employee	0.144	≤ 0.01
	Industry-5	Sales per employee	−0.034	n.s.
	Industry-6	Sales per employee	−0.069	n.s.
	Size	Growth rate	−0.207	≤ 0.05
	Technological turbulence	Growth rate	−0.018	n.s.
	Competitive intensity	Growth rate	−0.068	n.s.
	Interfunctional coordination	Growth rate	−0.268	≤ 0.01
	Age	Growth rate	−0.110	n.s.
	Industry-2	Growth rate	0.091	n.s.
	Industry-3	Growth rate	0.213	≤ 0.01
	Industry-4	Growth rate	0.231	≤ 0.01
	Industry-5	Growth rate	0.105	≤ 0.10
	Industry-6	Growth rate	0.076	n.s.

χ^2/d.f. = 1.25, SRMR = 0.031, CFI = 0.987, TLI = 0.960; n.s. = not significant.

Since the constructs were measured using reflective scales, psychometric properties of the scales used were estimated using standard procedures (Churchill, 1979; Gerbing & Anderson, 1988). Per the original conceptualization, we started with five distinct strategic orientations (i.e., competitor orientation, customer orientation, entrepreneurial orientation, innovation orientation, and technological orientation) identified in the literature (e.g., Lumpkin & Dess, 1996; Gatignon & Xuereb, 1997; Narver et al., 2004; Gatignon et al., 2015). The scale refinement process (i.e., including discriminant validity) was carried out on both proactive and responsive market orientations, as well as on technological, innovation and entrepreneurial orientations simultaneously. During this process, these different orientations showed themselves to be non-orthogonal and correlated, as can be expected in real life. Thus, a decision was made to limit the empirical analysis to just responsive market orientation, proactive market orientation, and technological orientation to avoid multicollinearity problems in the analysis.

All these constructs used in our study were measured using well-established and validated measures. The responsive market orientation and proactive market orientation constructs and scales have been well established in the marketing orientation/innovation/new product development literatures for nearly 13 years. Since these constructs and scales were first introduced by Narver et al. (2004), they have been validated independently by multiple studies. The responsive market orientation and proactive market orientation constructs used in our study were measured using well-established scales first proposed by Narver et al. (2004). The original responsive market orientation and proactive market orientation scales developed by Narver et al. (2004) were validated, and their psychometric properties established using standard scale validation procedures recommended in the literature (e.g., Fornell & Larcker, 1981; Gerbing & Anderson, 1988).

The scales used to measure the constructs along with the standardized CFA loadings of each item are presented in the Appendix. The Cronbach α for the scales range from 0.72 to 0.92, demonstrating satisfactory reliability for each scale. Convergent validity is established by each item loading significantly on its underlying scale. With the exception of one item in the control variable of competitive intensity (which loads at 0.48), the standardized loadings of the items meet the

recommended 0.50 threshold. However, this 0.48 threshold was considered close enough to the required threshold to be considered acceptable. Discriminant validity was established using the procedure outlined by Fornell and Larcker (1981). For our constructs, the average variance extracted (ρ_{vc}) is superior to the variance (squared correlations between factor scores) that the constructs share with each other. Thus, all the scales used show good psychometric properties.

5.3. Model estimation and analysis

The model presented in Fig. 1 and the resulting hypotheses were tested using Structural Equation Modeling (SEM) with maximum likelihood estimation. Because a firm's performance and its organizational behavior depend upon its organizational characteristics and on market conditions, we controlled for the effects of market-level (i.e., industry, competitive intensity, and technological turbulence) and organizational-level variables (i.e., age, size, and interfunctional coordination). The results of the hypotheses tests are discussed in the next section.

To test for common method variance (CMV), we first estimated a model in which all items are indicators of one single factor that represents method effects. We found that the model did not fit the data (SRMR = 0.105, CFI = 0.580, TLI = 0.555), indicating that CMV is not likely to be a concern in our analysis. However, in order to control and account for any impact of CMV on the results, we followed the procedure outlined by Podsakoff, MacKenzie, Lee, & Podsakoff, 2003 (p. 168). We re-estimated the model adding a latent common method factor (CMF) to the model. The comparison of the standardized path coefficients with and without the CMF in the model, shows that the significance and the directionality of the structural parameters are not affected. As a result, CMV is not expected to be a concern in our analysis (Podsakoff et al., 2003).

6. Results

The results of the SEM analysis are shown in Table 2 and Fig. 2. The overall model fits the data well (χ^2/d.f. = 1.25, SRMR = 0.031, CFI = 0.987, TLI = 0.960). A responsive market orientation is positively related to a proactive market orientation ($\gamma = 0.354$, $p \leq .01$), but not to market pioneering. Therefore, we find support for H_1 but not for H_3. As hypothesized, a technological orientation is positively and significantly related to both a proactive market orientation ($\gamma = 0.242$, $p \leq .01$) and market pioneering ($\gamma = 0.233$, $p \leq .05$), supporting H_2 and H_4. Consistent with H_5, we find that a higher proactive market orientation is related to greater market pioneering ($\gamma = 0.418$, $p \leq .01$).

A proactive market orientation is found to have a significant positive effect on sales per employee ($\gamma = 0.166$, $p \leq .01$) and the growth rate of the firm ($\gamma = 0.301$, $p \leq .01$); however, contrary to expectations, it has no significant effect on firm sales. Thus, H_{6b} and H_{6c} find support, while H_{6a} does not. Market pioneering on the other hand has a significant positive relationship with sales ($\gamma = 0.122$, $p \leq .01$), sales per employee ($\gamma = 0.095$, $p \leq .05$), and with growth rate ($\gamma = 0.123$, $p \leq .10$). Therefore, H_{7a} and H_{7b} are supported, while H_{7c} finds marginal support. We hypothesized that market pioneering positively moderates the effect of a proactive market orientation on firm performance. The results show that market pioneering has a positive and significant moderating effect on the relationship between a proactive market orientation and both sales per employee ($\gamma = 0.126$, $p \leq .01$) and growth rate ($\gamma = 0.299$, $p \leq .01$). Therefore, H_{8b} and H_{8c} find support, but H_{8a} does not.

Modification indices suggested the addition of several paths to the proposed model. Of the suggested paths, only those whose inclusion was supported by theory or justified by logic were included. Specifically, we added one path between technological turbulence and proactive market orientation ($\gamma = 0.172$, $p \leq .05$) and one path between firm size and proactive market orientation ($\gamma = -0.190$, $p \leq .01$). Adding those paths did not change our conclusions: the model still fits the data well and we found support for the same hypotheses. Fig. 2 presents the modified model.

Finally, we conducted a test for mediations with a bootstrapping approach recommendation by Zhao and Chen (2010) (Hayes, 2013, model 4). The results are shown in Table 3. On the one hand, we find that a proactive market orientation fully mediates the effect of a responsive market orientation on sales per employee and growth rate (confidence interval at 95% does not include 0). However, market pioneering does not mediate the effect of a responsive market orientation on sales, sales per employee and growth rate, since a responsive market orientation is not significantly related to market pioneering ($p > .10$). On the other hand, the effect of technological orientation on sales is fully mediated by market pioneering; but its effect on sales per employee and growth rate is not.

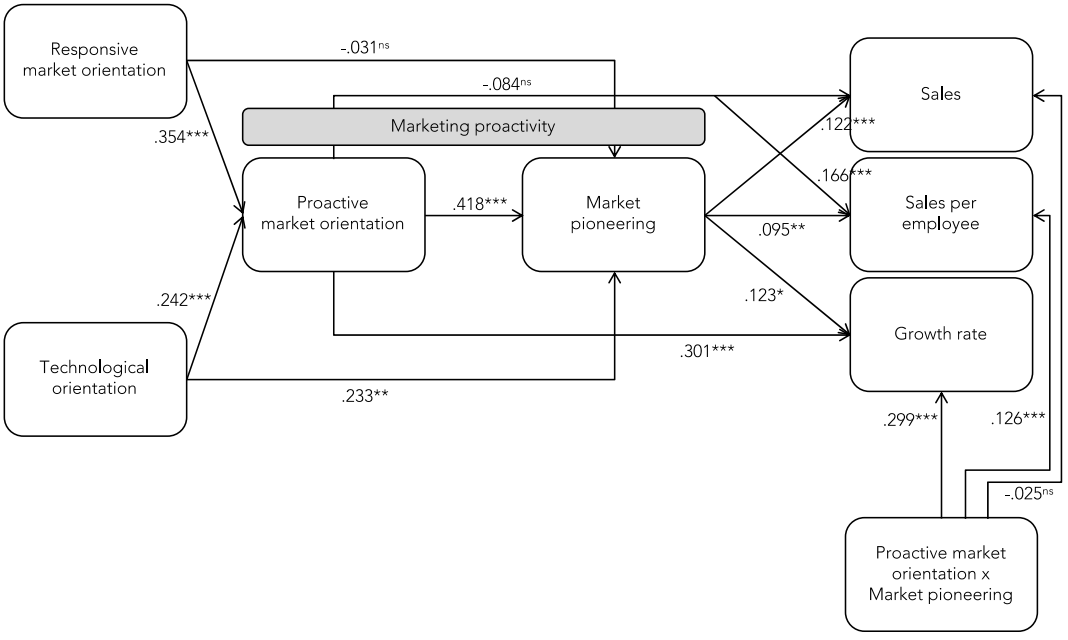

Fig. 2. Revised Model Based on Modification Indices[(a)].

Table 3
Mediation Analysis.

Independent variable (X)	Mediating variable (M)	Dependent variable (Y)	X → Y	X → M → Y
Responsive market orientation	Proactive market orientation	Sales per employee	n.s.	$p \leq .05^{(a)}$
Responsive market orientation	Proactive market orientation	Growth rate	n.s.	$p \leq .05^{(a)}$
Technological orientation	Market pioneering	Sales	n.s.	$p \leq .05^{(a)}$
Technological orientation	Market pioneering	Sales per employee	n.s.	n.s.
Technological orientation	Market pioneering	Growth rate	n.s.	n.s.

n.s. = not significant; (a): confidence interval at 95% does not include 0.

7. Discussion and implications

Using the Stimulus-Organism-Response (SOR) perspective, the objectives of this study were to examine (Abubakar & Bambale, 2016) how the cultural (i.e., proactive market orientation) and the behavioral (i.e., market pioneering) dimensions of marketing proactivity affect a firm's market performance (i.e., sales, growth rate, and sales/employee), and (Anseel et al., 2010) how a firm's technological and responsive market orientations influence its marketing proactivity. Our results demonstrate that (Abubakar & Bambale, 2016) the cultural and the behavioral dimensions of marketing proactivity have a significant positive effect on sales per employee and the growth rate of the firm, (Anseel et al., 2010) market pioneering strengthens the positive relationship between proactive market orientation, and sales per employee and growth rate, and (Armstrong & Overton, 1977) a firm's technological orientation is positively related to both its proactive market orientation and market pioneering.

Our research offers three contributions to the literature on marketing proactivity. First, contrary to other studies that show a positive relationship between responsiveness and market pioneering (e.g., Garrett et al., 2009), our study finds no such effect. Our results suggest that a responsive market orientation does not directly support a move to market pioneering. We show that firms having both a technological and proactive market orientation are more likely to engage in market pioneering than those simply having a responsive market orientation. The positive link between a technological orientation and market pioneering coincides with the requirement that an organization needs a technological orientation in order to deliver superior customer value, ultimately through market pioneering activities (e.g., Gatignon & Xuereb, 1997). The strong link between a proactive market orientation and market pioneering is consistent with extant literature (e.g., Hills & Sarin, 2003; Narver et al., 2004).

Second, the effect of proactive market orientation and market pioneering on sales, sales per employee, and growth rate presents an interesting contrast. Sales per employee and growth rate show a strong relationship with both proactive market orientation and market pioneering. However, only market pioneering has a positive effect on sales; proactive market orientation appears not to be significantly related to sales. A possible explanation for these differential effects could be that proactive market orientation leads to a delay in expected firm outcomes as the customers take additional time to review and decide on the new offerings. It is also possible that given the diversity of firm size and industries in our sample, the effect of proactive market orientation is harder to capture in terms of sheer magnitude of sales in the time period specified by our measures. However, the change and efficiency-based performance measures (i.e., growth rate and sales per employees) might be better at capturing the effect of proactive market orientation on growth rate and sales/employee.

Three, our results show that the positive effect of proactive market orientation on growth rate and sales per employees is strengthened if the firm also engages in market pioneering. Suggesting that while there are obvious benefits to having the ability to uncover latent customer needs (i.e., to having a proactive market orientation), those benefits are greatly enhanced if the firm also possesses the capacity to capitalize on those opportunities in the market before the competition.

Our research also contributes to the literature on market orientation. In this study, we paid specific attention to a prominent strategic orientation that has been shown to influence a firms' market performance and its ability to innovate (Gatignon & Xuereb, 1997; Kirca et al., 2005): market orientation (with its two dimensions of responsive and proactive market orientation). Although creating and maintaining a market orientation is thus critical to a firm's performance, “businesses report limited success in developing such a culture” (Narver et al., 2004: 241). “Even the best-intentioned senior managers find it difficult” (Day, 1994: 11). Research on how organizations transform to become more market oriented has received little attention in the literature (Gebhardt, Carpenter, & Sherry, 2006). Our study offers some insights on how a firm can develop a greater market orientation.

Truly market-oriented firms can satisfy both expressed and latent customers' needs (Ketchen Jr. et al., 2007), that is, they have higher levels of both responsive and proactive market orientation. Past research suggests that responsive market orientation may have inverted U-shaped relationship, while proactive market orientation may have a U-shaped relationship with firm performance (Jaeger et al., 2016). Thus, managers should be able to combine and to balance responsive and proactive market orientation (Herhausen, 2015). Interestingly, we show that a responsive market orientation is positively related to a proactive market orientation. In other words, achieving higher levels of responsive market orientation should lead to higher levels of proactive market orientation.

8. Limitations and future research

Our study is not exempt of limitations. First, although our response rate is typical of surveys targeted at senior executives (Anseel et al., 2010; Cycyota & Harrison, 2006), we acknowledge that a higher response rate would have been desirable. Second, future extensions of this research may benefit from examining strategic orientations from a longitudinal perspective. We think that future studies may lead to new insights by distinguishing between the short-term and long-term outcomes. For example, are there differences between the short-term and long-term performance of firms with a dominant responsive versus proactive market orientation?

Third, a larger sample size within each industry would help examine which strategic orientations are best suited for different industry conditions to optimize a firm's market performance. Also, it would help explain why certain industries may not pursue certain strategic orientations. For example, are firms with production and/or selling orientations likely to outperform firms with market orientation or even entrepreneurial orientations in mature or commoditized industries?

Finally, as mentioned previously, we find no positive direct relationship between responsive market orientation (i.e., stimulus) and

market pioneering (i.e., organism), contrary to what was expected. As market pioneering can result from many factors, research involving different forms of market pioneering could reveal which of the strategic frameworks impact specific market pioneering opportunities.

*: Control variables are not shown.

[(a)]Control variables are not shown; correlations between dependent variables have been added;

χ^2/d.f. = 1.25, SRMR = 0.031, CFI = 0.987, TLI = 0.960.

***: p ≤ .01; **: $p \leq .05$; *: p ≤ .10; ns: not significant.

Appendix A. Appendix

Appendix: Measures

Construct items[c]	Loading[b]
Responsive market orientation	
Measure based on Narver and Slater (1990)	
1. We closely monitor and assess our level of commitment in serving customers' needs.[a]	
2. We freely communicate information about our successful and unsuccessful customer experiences across all business functions.	0.82
3. Our competitive advantage is based on understanding customers' needs.	0.73
4. We frequently measure customer satisfaction.	0.70
5. We are more customer-focused than our competitors.	0.72
6. We believe that our business exists primarily to serve customers.	0.64
7. We rapidly respond to competitors' actions.[a]	
8. Top managers regularly discuss competitors' strengths and weaknesses.	0.68
9. Customers are targeted when the organization has an opportunity for competitive advantage.[a]	
α = 0.86; AVE = 59.37%; ρ_{vc} = 0.51	
χ^2/d.f. = 1.96; SRMR = 0.030; TLI = 0.957; CFI = 0.974	
Technological orientation	
Measure based on Han, Kim, and Kim (2001)	
1. We use the latest technologies in new product development.	0.92
2. Our products are on the leading edge of the industry standard.	0.81
3. We systematically scan for new technologies inside and outside the industry.	0.80
4. Significant portions of profit are reinvested in R&D.[a]	
5. Regular R&D meetings are attended by all top executives.	0.55
α = 0.85; AVE = 69.89%. ρ_{vc} = 0.66	
χ^2/d.f. = 3.11; SRMR = 0.023; TLI = 0.954; CFI = 0.985	
Proactive market orientation	
Measure based on Narver et al. (2004)	.
1. We help our customers anticipate developments in their markets.	0.68
2. We continuously try to discover additional needs of our customers of which they are unaware.	0.82
3. We incorporate solutions to unarticulated customer needs in our new products and services.	0.84
4. We brainstorm on how customers use our products and services.	0.87
5. We innovate even at the risk of making our own products obsolete.	0.84
6. We search for opportunities in areas where customers have a difficult time expressing their needs.	0.87
7. We work closely with lead users who try to recognize customer needs months or even years before the majority of the market may recognize them.[a]	
8. We extrapolate key trends to gain insight into what users in a current market will need in the future.	0.69
α = 0.92; AVE = 69.58%. ρ_{vc} = 0.65	
χ^2/d.f. = 2.23; SRMR = 0.031; TLI = 0.963; CFI = 0.975	
Market pioneering	
Measure based on Covin et al. (2000)	
1. We compete heavily on the basis of being first-to-market with new products.	0.83
2. We typically precede our major competitors in bringing new products to the market.	0.89
3. We offer products that are very similar to those of our major competitors (reverse-scored).[a]	
4. We offer products that are unique and distinctly different from those of our major competitors.	0.64
α = 0.83; AVE = 74.65%; ρ_{vc} = 0.64	
χ^2/d.f.: n.a.; SRMR: n.a.; TLI: n.a.; CFI: n.a.	
Technological turbulence	
Measure based on Jaworski and Kohli (1993)	
1. The technology in our markets is changing rapidly.	0.85
2. Technological changes provide big opportunities in this market.	0.81
3. It is very difficult to forecast where the technology in this market will be in the next five years.	0.57
4. A large number of new products in this market have been made possible through technological breakthroughs.	0.87
5. Technological developments in this market are rather minor.	0.72
α = 0.88; AVE = 67.00%; ρ_{vc} = 0.59	
χ^2/d.f. = 2.13; SRMR = 0.029; TLI = 0.969; CFI = 0.985	
Competitive intensity	
Measure based on Jaworski and Kohli (1993)	
1. Competition in our industry is cutthroat.	0.52
2. There are many “promotion wars” in our industry.	0.80
3. Anything that one competitor can offer, others can match readily.	0.48
4. Price competition is a hallmark of our industry.	0.50
5. One hears of a new/competitive move almost every day.	0.61

α = 0.72; AVE = 47.10%; ρ_{vc} = 0.36	
χ^2/d.f. = 1.62; SRMR = 0.037; TLI = 0.948; CFI = 0.974	
Interfunctional coordination	
Measure based on Narver and Slater (1990)	
1. We conduct interfunctional customer calls.	0.64
2. In our organization, information is shared among functions.	0.88
3. We have functional integration in our strategy.	0.83
4. All functions in our organization contribute to customer value.	0.73
5. In our organization, we share resources with other business units.	0.75
α = 0.87; AVE = 66.76%	
χ^2/d.f. = 1.32; SRMR = 0.010; TLI = 1.000; CFI = 1.000	

n.a.: not available.

[a] These items were dropped during the scale refinement process.

[b] Completely standardized loadings.

[c] All scales are measured using a 10-point scale ranging from “Strongly Disagree” to Strongly Agree.”

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