The bidirectional complementarity between market orientation and launch proficiency affecting new product performance

Abstract

Purpose- Based on the resource-based view and dynamic capabilities theory, this study examines the complementarity between market orientation and launch proficiency as a driver of new product performance.

Design/methodology/approach- In this research, an on-site survey of Iranian, R&D-intensive, manufacturing firms was carried out to examine the proposed hypotheses. Based on the 179 workable survey responses, a covariance-based structural equation modeling was applied to verify the proposed theoretical model.

Findings- The empirical findings reveal that the effects of market orientation or launch proficiency alone are not significant while the complementarity between them significantly influences new product performance. These research outcomes suggest that this complementarity leads to a bidirectional co-specialization relationship in firms, promoting both market intelligence generation processes and product-launch capabilities and therefore resulting in superior new product performance.

Originality/value- The current characterization of the resource-based theory signifies that strategic resources merely have potential value, and actualizing this value needs complementary organizational capabilities. Furthermore, the literature notably lacks empirical findings supporting these complementarities. Therefore, the findings concerning the bidirectional co-specialization between market orientation and launch proficiency not only provide empirical support for the dynamic capabilities theory but also address recent research calls to identify and calibrate the importance of dynamic capabilities for leveraging market orientation on new product performance.

Keywords: Market orientation, Launch proficiency, New product development, New product performance, Dynamic capabilities theory, Resource-based theory, New product management, Innovation management, Quantitative methods, SEM

1. Introduction

Many firms rely on their new product performance as a significant source of competitive advantage; hence, understanding the contributory factors to new product success is essentially worthwhile for managers (Mu et al., 2017; Najafi-Tavani et al., 2018; Najafi-Tavani et al., 2016). One of the strategic-oriented factors considered as an indispensable resource in bringing about new product success is market orientation (Kim et al., 2013; Mu and Di Benedetto, 2011). Market orientation is extensively viewed as a valuable, inimitable, and rare firm-level resource leading to competitive advantage (Hunt and Morgan, 1995; Iyer et al., 2019; Menguc and Auh, 2006; Powers et al., 2020; Rodríguez-Pinto et al., 2011; Tajeddini and Ratten, 2020), and it is predominantly defined as an outside-in process incorporating the generation and dissemination of market intelligence across all organizational functions to provide superior values for customers (Ashrafi and Zare Ravasan, 2018; Heirati and O'Cass, 2016; Morgan et al., 2019). Apparently, organizations need to receive forward-looking intelligence from the market to increase flexibility in their new product development, and market orientation is a likely source of such intelligence (Najafi-Tavani et al., 2016).

Previous studies on marketing have extensively inspected the influence of market orientation on new product performance (Gotteland and Boule, 2006; Morgan and Anokhin, 2019; Rodríguez-Pinto et al., 2011); nevertheless, inconsistent results are evident. For instance, while some studies have revealed a significant positive relationship (Morgan et al., 2019; Mu et al., 2017; Wei et al., 2012), others have shown insignificant or even negative effects (Cui and Xiao, 2019; Liu and Atuahene-Gima, 2018; Wei and Atuahene-Gima, 2009). These inconsistent results could be attributed to different contexts and perspectives. Considering the empirical aspect, this inconsistency can be assigned to distinct research settings. For instance, Najafi-Tavani et al. (2016) assessed the association among market orientation and new product performance and found support for their hypothesis across 188 Swedish manufacturing firms. In contrast, Heirati and O'Cass (2016) were not successful in providing empirical support for this relationship when considering Iranian manufacturing industries involved in a less developed country. Regarding studies' perspectives on market orientation, we further face this inconsistency in the literature. While Wei et al. (2012) follow the market intelligence perspective on market orientation and find that its influence on Chinese firms' new product performance is positive and significant, Zhang and Zhu (2016) adopt the culturally based behavioral perspective and indicate that the influence on Chinese firms' new product performance is insignificant. From a theoretical aspect, these inconsistencies could be ascribed to not conceptualizing the contingencies or mechanisms through which market orientation is deployed. Arguably, the literature indicates that market orientation does not automatically lead to new product performance, and to fully realize its value to the firm's new product development, complementary dynamic capabilities are required (Morgan et al., 2009; Mu et al., 2017; Wilden et al., 2019; Zhou et al., 2005). Accordingly, analyzing the influence of market orientation on new product performance without taking into account complementary dynamic capabilities could be an oversight, as recent empirical studies considering these complementarities have consistently revealed their significant influence on new product performance (Heirati and O'Cass, 2016; Najafi-Tavani et al., 2018). Thus, this study focuses on

the complementarity between market orientation and launch proficiency as a dynamic marketing capability to address this failing and fill these gaps in the literature.

Market orientation alone is not sufficient to determine new product performance outcomes; therefore, a better understanding of the contingencies and of how this knowledge-based asset is deployed to achieve competitive advantage is an important research agenda (Kumar et al., 2011; Mu et al., 2017; Wilden et al., 2019). For instance, research has indicated that marketing capabilities, absorptive capacity, exploratory marketing, exploitative marketing, or networking capability can be considered as complementary deployment mechanisms for leveraging market orientation on new product performance (Heirati and O'Cass, 2016; Morgan et al., 2009; Mu et al., 2017; Najafi-Tavani et al., 2016). In new product development research, the capability to launch new products proficiently has long been recognized as a mechanism for creating better new product performance outcomes (Calantone et al., 2018; Hsieh et al., 2008; Langerak et al., 2004). However, extant studies have not sufficiently linked the two streams of literature, i.e., the complementarity between market orientation and launch proficiency and its influence on new product performance.

Grounded on the resource-based view and dynamic capabilities theory, we empirically investigate the complementarity between market orientation as a knowledge-based asset and launch proficiency as a marketing capability. Launch proficiency pertains to the marketing capabilities of the firm to test the market, budget for the launch, and determine the launch strategy and tactics (Calantone et al., 2018). Dynamic capabilities theory posits that possessing valuable resources alone is not enough to derive competitive advantage, and utilizing complementary dynamic capabilities is essential to realize the full potential of the resources (Najafi-Tavani et al., 2016; Wilden et al., 2019). Furthermore, marketing capabilities, such as launch proficiency, can notably affect the implementation of marketing strategies and help firms utilize their limited resources productively (Morgan et al., 2012; Schweiger et al., 2019). Accordingly, this research concentrates on furthering the knowledge about how employing launch proficiency as a complementary deployment mechanism for market orientation can lead to better new product performance outcomes, and it provides empirical evidence supporting the dynamic capabilities theory.

The current study results in two important contributions. First, it identifies and empirically examines a particular organizational capability that empowers firms to effectively utilize the market intelligence they generate and disseminate. The findings clarify the process by which market orientation relates to new product performance and indicate that to fully actualize the potential value of this knowledge-based asset to the firm, possessing complementary market-related capabilities is essential. Second, this research determines how market orientation and launch proficiency are effective sources of competitive advantage. Arguably, the research contributes to new empirical evidence for dynamic capabilities theory, proposing that to maintain the advantageous value of knowledge-based resources in rapidly changing market environments, utilizing complementary market-related deployment capabilities is indispensable (Morgan et al., 2009; Schweiger et al., 2019; Wilden et al., 2016; Wilden et al., 2019).

2. Theoretical framework and hypothesis development

High-velocity market environments have resulted in unprecedented competition for new product development; thus, value-adding strategies are of utmost importance for firms' success (Najafi-Tavani et al., 2016). Based on the resource-based theory, sustained competitive advantage derives from heterogeneous and immobile resources, such as assets, organizational processes, and intelligence, which are simultaneously inimitable, rare, non-substitutable, and valuable (Barney, 1991; Barreto, 2010; Schweiger et al., 2019). These resources allow managers to prosecute value-adding strategies and are fundamental to explaining performance outcomes (Morgan et al., 2009; Wilden et al., 2016). Nevertheless, the resource-based theory is considered static in its nature (Barreto, 2010). That is, the processes through which these resources are deployed to gain sustained competitive advantage and the capabilities that are complementary for deriving practical benefits remain a black box and need further empirical investigation (Wilden et al., 2016; Wilden et al., 2019). Scholarship in dynamic capability research has shifted from preliminary conceptual work (Eisenhardt and Martin, 2000; Teece et al., 1997; Winter, 2003) to structured empirical modeling and testing (Protogerou et al., 2011; Wilden and Gudergan, 2015). Moreover, empirical scholarship grounded in the dynamic capability view is still in its infancy and needs further progress (Barreto, 2010; Giudici and Reinmoeller, 2012; Wilden et al., 2016; Wilden et al., 2019). Appendix 2 illustrates the recent research on market-orientation, launch proficiency, and new product performance. Thus, this empirical research analyzing the complementarity between market orientation and launch proficiency significantly adds to the further progress of the resource-based theory and its dynamic capabilities extensions.

Dynamic capabilities theory postulates that in hypercompetitive environments, firms' resources are reconfigured through dynamic capabilities to match the market conditions and to achieve sustained competitive advantage (Barreto, 2010; Eisenhardt et al., 2010). Dynamic capabilities are organizational processes employed to synthesize and reconfigure knowledge resources, like market orientation, and are used to produce advantageous implementation of them (Barreto, 2010; Eisenhardt and Martin, 2000). While resources mainly include tangible and intangible assets and competencies, such as market intelligence generation, dissemination, and responsiveness (Ashrafi and Zare Ravasan, 2018; Hunt and Morgan, 1995; Iyer et al., 2019; Menguc and Auh, 2006; Powers et al., 2020; Rodríguez-Pinto et al., 2011; Tajeddini and Ratten, 2020), dynamic capabilities represent organizations' abilities to reconfigure and integrate these resources and competencies to address rapid environmental changes (Hernández-Linares et al., 2020; Morgan et al., 2009; Teece et al., 1997; Wilden et al., 2016; Wilden et al., 2019). These capabilities encompass elaborate and integrated patterns of skill and knowledge gradually turning into organizational routines, such as launch proficiency routines, which are notably significant for new product success (Eisenhardt and Martin, 2000; Hoskins and Griffin, 2019; Morgan et al., 2009). Moreover, the manipulation and integration of knowledge resources is essential in hypercompetitive or high-velocity environments (Barreto, 2010; Eisenhardt et al., 2010). Therefore, the literature reveals that besides the likely benefits of possessing valuable and unique resources, firms need to possess complementary capabilities to deploy them under the dynamics of the market (Najafi-Tavani et al., 2016; Wilden et al., 2019) and consequently derive superior new product performance (Heirati and O'Cass, 2016; Mu et al., 2017; Najafi-Tavani et al., 2018).

4

Based on this theoretical perspective, we further provide details on the research concepts and develop hypotheses.

2.1 Market orientation and new product performance

The literature posits that market orientation is a knowledge-based asset bringing about higher levels of new product performance (Hunt and Morgan, 1995; Menguc and Auh, 2006; Morgan et al., 2019). In line with the comparative advantage theory of competition (Hunt and Morgan, 1995), firms' resources leading to competitive advantage are not merely tangible assets, and they also refer to firms' core competencies and complex processes like market orientation. Companies actualizing market orientation tend to offer superior values for clients through a process that comprises realizing their needs, market trends, and opportunities; winning the valuable opportunities; and responding to them by developing appropriate products and services (Ashrafi and Zare Ravasan, 2018; Kohli et al., 1993; Najafi-Tavani et al., 2016; Narver et al., 1998). Market orientation is an actualization of the marketing concept, focusing specifically on the organization-wide dissemination, responsiveness, and generation of market intelligence (Kohli and Jaworski, 1990; Lafferty and Hult, 2001). Based on the market intelligence perspective, market orientation pertains to the application of formal and informal mechanisms across all organizational departments to generate market intelligence (market intelligence generation), the dissemination and communication of this intelligence across and within all departments to present a basis for coordinated actions (market intelligence dissemination), and responsiveness to this intelligence, which can include launching a product that fulfills current and anticipated needs (responsiveness to market intelligence) (Ashrafi and Zare Ravasan, 2018). These processes result in market intelligence being knowledge about a firm's customers, competitors, and market factors, and they enable the firm to produce and launch more effective or efficient market offerings for targeted market segments; thus, based on the comparative advantage theory of competition, market orientation is a knowledge-based resource leading to the firm's competitive advantage (Hunt and Morgan, 1995; Iyer et al., 2019; Menguc and Auh, 2006; Morgan et al., 2009; Powers et al., 2020; Rodríguez-Pinto et al., 2011; Tajeddini and Ratten, 2020). This study has followed the market intelligence perspective since, compared to others (e.g., the customer perspective, the culturally based behavioral perspective, the decision-making perspective, and the strategic perspective) (Lafferty and Hult, 2001), it provides a broader concept that covers exogenous market factors affecting customer preferences, and it considers both expressed and latent customers' needs (Ashrafi and Zare Ravasan, 2018).

New product development is inherently an innovative match between a solution and a need, and it is implemented to successfully create values for customers (Kavadias and Ulrich, 2020). New product performance encompasses both the financial and non-financial outcomes of a company's attempts at new product development (Najafi Tavani et al., 2013). Two groups of factors are mainly considered the indicators of new product performance, namely, innovation efficacy (the product's profitability, market share, and quality) and innovation efficiency (the speed, flexibility, productivity) (Najafi Tavani et al., 2013). Previous studies have commended market orientation as an organizational resource that influences performance outcomes, including new product performance (Morgan et al., 2019; Mu et al., 2017; Powers et al., 2020). Market

orientation is grounded in perceiving customers' needs and offering products as valuable solutions in their totality, thus enabling firms to benefit from new product success (Ashrafi and Zare Ravasan, 2018; Morgan et al., 2019; Mu et al., 2017). Moreover, this knowledge-based asset narrows the risk of new product development efforts and adds to the success rate of new products through organization-wide responsiveness to the generated market intelligence (Aloulou, 2019; Kakapour et al., 2016). Given the considerable number of empirical studies (Atuahene-Gima, 1995; Gotteland and Boule, 2006; Morgan et al., 2019; Najafi-Tavani et al., 2016; Wang et al., 2020) indicating a direct association among market orientation and new product performance, previous work has found that there is a substantial influence of market orientation on new product performance. So, we empirically analyze whether that influence is positive, and we propose our first hypothesis as follows:

H1: The market orientation positively influences the firm's new product performance.

2.2 Launch proficiency and new product performance

Despite the noticeable growth in new product development academic research, the critical concept of new product launch, particularly the proficiency of launch activities, has attracted scant empirical attention (Calantone et al., 2018). It is surprising, however, that the product launch is among the most vital steps in the new product development process, and it is associated with high costs and risks (Calantone et al., 2012, 2018). Launch proficiency as a marketing capability incorporates the necessary activities of presenting a new product to a target market and generating profits (Hsieh et al., 2008). This marketing capability includes proficiency in market testing, launch budgeting, launch strategy, and launch tactics (Hsieh et al., 2008; Langerak et al., 2004). Proficiency in market testing involves examining the physical product and launch tactics in the marketplace (Langerak et al., 2004). Testing a new product and its related launch tactics prior to the final stage of commercialization, that is, mass production and sales to the market, leads a firm to gather more practical information concerning the features of the new product (Valtakoski et al., 2019). Moreover, this examination ensures that the firm's new products satisfactorily meet the market's needs (Kou et al., 2018). Therefore, proficiency in market testing enhances the firm's competencies in introducing the new product to the market, such as standardization of and communication about the product, and elevates the firm's new product performance outcomes (de Brentani, 1995; Storey et al., 2016; Valtakoski et al., 2019).

Proficiency in launch budgeting requires the activity of budgeting for creating, implementing, and monitoring the launch tactics and strategy (Langerak et al., 2004). This capability helps firms to develop new products in a cost-efficient manner and to rationalize the pertinent processes (Engelen and Brettel, 2012; Homburg et al., 2017). Moreover, proficiency in launch budgeting and resource allocation, as an interdepartmental process, requires higher levels of cooperation and teamwork, thus leading to successful new product development (Homburg et al., 2017). Launch strategy calls for a response to the where, why, what, and when to launch questions, and it includes activities, such as segmenting, targeting, or positioning the product in the market (Langerak et al., 2004). Execution of appropriate launch strategies results in critical advantages including enhancement of lead times; reduction of inventory, risk, and costs; and on-time delivery to the

market (Calantone et al., 2012; Kou and Lee, 2015). Thus, successful implementation of the strategies greatly improves new product success in terms of cost reduction, market share, and premium prices (Calantone et al., 2012; Guo et al., 2018; Kou et al., 2018). Launch tactics incorporate marketing mix decisions (product, place, pricing, and promotion tactics) as to how the firm should launch the new product (Langerak et al., 2004). Accordingly, effective advertising and demonstration of the product stimulates trial and reduces customers' uncertainty (Guiltinan, 1999; Romaniuk and Hartnett, 2017; Yang et al., 2020). Similarly, appropriate branding establishes brand associations, and right pricing encourages purchases by customers with perceptions of high quality or early adopters, thus resulting in new product success (Guiltinan, 1999; Guo et al., 2018; Ingenbleek et al., 2010; Yang et al., 2019).

Launch proficiency has been conceptualized as a dynamic marketing capability resulting in new product success (Hsieh et al., 2008; Langerak et al., 2004). Through benefiting from dynamic marketing capabilities - processes that concern the reconfiguration of resources - firms are capable of identifying and capitalizing on market opportunities and so achieving new product success (Saul and Gebauer, 2018; Wilden et al., 2019). Dynamic capabilities are essential for firms to achieve fit with their market environment, particularly when facing market turbulence, and to obtain better performance (Wilden et al., 2016; Wilden et al., 2019). More specifically, marketing capabilities significantly affect the efficacious implementation of marketing strategies (Morgan et al., 2012; Najafi-Tavani et al., 2016) and, thus, firms' new product performance (Ju et al., 2018; Najafi-Tavani et al., 2016). Prior studies have consistently revealed that proficiency in launch activities is a significant determinant of the success of a new product. In an empirical analysis, Cooper (1979) indicated that proficiency at market launch contributes to the new product's success, and Maidique and Zirger (1984) concluded that conducting marketing activities proficiently leads to better performance of the innovation. Similarly, Cooper and Kleinschmidt (1987) stated that proficiency in new product launch activities is a significant predictor of new product success. Similarly, later studies in the context of Australian, Japanese, and Chinese firms indicated that proficiency in the new product development process, including launch proficiency, significantly influences firms' new product performance (Atuahene-Gima, 1995; Dwyer and Mellor, 1991; Song and Parry, 1994, 1997). More recently, Langerak et al. (2004) and Calantone et al. (2012) have empirically proved that launch proficiency, particularly in its totality, significantly influences firms' new product performance. Therefore, previous work has found that launch proficiency has a significant influence on new product performance, and we empirically analyze whether that influence is positive. Accordingly, our second hypothesis is as follows:

H2: The launch proficiency positively influences firms' new product performance.

2.3 Interaction of market orientation and launch proficiency

The resource-based view and dynamic capabilities theory have revealed complementarity between firms' knowledge resources and deployment capabilities (Feng et al., 2017; Morgan et al., 2009; Wilden et al., 2019). This implies that firms' market orientation and launch proficiency complement each other in a way that empowers them to line up their resource deployments with market dynamics very effectively (Eisenhardt et al., 2010). Capabilities that integrate outside-in

market intelligence with inside-out new product development processes are considered to be spanning capabilities (Day, 1994; Lamore et al., 2013). In particular, the market intelligence and the subsequent learning form the background of new product development efforts (Lamore et al., 2013; Sherman et al., 2005). More specifically, pertinent studies have revealed that market intelligence is essential for thriving discrete marketing capabilities; for instance, the market intelligence obtained from market-intelligence generation and dissemination processes enhances the budgeting and resource allocation practices concerning new product development, and it helps the firm set and implement the appropriate launch strategy and tactics proficiently (Homburg et al., 2017; Morgan et al., 2009). In a similar vein, proficiency in market testing empowers the company to reach a deeper knowledgeability about the developed product's attributes and ensure it fulfills the market's needs; thus, this individual capability elevates the firm's pertinent market intelligence and responsiveness (Lamore et al., 2013; Morgan et al., 2009; Morgan et al., 2003).

Deployment capabilities, such as launch proficiency, provide economies of scope for utilizing firms' knowledge resources and offer market-related mechanisms to deploy the market intelligence and generate economic rents (Danneels, 2007). As market orientation and launch proficiency complement each other in a way that leads to economic rent generation and competitive advantage, this complementarity has the attributes of asset interconnectedness and prevents rivals from imitating the firm's source of competitive advantage through creating a complicated causal ambiguity (Barreto, 2010; Feng et al., 2017). Previous empirical studies have indicated that this complementarity between market orientation and market-related dynamic capabilities positively influences firms' performance and new product performance outcomes (e.g., Dogbe et al., 2020; Dogbe et al., 2019; Wahyono and Hutahayan, 2020). Morgan et al. (2009) argue that market orientation complements the firms' marketing capabilities, and they jointly result in competitive advantage, specifically superior firm performance. Heirati and O'Cass (2016) point out that market orientation interacts with the capability of the firms to form business ties, and they mutually augment firms' new product performance. Najafi-Tavani et al. (2016) demonstrate that in the presence of knowledge absorptive capacity, the complementarity between market orientation and marketing capabilities results in advantageous new product performance. Moreover, Mu et al. (2017) reveal that market orientation and firms' networking capability complement each other in a way that influences new product performance positively. Thus, we propose our third hypothesis as follows, and the hypothesized relationships are represented in Figure 1.

H3: The interaction between the market orientation and launch proficiency positively influences firms' new product performance.

'Figure 1 about here'

3. Research methodology

3.1 Sample and data collection

We utilized a questionnaire-based survey to conduct this empirical research in the context of the Iranian manufacturing industry. One of the historical characteristics of the Middle Eastern manufacturing industry is stagnant performance; however, this region has recently witnessed a noticeable growth in manufacturing and economic performance partly due to relatively low oil prices (Najafi-Tavani et al., 2018). Iran's economy is expected to grow; however, the manufacturing sector is currently suffering from sluggish performance, and due to the entrance of international firms into the market, competition has become increasingly fierce, comparable with many Middle Eastern countries like Oman and the United Arab Emirates (Zaefarian et al., 2017). Besides, Iran shares many similarities with other Middle Eastern countries regarding the culture and stage of development (Najafi-Tavani et al., 2018), and as such, the study's population is representative of other countries in this region. Moreover, as a result of the COVID-19 pandemic, not only Iranian and Middle Eastern firms but also many other Asian, African, European, and American firms are afflicted by sluggish performance and intense competition for survival. Consequently, an ailing economy incorporating several manufacturing firms suffering from stagnant performance is likely to characterize the post-COVID-19 future of many formerly thriving countries and regions (Hughes et al., 2020). Therefore, the study's setting is ideal for examining the impacts of companies' resources and capabilities, and the complementarities between them on firms' new product performance, and the results could be generalizable to a broad context. Accordingly, industries, particularly Middle Eastern industries, need to sense and seize new product development opportunities. Thus, possessing knowledge-based assets and market-related dynamic capabilities, like market orientation and launch proficiency, can assist the manufacturing firms to better implement new product development processes and benefit from advantageous new product success.

According to a considerable review of the relevant research on market orientation, launch proficiency, and new product performance, we first drew up the English format of the questionnaire. Then, we had the questionnaire translated into Persian and back-translated into English by professional independent translators. The conceptual equivalence, face validity, and content validity of the measures were examined via 15 academic peers and manufacturing managers, and we received their confirmation.

To follow the directions of Wright et al. (2005) regarding doing research in emerging economies, personal interviews were undertaken in order to administer the survey. During the sampling process, we randomly selected companies from the Iranian Commerce and Ministry of Industry website (behinyab.ir, 2019). Then, we further inspected whether these firms were still in operation, and it turned out that 955 firms qualified as our potential respondents. Top managers of these companies, such as vice presidents, marketing managers, or new product innovation and development managers, were contacted by telephone to see whether they were disposed to take part in this study and if they had introduced a new product to the market within the last three years. Overall, 179 firms confirmed their willingness and were considered appropriate for our analysis.

9

Personal on-site appointments with the key informants were made in order to conduct the survey (response rate of 100% of the qualified firms). Moreover, it is worth mentioning that several prior studies in the literature have successfully employed Iranian data for general findings (e.g., Asghari et al., 2020; Heirati and O'Cass, 2016; Heirati et al., 2017; Keramati et al., 2010; O'Cass and Heirati, 2015; Sangari and Razmi, 2015). Ashrafi and Zare Ravasan (2018) revealed a notable level of validity and reliability of the gathered data in their study of the influence of market orientation on innovation performance. A similar study investigated the superior new product performance resulting from product innovation capability in the context of Iranian manufacturing firms (Najafi-Tavani et al., 2018). Zaefarian et al. (2017) have also indicated that data pertaining to the Iranian manufacturing industries are appropriate for examining the influencing factors of product innovation success and for generalizing the related theories. Accordingly, no specific concern might hamper the generalizability of the research findings.

In surveys, non-response bias is a typical concern; therefore, following Armstrong and Overton's (1977) recommendation, we compared early and late participants by conducting an analysis of variance (ANOVA) and by testing the homogeneity of variance among them. The analysis indicated that no significant differences existed between early and late respondents in terms of key firm characteristics, such as the firm age, firm size, and number of new products introduced into the market within the last three years. Consequently, non-response bias is not a concern in this study. The 179 responding manufacturers represent a good range of research and development (R&D) intensity based on the industry classification of OECD (Galindo-Rueda and Verger, 2016): high intensity= 6.1%; medium-high intensity= 46.4%; medium intensity= 41.4%; medium-low intensity= 6.1%. They belong to various manufacturing sectors, such as food, plastic, metal, automotive parts, engineering manufacturing, or medical. These firms have been running their business for 3 to 71 years and their total number of employees ranges from 10 to 511.

3.2 Common method bias

In single-informant surveys, common method variance (CMV) is a potential biasing threat that needs to be considered (Iyer et al., 2020; Rodríguez-Pinto et al., 2011). Following the procedures recommended by Podsakoff et al. (2012), we took both statistical and procedural measures to address this concern. In the first phase, we followed three procedural steps. First, through a systematic questionnaire development process, we reviewed the pertinent literature and adopted the measurement items from well-anchored scales resulting in the acceptable coherence of the measurement items. Additionally, as mentioned earlier, we had a consultation process with academic peers and managers to further refine the questionnaire and augment its clarity and comprehensibility. Second, in order to limit the respondents' speculation about the relationships between the study's constructs, we randomly positioned the items avoiding their predetermined order. Thirdly, we protected the respondents' anonymity both in the questionnaire and individual interviews to ensure the correctness of answers.

After carrying out the survey, we also applied some statistical remedies. First, we applied Harman's single factor test to examine the amount of total variance explained by a single factor. Results of the exploratory factor analysis (EFA) indicated that the single factor merely accounted

for 37% of the total variance; thus, common method variance is not a serious concern in this research, and the explained variance does not pass the threshold of 50%. Secondly, a confirmatory factor-analytic approach was employed (Rodríguez-Pinto et al., 2011). Then, we compared the fit indices of the research measurement model with a single-factor measurement model's fit indices. Results of the confirmatory factor analysis (CFA) revealed a worse fit for the single-factor model (χ^2= 1331.76; df= 400; CFI= .66; IFI= .67; RMSEA= .11) in comparison with the original measurement model (χ^2= 657.05; df= 379; CFI= .90; IFI= .90; RMSEA= .06). Consequently, the results of the conducted tests indicated that CMV was not the main concern.

3.3 Measurements

The research's constructs were measured by adopting measurement scales from previous studies and utilizing standard Likert-type seven-point scales. The full description of measurement scales and items used is given in Appendix 1. We adopted a five-item scale from the study of Najafi Tavani et al. (2013) for measuring new product performance. This scale reflects new product success regarding customer acceptance, market-level outcomes, and financial outcomes. Market orientation is a second-order variable including three sub-dimensions, namely, intelligence generation, dissemination, and responsiveness. We employed the relevant measurement scales and items provided by Morgan et al. (2009) and Wei and Atuahene-Gima (2009). This construct primarily focuses on the firm's behavior related to the acquisition of market intelligence, the dissemination of it throughout all functional areas, and effective responsiveness.

Concerning launch proficiency, the literature indicates that the decisions regarding launch strategy and launch tactics can be combined into a more complete launch strategy that is a generic launch strategy (Hultink et al., 1998). Hultink et al. (1998) revealed that launch strategy and launch tactics were highly correlated and interdependent, and managers used them in combination as generic launch strategies to influence the success of their new products. Consequently, to measure launch proficiency, we adapted the measurement scales provided by Langerak et al. (2004) and utilized a second-order construct including three sub-dimensions, specifically, market testing, launch budgeting, and generic launch strategy. Market testing pertains to activities for testing the physical product and the related launch strategy and tactics (Langerak et al., 2004). Launch budgeting reflects the budgeting tasks required for the development, implementation, and control of the launch strategy and tactics (Langerak et al., 2004). A generic launch strategy reflects strategic and tactical launch decisions in combination, such as segmenting, targeting, positioning, product tactics, distribution, and promotion (Hultink et al., 1998; Langerak et al., 2004). Regarding control variables, we took firm size and firm age into consideration (Dogbe et al., 2019; Heirati and O'Cass, 2016; Mu et al., 2017).

3.4 Analysis

Before testing the research hypotheses, a CFA was employed to ensure the purification and robustness of the measurement model. The CFA was conducted through AMOS 23.0. Second, to examine the proposed research hypotheses, the study utilized covariance-based structural equation modeling (CB-SEM). This approach is highly appropriate for representing theoretical concepts

since it incorporates multiple measures of the concepts to reduce their measurement error and produces a more robust estimation of the relationships between the concepts (Hair et al., 2014a; Hunt, 2002; Pearl, 1998). Furthermore, when the research endeavors to test or confirm a theory, CB-SEM is prioritized over its alternatives (Hair et al., 2014b). Therefore, the analysis incorporates two structural models using maximum likelihood estimation in AMOS 23.0. First, a baseline model was estimated to test the main effects whereas in the second step, an interaction model was estimated to test the interaction effect.

4. Results and discussion

4.1 Measurement models

Confirmatory factor analysis (CFA) was performed to ensure the validity, reliability, and robustness of the measurement model. The fit indices indicated satisfactory model fit, with $\chi^2=$ 657.05; df= 379; CFI= .90; IFI= .90, and RMSEA= .06. According to Table 1, all standardized factor loadings are above .6 and significant at the .01 level; moreover, the AVE for each construct exceeds the minimum threshold of .5 indicating convergent validity (Hair et al., 2014a). Considering CRs and Cronbach's alphas, all the values are above the minimum threshold of .7 representing the internal consistency of the research's constructs (Hair et al., 2014a).

'**Table 1 about here**'

Furthermore, to ensure that discriminant validity exists among our research's constructs, we compared the square roots of AVEs with the inter-construct correlation estimates. As we can observe in Table 2, the square roots of AVEs are greater than the pertinent variables' correlations; thus, discriminant validity among the constructs is evident (Fornell and Larcker, 1981). Overall, our model therefore exhibits sufficiently good measurement properties.

'**Table 2 about here**'

As stated before, in the structural models, market orientation and launch proficiency are higher-order constructs consisting of three first-order sub-dimensions. The former is composed of market-intelligence generation, dissemination, and responsiveness to market intelligence while the latter is made up of proficiency in launch budgeting, market assessment, and generic launch strategy. Table 3 shows the standardized factor loadings, AVEs, and fit indices of these second-order constructs. Concerning the market orientation, the standardized factor loadings of the second-order construct vary from .65 to .87, and they are all significant at the .01 level. Besides the acceptable level of the average variance extracted (AVE= .59), the fit indices (Normed $\chi^2=$ 1.88; IFI= .95; CFI= .95; RMSEA= .07) indicate that the model fits well with the data. Similarly,

regarding the launch proficiency, the loadings range between .77 and .92, and they are all significant at the .01 level. In addition to the AVE (.74), the fit indices (Normed χ^2= 2.67; IFI= .91; CFI= .91; RMSEA= .08) indicate support for the model fit. Therefore, second-order factor models were used to signify market orientation and launch proficiency constructs.

'Table 3 about here'

4.2 Structural models

Following the procedures suggested by Ping (1995), we examined the research hypotheses using covariance-based structural equation modeling (CB-SEM). In order to test Hypotheses 1 and 2, this study assessed a key effect model with direct paths from the second-order market orientation (MO) and launch proficiency (LP) to the first-order new product performance (NPP) factor (first model). To examine Hypothesis 3, we assessed the interaction of market orientation and launch proficiency on new product performance (second model). Market orientation and launch proficiency were first mean-centered to avoid problems of multi-collinearity, and a single-item indicator demonstrating the calculation of the two constructs' measurement was applied (Ping, 1995). Firms' age and size were considered as control variables in both models, and to avoid the problem of skewness, natural logarithm values were specified to the control variables as alternatives to the original values. Table 4 presents the results of the structural equation modeling analyses.

'Table 4 about here'

Given the structural models' statistics and a threshold-level of model fit as an RMSEA of .08, the sample size is large enough to deliver adequate statistical power and have assurance in the research's results. Table 4 also reports the models' fit indices suggesting that both the interaction and main effect models fit the data adequately well. As we can observe from the standardized path coefficients (SPCs) for relationships in the research model, market orientation alone has no significant direct impacts on new product performance either in the baseline model (SPC= .92; p> .05; t-value= .84) or in the interaction model (SPC= .72; p> .05; t-value= .99). Thus, the results do not provide support for Hypothesis 1.

This result does not accord with the researchers' anticipation and previous findings (Wang et al., 2020; Wei et al., 2012). An explanation might be that this research, counter to such prior studies, was conducted in the context of an ailing economy suffering from stagnant performance and considered the role of a complementary deployment mechanism for actualizing the potential benefits of market orientation as a knowledge-based asset. Arguably, without such considerations and controls, the impact of market orientation on new product performance is likely to be

overestimated (Baker and Sinkula, 1999a; Langerak et al., 2004). Furthermore, the success in new product performance outcomes does not depend merely on market intelligence generation, dissemination, and responsiveness; it also depends on the capabilities of the firm to integrate this market intelligence into organizational routines and processes, such as new product development processes (Baker and Sinkula, 1999b; Cui and Xiao, 2019; Grant, 1996). A single-minded focus on competitors, customers, and the market environment without integrating the subsequent market intelligence into organizational processes actually limits the firm to existing routines and decision-making frameworks (Baker and Sinkula, 1999b; Grant, 1996; Heirati and O'Cass, 2016).

Notably, this finding is in line with prior empirical studies indicating that market orientation is not the main basis upon which companies can significantly improve their new product success (Heirati and O'Cass, 2016; Langerak et al., 2004; Liu and Atuahene-Gima, 2018; Wei and Atuahene-Gima, 2009). In fact, this knowledge-based asset needs to be employed in conjunction with other marketing capabilities to influence new product performance positively, particularly in the context of a stagnant economy (Heirati and O'Cass, 2016; Mu et al., 2017; Najafi-Tavani et al., 2016). Furthermore, this finding echoes previous studies in the literature stating that market intelligence generation activities are decidedly costly and do not usually lead to superior new products since the products' benefits vary and depend on certain conditions (Cui and Xiao, 2019). Arguably, being overly customer-driven and getting involved with market intelligence generation at extremely high levels can lower the success and advantage of a new product (Christensen and Bower, 1996; Cui and Xiao, 2019). In contrast, when these market intelligence generation activities are complemented with product development intelligence and capabilities, they jointly contribute to the new product advantage in a synergistic manner (Cui and Xiao, 2019). Therefore, this finding indicates that the influence of market orientation on new product performance depends on other complementary deployment mechanisms, implying that a market-intelligence-processing system requires other complementary market-related capabilities to create competitive advantage.

Concerning the relationship between launch proficiency and new product performance, as presented in Table 4, the exogenous factor alone has no significant direct impacts on the endogenous one either in the main effect model (SPC= -.40; p> .05; t-value= -.37) or in the interaction effect model (SPC= -.10; p> .05; t-value= -1.44); thus, Hypothesis 2 is not supported. Practically, this finding echoes previous studies indicating that launch proficiency is not the sole basis by which firms can achieve superior new products (Hsieh et al., 2008; Langerak et al., 2004). Arguably, in order to benefit from effective marketing capabilities resulting in sustained competitive advantage like new product performance, outside-in market intelligence needs to be integrated into the related processes and competencies (Baker and Sinkula, 1999b; Grant, 1996; Mu et al., 2017). If pertinent knowledge and subsequent learning do not complement new product development processes, the firm will be fixated on the existing limited routines and frameworks and lose the opportunity for new product development success, particularly in high-velocity markets (Najafi-Tavani et al., 2018; Najafi-Tavani et al., 2016). Investigating the relationships between proficiency in launch activities and new product performance, Langerak et al. (2004) revealed that proficiency in market testing, launch budgeting, and launch strategy does not exert any significant influence on new product success. In a like manner, Hsieh et al. (2008) reported that the proficiency in these launch activities does not exercise a significant moderating effect on

the relationship between product advantage and new product performance. Therefore, this result indicates that launch proficiency as a marketing capability needs to be complemented with other resources and knowledge-based assets to result in advantageous new product performance outcomes.

Regarding the complementarity between market orientation and launch proficiency, as presented in Table 4, the interaction of these two variables exerts a significant and positive influence on new product performance (SPC= .24; p< .01; t-value= 2.70), providing support for Hypothesis 3. Moreover, to sharpen our understanding of the interaction effect and facilitate our interpretation of the results, we plotted the interaction in Figure 2. As shown in this figure, the positive influence of market orientation on new product performance is stronger with high levels of proficiency in launch activities than with low levels. Accordingly, this finding exactly echoes prior empirical studies in the literature indicating that to realize the full potential of market orientation and achieve new product success, this knowledge-based resource needs to be complemented with other market-related dynamic capabilities (Heirati and O'Cass, 2016; Morgan et al., 2009; Mu et al., 2017; Najafi-Tavani et al., 2016). In fact, this significant interaction term supports propositions of the resource-based view and dynamic capabilities theory about the influence on performance of asset complementarity and economies of scope resulting from reciprocal associations among capabilities and resources (Feng et al., 2017). It specifies that companies' market-based knowledge asset (market orientation) and their market-related dynamic capability (launch proficiency) accompany one another in significant ways that contribute to explaining new product performance. It is logical to expect such a bidirectional co-specialization relationship since the literature has empirically revealed market intelligence is required to build individual marketing capabilities, such as proficiency in launch activities, which generate market intelligence enhancing firms' market orientation (Morgan et al., 2009; Mu et al., 2017). From this perspective, the results show that the complementary launch proficiency capabilities assist companies to obtain market orientation and to unleash their value-adding potential.

'Figure 2 about here'

Finally, concerning the control variables, the findings reveal that firm size is positively interrelated to new product performance (SPC= .17; P< .05; t-value= 1.99) whereas the impact of firm age is not significant either in the key effect model or in the association effect model. Generally, the baseline model explained 33% of the variance in the endogenous construct while the interaction model explained 38% of the variance. The relatively high R^2 values observed show the significance of the baseline and interaction models in explaining new product performance. In other words, by including the interaction term in the main effect model, the examination indicated an important increase in the total variance clarified, showing the presence of an interaction effect.

5. Conclusions

This research contributes to the marketing literature in two significant ways, specifically, by clarifying whether and under what conditions market orientation enhances new product performance in manufacturing industries. The examination reveals that market-intelligence generation activities do not guarantee an increase in firms' new product performance outcomes. Indeed, market orientation enhances new product performance in the existence of launch proficiency, and the extent to which market orientation facilitates new product performance depends on the level of proficiency in launch activities. That is, the effect of market orientation on new product performance increases significantly as the level of launch proficiency increases. The research's findings present several significant theoretical and managerial implications for practitioners and researchers.

5.1 Theoretical implications

This study contributes to the extant literature by explaining the interrelationship among market orientation and companies' new product performance. Previous studies have made opposing predictions concerning the outcomes of market-intelligence generation activities, with either significant (Morgan and Anokhin, 2019; Najafi-Tavani et al., 2016; Rodríguez-Pinto et al., 2011) or insignificant (Heirati and O'Cass, 2016; Langerak et al., 2004; Liu and Atuahene-Gima, 2018; Wei and Atuahene-Gima, 2009) impacts on new product performance. Miscalculating the effects of deployment mechanisms might account for such inconsistent results. Differently from prior research (Liu and Atuahene-Gima, 2018; Morgan et al., 2019), our study examines the role of market orientation as the principal predictor of new product performance and propounds proficiency in launch activities as a necessary internal dynamic capability enabling firms to fully deploy and gain from this knowledge-based asset.

As highlighted by previous studies (Barreto, 2010; Schweiger et al., 2019; Wilden et al., 2016; Wilden et al., 2019), the current characterization of the resource-based view clarifies that strategic resources merely have possible values, and actualizing this potential requires complementary organizational elements. Furthermore, the literature lacks empirical research examining the complementarity between organizational resources and capabilities and supporting the dynamic capabilities theory (Feng et al., 2017; Giudici and Reinmoeller, 2012; Wilden et al., 2019). Thus, this study contributes to the literature in the field of marketing by revealing that the resource-based theory is not adequate to explain the variance in businesses' new product performance. In fact, the influence of market orientation as a knowledge-based asset on new product performance becomes significant in the presence of launch proficiency as an internal dynamic capability. This result empirically supports the dynamic capabilities theory by showing that benefiting from launch proficiency not only helps the firm to enhance its pertinent market intelligence, but also plays a critical role in gaining competitive advantage from assimilating, utilizing, and reconfiguring this knowledge-based resource (Eisenhardt et al., 2010; Feng et al., 2017; Wilden et al., 2019).

Moreover, this study also links two related streams of research by employing the resource-based theory and its recent extension, the dynamic capabilities theory (Eisenhardt et al., 2010). The study empirically examines how proficiency in launch activities as a resource orchestrating

capability facilitates the impacts of market orientation on new product performance outcomes, thereby answering recent research calls (Mu et al., 2017; Najafi-Tavani et al., 2016) to identify and calibrate the importance of dynamic capabilities for leveraging market orientation on new product performance outcomes, particularly in the context of different countries. Accordingly, the results reveal that to effectively utilize available knowledge-based resources, particularly in the context of an ailing economy that portrays not only the Middle East but also the post-COVID-19 future of many formerly flourishing countries and regions, a firm needs to be proficient in launching its new products since with high levels of launch proficiency, a business is in a more appropriate condition to orchestrate the market intelligence and deploy it under the market environment. However, low levels of launch proficiency limit the company's capacity to efficiently leverage the attained intelligence that, in turn, leads to insignificant degrees of new product performance.

5.2 Managerial implications

This research has resulted in very important implications for managers of manufacturing industries that have various levels of R&D intensity. One of the most critical implications is that some firms involved in acquiring market intelligence fail to leverage this resource and to reach their full potential for successful innovation and commercialization. Business practitioners need to be aware that they might be focusing on activities that are highly costly and time-consuming and whose benefits might depend on specific circumstances (Cui and Xiao, 2019). Therefore, besides the generation, responsiveness, and dissemination of market intelligence, the firms need to develop and utilize product-launch dynamic capabilities to explore and exploit innovation opportunities successfully.

Furthermore, the findings indicate that being capable of launching new products proficiently contributes to the pertinent market intelligence and deployment of this valuable resource. Thus, market-oriented firms that get involved in testing their new products' acceptance, interpreting the results of their market testing programs, developing a comprehensive launch strategy, and budgeting it appropriately not only increase their level of relevant and applied market intelligence but also better implement their market-oriented strategies. The results clearly reveal that by building internal capabilities to launch new products proficiently, the firms can enjoy the benefits of being market-oriented since such actions lead to tangible and advantageous results, such as better new product performance outcomes.

In addition, benefiting from market orientation and launch proficiency results in a co-specialization relationship that is decidedly hard for competitors to imitate. As a matter of fact, market-oriented firms endeavor to gain pertinent knowledge of customers, competitors, and other elements affecting the market. Likewise, by spreading this intelligence throughout their functional areas and responding to customers' needs collaboratively, they can leverage their product-launch capabilities in an advantageous way. Accordingly, specialization in intelligence generation processes not only helps the firms build such dynamic capabilities to test, strategically plan, and budget their new products' launch, but it also enables them to capitalize on such capabilities and benefit from better new product performance outcomes.

5.3 Limitations and directions for future research

The present research is subject to some methodological and theoretical limitations which shed light on noteworthy directions for further studies. First, we tested our hypotheses using data from Iran as a Middle Eastern country that has encountered international sanctions and high-level market uncertainty for several decades (Zaefarian et al., 2016); therefore, it is beneficial to examine this research's findings in a dissimilar national and cultural context to attain global generalizability. Second, this study adopted an individual market-intelligence processing view that limits our ability to closely delineate firms' market orientation as it relates to their launch proficiency deployment mechanisms. Thus, taking into consideration other perspectives on market orientation, such as a strategic perspective or a customer-orientation perspective (Lafferty and Hult, 2001) can shed more light on the bidirectional co-specialization association between market orientation and launch proficiency.

This study also suggests some further research avenues that could contribute to the literature. First, the research only identified and calibrated the importance of proficiency in launch activities as a complementary dynamic capability to market orientation, but what other kinds of managerially and theoretically meaningful resources and capabilities are complementary to market orientation? Therefore, for instance, future research can examine whether dynamic capabilities, such as transfer processes or strategic decision making (Eisenhardt and Martin, 2000), complement market orientation or not. Second, this study casts light on the conditions under which the complementarity between market orientation and launch proficiency enhances new product performance. Future studies have the opportunity to inspect the conditions under which this co-specialization relationship is likely to influence other business performance outcomes like the number of product innovations, speed to market, or firm performance. Finally, although there is no indication of a problem with endogeneity in this study, this was not tested, and future research could take into account instrumental-variable approaches (e.g., two-stage least squares) or instrument-free approaches (e.g., latent instrument variables) in order to statistically test endogeneity.

References:

Aloulou, W. J. (2019), "Impacts of strategic orientations on new product development and firm performances: Insights from Saudi industrial firms", *European Journal of Innovation Management,* Vol. 22 No. 2, pp. 257-280.

Armstrong, J. S. and Overton, T. S. (1977), "Estimating Nonresponse Bias in Mail Surveys", *Journal of Marketing Research,* Vol. 14 No. 3, pp. 396-402.

Asghari, S., Targholi, S., Kazemi, A., Shahriyari, S. and Rajabion, L. (2020), "A new conceptual framework for identifying the factors influencing the effectiveness of competitive intelligence", *Competitiveness Review,* Vol. ahead-of-print No. ahead-of-print.

Ashrafi, A. and Zare Ravasan, A. (2018), "How market orientation contributes to innovation and market performance: the roles of business analytics and flexible IT infrastructure", *Journal of Business & Industrial Marketing,* Vol. 33 No. 7, pp. 970-983.

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,* Vol. 12 No. 4, pp. 275-293.

Baker, W. E. and Sinkula, J. M. (1999a), "Learning Orientation, Market Orientation, and Innovation: Integrating and Extending Models of Organizational Performance", *Journal of Market-Focused Management,* Vol. 4 No. 4, pp. 295-308.

Baker, W. E. and Sinkula, J. M. (1999b), "The Synergistic Effect of Market Orientation and Learning Orientation on Organizational Performance", *Journal of the Academy of Marketing Science,* Vol. 27 No. 4, pp. 411-427.

Barczak, G. and Kahn, K. B. (2012), "Identifying new product development best practice", *Business Horizons,* Vol. 55 No. 3, pp. 293-305.

Barney, J. B. (1991), "Firm Resources and Sustained Competitive Advantage", *Journal of Management,* Vol. 17 No. 1, pp. 99-120.

Barreto, I. (2010), "Dynamic Capabilities: A Review of Past Research and an Agenda for the Future", *Journal of Management,* Vol. 36 No. 1, pp. 256-280.

Calantone, R. J., Di Benedetto, C. A. and Rubera, G. (2012), "Launch timing and launch activities proficiency as antecedents to new product performance", *Journal of Global Scholars of Marketing Science,* Vol. 22 No. 4, pp. 290-309.

Calantone, R. J., Di Benedetto, C. A. and Rubera, G. (2018), "Launch activities and timing in new product development", *Journal of Global Scholars of Marketing Science,* Vol. 28 No. 1, pp. 33-41.

Cheng, C. and Yang, M. (2019), "Creative process engagement and new product performance: The role of new product development speed and leadership encouragement of creativity", *Journal of Business Research,* Vol. 99, pp. 215-225.

Christensen, C. M. and Bower, J. L. (1996), "Customer Power, Strategic Investment, and the Failure of Leading Firms", *Strategic Management Journal,* Vol. 17 No. 3, pp. 197-218.

Chung, H. F. L. (2019), "How guanxi networking matters in the relation between market orientation and innovation in Asian emerging economies – the case of Markor", *Journal of Business & Industrial Marketing,* Vol. 34 No. 4, pp. 836-849.

Cooper, R. G. (1979), "The Dimensions of Industrial New Product Success and Failure", *Journal of Marketing,* Vol. 43 No. 3, pp. 93-103.

Cooper, R. G. and Kleinschmidt, E. J. (1987), "New Products: What Separates Winners from Losers?", *Journal of Product Innovation Management,* Vol. 4 No. 3, pp. 169-184.

Cui, A. S. and Xiao, Y. (2019), "The Role of Market and Technical Information Generation in New Product Development", *Journal of Product Innovation Management,* Vol. 36 No. 3, pp. 305-330.

Danneels, E. (2007), "The process of technological competence leveraging", *Strategic Management Journal,* Vol. 28 No. 5, pp. 511-533.

Day, G. S. (1994), "The Capabilities of Market-Driven Organizations", *Journal of Marketing,* Vol. 58 No. 4, pp. 37-52.

de Brentani, U. (1995), "New industrial service development: Scenarios for success and failure", *Journal of Business Research,* Vol. 32 No. 2, pp. 93-103.

Dogbe, C. S. K., Bamfo, B. A. and Pomegbe, W. W. K. (2020), "Market Orientation and New Product Success Relationship: The Role of Innovation Capability, Absorptive Capacity, Green Brand Positioning", *International Journal of Innovation Management*, pp. 2150033.

Dogbe, C. S. K., Tian, H. Y., Pomegbe, W. W. K., Sarsah, S. A. and Otoo, C. O. A. (2019), "Market Orientation and New Product Superiority among Small and Medium-sized Enterprises (SMEs): The Moderating Role of Innovation Capability", *International Journal of Innovation Management,* Vol. 0 No. 0, pp. 2050043.

Dong, X., Zhang, Z., Hinsch, C. A. and Zou, S. (2016), "Reconceptualizing the elements of market orientation: A process-based view", *Industrial Marketing Management,* Vol. 56, pp. 130-142.

Dwyer, L. and Mellor, R. (1991), "Organizational environment, new product process activities, and project outcomes", *Journal of Product Innovation Management,* Vol. 8 No. 1, pp. 39-48.

Eisenhardt, K. M., Furr, N. R. and Bingham, C. B. (2010), "CROSSROADS—Microfoundations of Performance: Balancing Efficiency and Flexibility in Dynamic Environments", *Organization Science,* Vol. 21 No. 6, pp. 1263-1273.

Eisenhardt, K. M. and Martin, J. A. (2000), "Dynamic Capabilities: What are they?", *Strategic Management Journal,* Vol. 21 No. 10/11, pp. 1105-1121.

Engelen, A. and Brettel, M. (2012), "A Coalitional Perspective on the Role of the R&D Department within the Organization", *Journal of Product Innovation Management,* Vol. 29 No. 3, pp. 489-505.

Feng, H., Morgan, N. A. and Rego, L. L. (2017), "Firm capabilities and growth: the moderating role of market conditions", *Journal of the Academy of Marketing Science,* Vol. 45 No. 1, pp. 76-92.

Fornell, C. and Larcker, D. F. (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error", *Journal of Marketing Research,* Vol. 18 No. 1, pp. 39-50.

Galindo-Rueda, F. and Verger, F. (2016), "OECD Taxonomy of Economic Activities Based on R&D Intensity", *OECD Science, Technology and Working Papers,* Vol. No. 2016/04, OECD Publishing Paris.

Giudici, A. and Reinmoeller, P. (2012), "Dynamic capabilities in the dock: A case of reification?", *Strategic Organization,* Vol. 10 No. 4, pp. 436-449.

Gotteland, D. and Boule, J. M. (2006), "The Market Orientation-New Product Performance Relationship: Redefining the Moderating Role of Environmental Conditions", *International Journal of Research in Marketing,* Vol. 23 No. 2, pp. 171-185.

Grant, R. M. (1996), "Prospering in Dynamically-Competitive Environments: Organizational Capability as Knowledge Integration", *Organization Science* Vol. 7 No. 4, pp. 375-387.

Guiltinan, J. P. (1999), "Launch Strategy, Launch Tactics, and Demand Outcomes", *Journal of Product Innovation Management,* Vol. 16 No. 6, pp. 509-529.

Guo, C., Wang, Y. J., Hao, A. W. and Saran, A. (2018), "Strategic positioning, timing of entry, and new product performance in business-to-business markets: do market-oriented firms make better decisions?", *Journal of Business-to-Business Marketing,* Vol. 25 No. 1, pp. 51-64.

Hair, J., Black, W., Babin, B. and Anderson, R. (2014a), *Multivariate Data Analysis*, Pearson, New York, NY.

Hair, J., Hult, G. T. M., Ringle, C. and Sarstedt, M. (2014b), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Sage Publications, California, CA.

Heirati, N. and O'Cass, A. (2016), "Supporting New Product Commercialization through Managerial Social Ties and Market Knowledge Development in an Emerging Economy", *Asia Pacific Journal of Management,* Vol. 33 No. 2, pp. 411-433.

Heirati, N., O'Cass, A. and Sok, P. (2017), "Identifying the resource conditions that maximize the relationship between ambidexterity and new product performance", *Journal of Business & Industrial Marketing,* Vol. 32 No. 8, pp. 1038-1050.

Hernández-Linares, R., Kellermanns, F. W. and López-Fernández, M. C. (2020), "Dynamic capabilities and SME performance: The moderating effect of market orientation", *Journal of Small Business Management*, pp. 1-34.

Homburg, C., Alavi, S., Rajab, T. and Wieseke, J. (2017), "The contingent roles of R&D–sales versus R&D–marketing cooperation in new-product development of business-to-business firms", *International Journal of Research in Marketing,* Vol. 34 No. 1, pp. 212-230.

Hoskins, J. D. and Griffin, A. (2019), "New product performance advantages for extending large, established fast moving consumer goods (FMCG) brands", *Journal of Product & Brand Management,* Vol. 28 No. 7, pp. 812-829.

Hsiao, Y.-C. and Wu, M.-H. (2020), "How organizational structure and strategic alignment influence new product success", *Management Decision,* Vol. 58 No. 1, pp. 182-200.

Hsieh, M. H., Tsai, K. H. and Wang, J. R. (2008), "The moderating effects of market orientation and launch proficiency on the product advantage–performance relationship", *Industrial Marketing Management,* Vol. 37 No. 5, pp. 580-592.

Hughes, P., Morgan, R. E., Hodgkinson, I. R., Kouropalatis, Y. and Lindgreen, A. (2020), "A diagnostic tool to determine a strategic improvisation Readiness Index Score (IRIS) to survive, adapt, and thrive in a crisis", *Industrial Marketing Management,* Vol. 88, pp. 485-499.

Hultink, E. J., Griffin, A., Robben, H. S. J. and Hart, S. (1998), "In search of generic launch strategies for new products", *International Journal of Research in Marketing,* Vol. 15 No. 3, pp. 269-285.

Hunt, S. D. (2002), *Foundations of Marketing Theory: Toward a General Theory of Marketing*, M.E. Sharpe, Armonk, NY.

Hunt, S. D. and Morgan, R. M. (1995), "The Comparative Advantage Theory of Competition", *Journal of Marketing,* Vol. 59 No. 2, pp. 1-15.

Ingenbleek, P. T. M., Frambach, R. T. and Verhallen, T. M. M. (2010), "The Role of Value-Informed Pricing in Market-Oriented Product Innovation Management*", *Journal of Product Innovation Management,* Vol. 27 No. 7, pp. 1032-1046.

Iyer, P., Davari, A., Srivastava, S. and Paswan Audhesh, K. (2020), "Market orientation, brand management processes and brand performance", *Journal of Product & Brand Management,* Vol. ahead-of-print No. ahead-of-print.

Iyer, P., Davari, A., Zolfagharian, M. and Paswan, A. (2019), "Market orientation, positioning strategy and brand performance", *Industrial Marketing Management,* Vol. 81, pp. 16-29.

Ju, M., Jin, J. L. and Zhou, K. Z. (2018), "How Can International Ventures Utilize Marketing Capability in Emerging Markets? Its Contingent Effect on New Product Development", *Journal of International Marketing,* Vol. 26 No. 4, pp. 1-17.

Kahn, K. B., Barczak, G., Nicholas, J., Ledwith, A. and Perks, H. (2012), "An Examination of New Product Development Best Practice", *Journal of Product Innovation Management,* Vol. 29 No. 2, pp. 180-192.

Kakapour, S., Morgan, T., Parsinejad, S. and Wieland, A. (2016), "Antecedents of corporate entrepreneurship in Iran: the role of strategic orientation and opportunity recognition", *Journal of Small Business & Entrepreneurship,* Vol. 28 No. 3, pp. 251-266.

Katsikea, E., Theodosiou, M. and Makri, K. (2019), "The interplay between market intelligence activities and sales strategy as drivers of performance in foreign markets", *European Journal of Marketing,* Vol. 53 No. 10, pp. 2080-2108.

Kavadias, S. and Ulrich, K. T. (2020), "Innovation and New Product Development: Reflections and Insights from the Research Published in the First 20 Years of Manufacturing & Service Operations Management", *Manufacturing & Service Operations Management,* Vol. 22 No. 1, pp. 84-92.

Keramati, A., Mehrabi, H. and Mojir, N. (2010), "A process-oriented perspective on customer relationship management and organizational performance: An empirical investigation", *Industrial Marketing Management,* Vol. 39 No. 7, pp. 1170-1185.

Kim, N., Im, S. and Slater, S. F. (2013), "Impact of Knowledge Type and Strategic Orientation on New Product Creativity and Advantage in High-Technology Firms", *Journal of Product Innovation Management,* Vol. 30 No. 1, pp. 136-153.

Kohli, A. K. and Jaworski, B. J. (1990), "Market Orientation: The Construct, Research Propositions, and Managerial Implications", *Journal of Marketing,* Vol. 54 No. 2, pp. 1-18.

Kohli, A. K., Jaworski, B. J. and Kumar, A. (1993), "MARKOR: A Measure of Market Orientation", *Journal of Marketing Research,* Vol. 30 No. 4, pp. 467-477.

Kou, T.-C., Chiang, C.-T. and Chiang, A.-H. (2018), "Effects of IT-based supply chains on new product development activities and the performance of computer and communication electronics manufacturers", *Journal of Business & Industrial Marketing,* Vol. 33 No. 7, pp. 869-882.

Kou, T.-C. and Lee, B. C. Y. (2015), "The influence of supply chain architecture on new product launch and performance in the high-tech industry", *Journal of Business & Industrial Marketing,* Vol. 30 No. 5, pp. 677-687.

Kumar, V., Jones, E., Venkatesan, R. and Leone, R. P. (2011), "Is Market Orientation a Source of Sustainable Competitive Advantage or Simply the Cost of Competing?", *Journal of Marketing,* Vol. 75 No. 1, pp. 16-30.

Lafferty, B. A. and Hult, G. T. M. (2001), "A synthesis of contemporary market orientation perspectives", *European Journal of Marketing,* Vol. 35 No. 1/2, pp. 92-109.

Lamore, P. R., Berkowitz, D. and Farrington, P. A. (2013), "Proactive/Responsive Market Orientation and Marketing—Research and Development Integration", *Journal of Product Innovation Management,* Vol. 30 No. 4, pp. 695-711.

Langerak, F., Hultink, E. J. and Robben, H. S. J. (2004), "The Impact of Market Orientation, Product Advantage, Launch Proficiency on New Product Performance and Organizational Performance", *Journal of Product Innovation Management,* Vol. 21 No. 2, pp. 79-94.

Ledwith, A. and O'Dwyer, M. (2008), "Product launch, product advantage and market orientation in SMEs", *Journal of Small Business and Enterprise Development,* Vol. 15 No. 1, pp. 96-110.

Liu, C.-L., Zhang-Zhang, Y. and Ghauri Pervez, N. (2020), "The influence of internet marketing capabilities on international market performance", *International Marketing Review,* Vol. 37 No. 3, pp. 447-469.

Liu, W. and Atuahene-Gima, K. (2018), "Enhancing product innovation performance in a dysfunctional competitive environment: The roles of competitive strategies and market-based assets", *Industrial Marketing Management,* Vol. 73, pp. 7-20.

Maidique, M. A. and Zirger, B. J. (1984), "A study of success and failure in product innovation: The case of the U.S. electronics industry", *IEEE Transactions on Engineering Management,* Vol. EM-31 No. 4, pp. 192-203.

Menguc, B. and Auh, S. (2006), "Creating a Firm-level Dynamic Capability through Capitalizing on Market Orientation and Innovativeness", *Journal of the Academy of Marketing Science,* Vol. 34 No. 1, pp. 63-73.

Morgan, N. A., Katsikeas, C. S. and Vorhies, D. W. (2012), "Export marketing strategy implementation, export marketing capabilities, and export venture performance", *Journal of the Academy of Marketing Science,* Vol. 40 No. 2, pp. 271-289.

Morgan, N. A., Vorhies, D. W. and Mason, C. H. (2009), "Market Orientation, Marketing Capabilities, and Firm Performance", *Strategic Management Journal,* Vol. 30 No. 8, pp. 909-920.

Morgan, N. A., Zou, S., Vorhies, D. W. and Katsikeas, C. S. (2003), "Experiential and Informational Knowledge, Architectural Marketing Capabilities, and the Adaptive Performance of Export Ventures: A Cross-National Study", *Decision Sciences,* Vol. 34 No. 2, pp. 287-321.

Morgan, T. and Anokhin, S. A. (2019), "The joint impact of entrepreneurial orientation and market orientation in new product development: Studying firm and environmental contingencies", *Journal of Business Research*.

Morgan, T., Anokhin, S. A. and Wincent, J. (2019), "Influence of market orientation on performance: the moderating roles of customer participation breadth and depth in new product development", *Industry and Innovation*, pp. 1-18.

Morgan, T., Obal, M. and Anokhin, S. (2018), "Customer participation and new product performance: Towards the understanding of the mechanisms and key contingencies", *Research Policy,* Vol. 47 No. 2, pp. 498-510.

Mu, J. and Di Benedetto, C. A. (2011), "Strategic orientations and new product commercialization: mediator, moderator, and interplay", *R&D Management,* Vol. 41 No. 4, pp. 337-359.

Mu, J., Thomas, E., Peng, G. and Di Benedetto, A. (2017), "Strategic orientation and new product development performance: The role of networking capability and networking ability", *Industrial Marketing Management,* Vol. 64 No. Supplement C, pp. 187-201.

Najafi-Tavani, S., Najafi-Tavani, Z., Naudé, P., Oghazi, P. and Zeynaloo, E. (2018), "How collaborative innovation networks affect new product performance: Product innovation capability, process innovation capability, and absorptive capacity", *Industrial Marketing Management,* Vol. 73, pp. 193-205.

Najafi-Tavani, S., Sharifi, H. and Najafi-Tavani, Z. (2016), "Market orientation, marketing capability, and new product performance: The moderating role of absorptive capacity", *Journal of Business Research,* Vol. 69 No. 11, pp. 5059-5064.

Najafi Tavani, S., Sharifi, H. and S. Ismail, H. (2013), "A study of contingency relationships between supplier involvement, absorptive capacity and agile product innovation", *International Journal of Operations & Production Management,* Vol. 34 No. 1, pp. 65-92.

Narver, J. C., Slater, S. F. and Tietje, B. (1998), "Creating a Market Orientation", *Journal of Market-Focused Management,* Vol. 2 No. 3, pp. 241-255.

O'Cass, A. and Heirati, N. (2015), "Mastering the complementarity between marketing mix and customer-focused capabilities to enhance new product performance", *Journal of Business & Industrial Marketing,* Vol. 30 No. 1, pp. 60-71.

Pantouvakis, A., Vlachos, I. and Zervopoulos, P. D. (2017), "Market orientation for sustainable performance and the inverted-U moderation of firm size: Evidence from the Greek shipping industry", *Journal of Cleaner Production,* Vol. 165, pp. 705-720.

Pearl, J. (1998), "Graphs, Causality, and Structural Equation Models", *Sociological Methods & Research,* Vol. 27 No. 2, pp. 226-284.

Ping, R. A. (1995), "A Parsimonious Estimating Technique for Interaction and Quadratic Latent Variables", *Journal of Marketing Research,* Vol. 32 No. 3, pp. 336-347.

Podsakoff, P. M., MacKenzie, S. B. and Podsakoff, N. P. (2012), "Sources of Method Bias in Social Science Research and Recommendations on How to Control It", *Annual Review of Psychology,* Vol. 63 No. 1, pp. 539-569.

Powers, T., L., Kennedy, K. N. and Choi, S. (2020), "Market orientation and performance: industrial supplier and customer perspectives", *Journal of Business & Industrial Marketing,* Vol. ahead-of-print No. ahead-of-print.

Protogerou, A., Caloghirou, Y. and Lioukas, S. (2011), "Dynamic capabilities and their indirect impact on firm performance", *Industrial and Corporate Change,* Vol. 21 No. 3, pp. 615-647.

Rodríguez-Pinto, J., Carbonell, P. and Rodríguez-Escudero, A. I. (2011), "Speed or quality? How the order of market entry influences the relationship between market orientation and new product performance", *International Journal of Research in Marketing,* Vol. 28 No. 2, pp. 145-154.

Romaniuk, J. and Hartnett, N. (2017), "The relative influence of advertising and word-of-mouth on viewing new season television programmes", *European Journal of Marketing,* Vol. 51 No. 1, pp. 65-81.

Sangari, M. S. and Razmi, J. (2015), "Business intelligence competence, agile capabilities, and agile performance in supply chain: An empirical study", *The International Journal of Logistics Management,* Vol. 26 No. 2, pp. 356-380.

Saul, C. J. and Gebauer, H. (2018), "Born solution providers – Dynamic capabilities for providing solutions", *Industrial Marketing Management,* Vol. 73, pp. 31-46.

Schoenherr, T. and Swink, M. (2015), "The Roles of Supply Chain Intelligence and Adaptability in New Product Launch Success", *Decision Sciences,* Vol. 46 No. 5, pp. 901-936.

Schweiger, S. A., Stettler, T. R., Baldauf, A. and Zamudio, C. (2019), "The complementarity of strategic orientations: A meta-analytic synthesis and theory extension", *Strategic Management Journal,* Vol. 40 No. 11, pp. 1822-1851.

Sherman, J. D., Berkowitz, D. and Souder, W. E. (2005), "New Product Development Performance and the Interaction of Cross-Functional Integration and Knowledge Management", *Journal of Product Innovation Management,* Vol. 22 No. 5, pp. 399-411.

Song, X. M. and Parry, M. E. (1994), "The Dimensions of Industrial New Product Success and Failure in State Enterprises in the People's Republic of China", *Journal of Product Innovation Management,* Vol. 11 No. 2, pp. 105-118.

Song, X. M. and Parry, M. E. (1997), "The Determinants of Japanese New Product Success", *Journal of Marketing Research,* Vol. 34 No. 1, pp. 64-76.

Storey, C., Cankurtaran, P., Papastathopoulou, P. and Hultink, E. J. (2016), "Success Factors for Service Innovation: A Meta-Analysis", *Journal of Product Innovation Management,* Vol. 33 No. 5, pp. 527-548.

Tajeddini, K. and Ratten, V. (2020), "The moderating effect of brand orientation on inter-firm market orientation and performance", *Journal of Strategic Marketing,* Vol. 28 No. 3, pp. 194-224.

Teece, D. J., Pisano, G. and Shuen, A. (1997), "Dynamic Capabilities and Strategic Management", *Strategic Management Journal,* Vol. 18 No. 7, pp. 509-533.

Valtakoski, A., Reynoso, J., Maranto, D., Edvardsson, B. and Maravillo Cabrera, E. (2019), "Cross-country differences in new service development: The moderating effects of national culture", *Journal of Service Management,* Vol. 30 No. 2, pp. 186-208.

Wahyono and Hutahayan, B. (2020), "The relationships between market orientation, learning orientation, financial literacy, on the knowledge competence, innovation, and performance of small and medium textile industries in Java and Bali", *Asia Pacific Management Review*.

Wang, L., Jin, J. L., Zhou, K. Z., Li, C. B. and Yin, E. (2020), "Does customer participation hurt new product development performance? Customer role, product newness, and conflict", *Journal of Business Research,* Vol. 109, pp. 246-259.

Wei, Y. and Atuahene-Gima, K. (2009), "The Moderating Role of Reward Systems in the Relationship between Market Orientation and New Product Performance in China", *International Journal of Research in Marketing,* Vol. 26 No. 2, pp. 89-96.

Wei, Y., Frankwick, G. L. and Nguyen, B. H. (2012), "Should Firms Consider Employee Input in Reward System Design? The Effect of Participation on Market Orientation and New Product Performance", *Journal of Product Innovation Management* Vol. 29 No. 4, pp. 564-558.

Wilden, R., Devinney, T. M. and Dowling, G. R. (2016), "The Architecture of Dynamic Capability Research Identifying the Building Blocks of a Configurational Approach", *Academy of Management Annals,* Vol. 10 No. 1, pp. 997-1076.

Wilden, R., Gudergan, S. and Lings, I. (2019), "The interplay and growth implications of dynamic capabilities and market orientation", *Industrial Marketing Management,* Vol. 83, pp. 21-30.

Wilden, R. and Gudergan, S. P. (2015), "The impact of dynamic capabilities on operational marketing and technological capabilities: investigating the role of environmental turbulence", *Journal of the Academy of Marketing Science,* Vol. 43 No. 2, pp. 181-199.

Winter, S. G. (2003), "Understanding dynamic capabilities", *Strategic Management Journal,* Vol. 24 No. 10, pp. 991-995.

Wright, M., Filatotchev, I., Hoskisson, R. E. and Peng, M. W. (2005), "Strategy Research in Emerging Economies: Challenging the Conventional Wisdom*", *Journal of Management Studies,* Vol. 42 No. 1, pp. 1-33.

Yang, D., Sonmez, M., Gonzalez, M., Liu, Y. and Yoder, C. Y. (2019), "Consumer-based brand equity and consumer-based brand performance: evidence from smartphone brands in the USA", *Journal of Brand Management,* Vol. 26 No. 6, pp. 717-732.

Yang, Z., Wu, Y., Lu, C. and Tu, Y. (2020), "Effects of paid search advertising on product sales: a Chinese semantic perspective", *Journal of Marketing Management*, pp. 1-24.

Yeniaras, V., Kaya, I. and Ashill, N. (2020), "The effects of social ties on innovation behavior and new product performance in emerging economies: evidence from Turkey", *Journal of Business & Industrial Marketing,* Vol. 35 No. 4, pp. 699-719.

Zaefarian, G., Forkmann, S., Mitręga, M. and Henneberg, S. C. (2017), "A Capability Perspective on Relationship Ending and Its Impact on Product Innovation Success and Firm Performance", *Long Range Planning,* Vol. 50 No. 2, pp. 184-199.

Zaefarian, G., Najafi-Tavani, Z., Henneberg, S. C. and Naudé, P. (2016), "Do supplier perceptions of buyer fairness lead to supplier sales growth?", *Industrial Marketing Management,* Vol. 53, pp. 160-171.

Zhang, J. and Zhu, M. (2016), "Market orientation, product innovation and export performance: evidence from Chinese manufacturers", *Journal of Strategic Marketing,* Vol. 24 No. 5, pp. 377-397.

Zhou, K. Z., Yim, C. K. and Tse, D. K. (2005), "The Effects of Strategic Orientations on Technology- and Market-Based Breakthrough Innovations", *Journal of Marketing,* Vol. 69 No. 2, pp. 42-60.
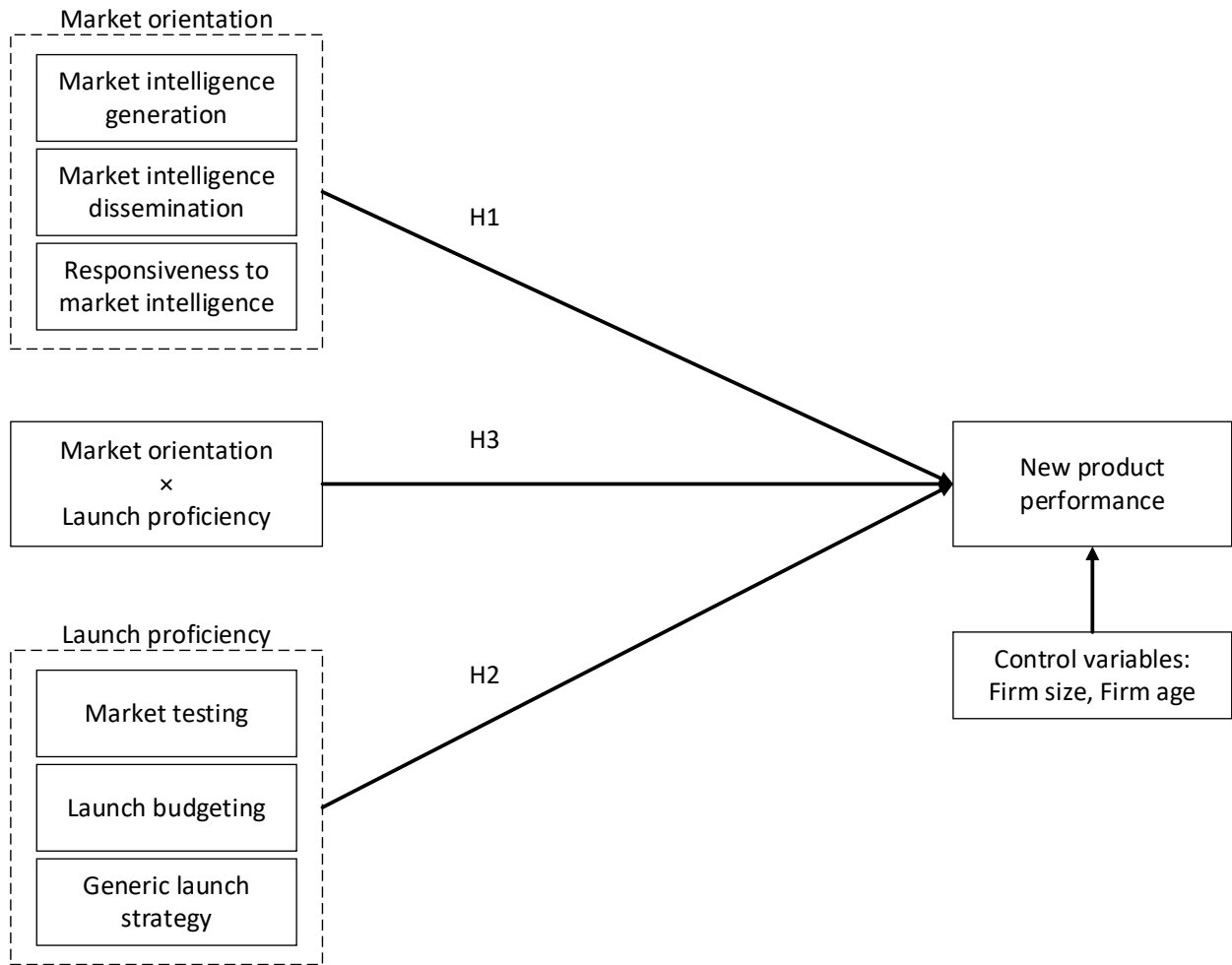
Figure 1. Research conceptual model

Table 1. Measurement analysis

Variable	Mean	SD	Factor loadings	AVE	CR	Cronbach's alpha
New product performance	5.36	1.02	.71-.86	.59	.87	.87
Market intelligence generation	5.69	1.17	.69-.76	.53	.81	.81
Market intelligence dissemination	5.59	1.22	.70-.77	.53	.77	.77
Responsiveness to market intelligence	5.53	1.15	.68-.80	.54	.78	.76
Proficiency in market testing	5.25	1.28	.70-.72	.50	.75	.74
Proficiency in launch budgeting	5.45	1.24	.71-.83	.60	.86	.85
Proficiency in generic launch strategy	5.54	1.04	.63-.79	.53	.90	.90
Firm's size	3.57	1.06	n/a	n/a	n/a	n/a
Firm's age	2.83	.79	n/a	n/a	n/a	n/a

Note: SD stands for standard deviation. The natural logarithm value was given to each control variable instead of the original value.

Table 2. Inter-construct correlation and the square root of the average variance extracted

	1	2	3	4	5	6	7	8	9
(1) NPP	*.76*								
(2) MIG	.31**	*.72*							
(3) MID	.38**	.52**	*.72*						
(4) RTMI	.35**	.29**	.50**	*.73*					
(5) PIMT	.25**	.39**	.41**	.42**	*.70*				
(6) PILB	.33**	.44**	.56**	.48**	.40**	*.77*			
(7) PIGLS	.45**	.52**	.57**	.56**	.49**	.66**	*.72*		
(8) Firm's size	.15*	.04	.02	-.07	.00	.07	.04	*NA*	
(9) Firm's age	.14	.01	.02	.07	.11	.05	.00	.32**	*NA*

Note: The bold italicized figures on the diagonal are the square roots of the AVEs. ** (p<.01). * (p<.05).
NPP: New product performance. MIG: Market intelligence generation. MID: Market intelligence dissemination.
RTMI: Responsiveness to market intelligence. PIMT: Proficiency in market testing. PILB: Proficiency in launch budgeting. PIGLS: Proficiency in generic launch strategy.

Table 3. Second-order measurement models

First-order construct	Market Orientation
Market intelligence generation	.65
Market intelligence dissemination	.87
Responsiveness to market intelligence	.77
χ^2= 58.38; df= 31; CFI= .95; IFI= .95; RMSEA= .07; AVE= .59	

First-order construct	Launch Proficiency
Proficiency in market testing	.89
Proficiency in launch budgeting	.77
Proficiency in generic launch strategy	.92
χ^2= 224.60; df= 84; CFI= .91; IFI= .91; RMSEA= .08; AVE= .74	

Table 4. Assessment of the structural models

Structural model statistics	Main effects (model 1)	Interaction effect (model 2)
χ^2	699.45	754.20
d.f.	446	473
CFI	.91	.90
IFI	.91	.90
RMSEA	.05	.05
Path	**Path estimate**	**Path estimate**
Predictors		
MO → NPP	.92 (.84)	.72 (.99)
LP → NPP	-.40 (-.37)	-.10 (-1.44)
Interaction		
MO×LP → NPP		.24 (2.70)
Controls		
Firm's size	.16 (1.53)	.17 (1.99)
Firm's age	.06 (.63)	.04 (.50)
R^2 (NPP)	.33	.38

Note: MO: market orientation; LP: launch proficiency; NPP: new product performance; T-values are in parentheses.
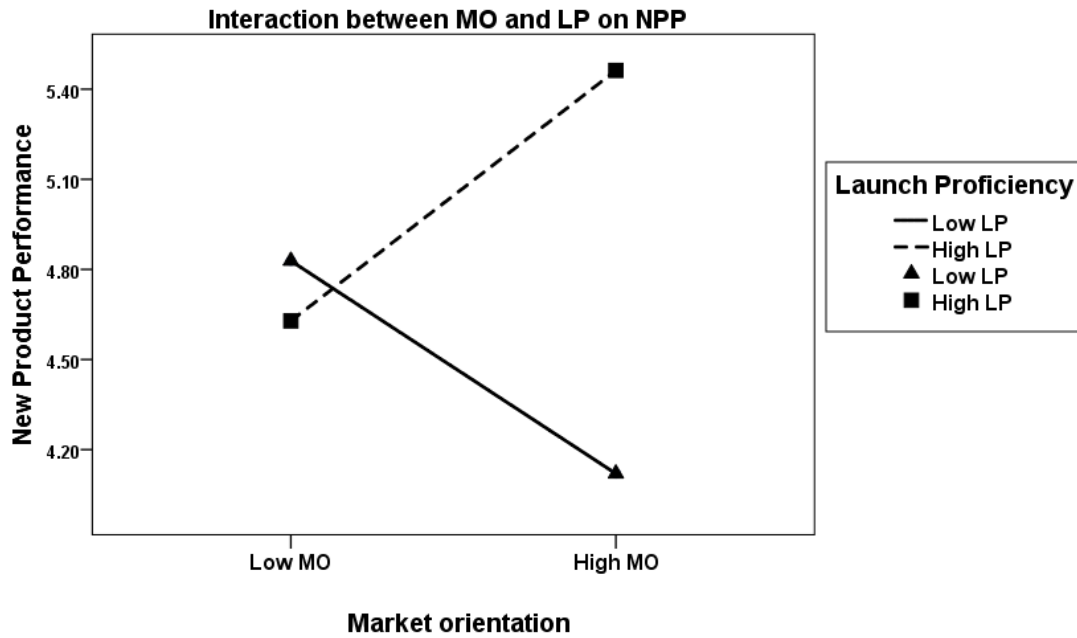
Figure 2. Graphical presentation of the interaction between market orientation (MO) and launch proficiency (LP) on new product performance (NPP).

Appendix 1. Measurement scales

Constructs	Source

Market intelligence generation (1: Strongly disagree; 7: Strongly agree)

Definition: Generating knowledge and understanding of customers' current and future needs and preferences and ongoing monitoring of competition conditions (Ashrafi and Zare Ravasan, 2018; Chung, 2019; Dong et al., 2016; Katsikea et al., 2019; Najafi-Tavani et al., 2016; Tajeddini and Ratten, 2020).

1. In this firm, we meet with customers at least once a year to find out what products they will need in the future.

2. In this firm, we do a lot of in-house market research about current and future customer needs.

3. We poll end-users at least once a year to assess the quality of our products.

4. We periodically review the likely effects of changes in our business environment (e.g., regulations) on customers.

Morgan et al. (2009); Wei and Atuahene-Gima (2009)

Market intelligence dissemination (1: Strongly disagree; 7: Strongly agree)

Definition: Exchange of intelligence within and across departments through cross-departmental integration and collaboration as a way of enhancing communication and information to better meet the organization's goals (Chung, 2019; Dong et al., 2016; Katsikea et al., 2019; Powers et al., 2020).

1. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.

2. Marketing personnel in our firm spend time discussing customers' future needs with other functional departments.

3. Data on customer satisfaction are disseminated at all levels in this firm on a regular basis.

Morgan et al. (2009)

Responsiveness to market intelligence (1: Strongly disagree; 7: Strongly agree)

Definition: Effective, cooperative, and systematic firm reactions, such as innovating and introducing appropriate products and services, to market changes (Chung, 2019; Dong et al., 2016; Katsikea et al., 2019; Najafi-Tavani et al., 2016; Tajeddini and Ratten, 2020).

1. We periodically review our product development efforts to ensure that they are in line with what customers want.

2. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion. (Reverse coded)

3. Several departments get together frequently to plan a response to changes taking place in our business environment.

Morgan et al. (2009); Wei and Atuahene-Gima (2009)

Proficiency in market testing (1: Done very poorly; 7: Done excellently)

Definition: Marketing capabilities pertaining to activities required to test both the physical product and the launch tactics in the target market (Calantone et al., 2012, 2018; Hsieh et al., 2008; Langerak et al., 2004).

1. Selecting customers for testing market acceptance.

2. Submitting the marketing program to customers for testing.

3. Interpreting results from the market testing program.

Langerak et al. (2004)

Proficiency in launch budgeting (1: Done very poorly; 7: Done excellently)

Definition: Marketing capabilities pertaining to a budgeting task required for developing, implementing, and monitoring launch strategy and tactics (Calantone et al., 2012, 2018; Hsieh et al., 2008; Langerak et al., 2004).

1. Determining advertising expenditures.

2. Determining distribution expenditures.

3. Determining the launch budget.

4. Allocating the launch budget.

Langerak et al. (2004)

Proficiency in generic launch strategy (1: Done very poorly; 7: Done excellently)

Definition: Marketing capabilities pertaining to the tasks required for answering the what, where, when, and why to launch questions (e.g., segmenting, targeting, and positioning) and also the tasks related to

Constructs	Source
the marketing mix decisions (i.e., product tactics, distribution, pricing, and promotion) on how to launch the new product (Calantone et al., 2012, 2018; Hsieh et al., 2008; Langerak et al., 2004).	
1. Selecting target customer groups. 2. Selecting the new products' positioning. 3. Determining launch objectives. 4. Formulating the growth strategy. 5. Establishing standards to judge the new products' performance and market acceptance. 6. Selecting channels of distribution. 7. Designing the marketing communication mix. 8. Designing the product mix.	Langerak et al. (2004)
New product performance (1: very poor; 7: very good) *Definition: New product performance reflects market share, financial outcome, and customer acceptance measures of new product success (Cheng and Yang, 2019; Hsiao and Wu, 2020; Morgan et al., 2018; Najafi-Tavani et al., 2018; Yeniaras et al., 2020).* 1. The firm has met sales growth goals of the new product. 2. The firm has met market share goals of the new product. 3. The firm has met return on investment goals of the new product. 4. The firm has met customer acceptance goals of the new product. 5. The firm has met development costs goals of the new product.	Najafi Tavani et al. (2013)

Appendix 2. Recent research on market orientation, launch proficiency, and new product performance

Author(s)	Aim/Objectives	Findings
Tajeddini and Ratten (2020)	The purpose of the paper is to investigate the relationships between inter-firm market orientation, brand orientation, and firm performance. It	Inter-firm market orientation positively and significantly influences firms' marketing and financial performance. Brand orientation positively and

Author(s)	Aim/Objectives	Findings
	also tests for the moderating role of brand orientation in the relationship between inter-firm market orientation and firm performance.	significantly influences firms' marketing and financial performance. The interaction of inter-firm market orientation and brand orientation positively and significantly influences firms' marketing and financial performance.
Powers et al. (2020)	This paper aims to examine the relationship between market orientation and performance based on multiple perspectives (managers, salespersons, customers) and measures (subjective, objective). It also examines the relationship between subjective performance and objective performance.	The results indicate that managers, salespersons, and customers all indicate a positive relationship between market orientation and perceived performance. Market orientation and actual branch performance were not related when assessed by any of the three respondent groups. Only salespersons were able to significantly relate perceived firm performance to actual performance.
Liu et al. (2020)	The paper aims to explore the influential path of internet marketing capabilities affecting international market performance. The paper further investigates the mitigating roles of market- and entrepreneurial-oriented behavior and knowledge internalization in this relationship. The effect of internet use for customer management on internet marketing capabilities is also examined.	Use of the internet for customer management positively influences internet marketing capabilities. The results also support the positive impacts of internet marketing capabilities on market- and entrepreneurial-oriented behavior. Knowledge internalization mediates the relationships between market- and entrepreneurial-oriented behavior and international market performance
Katsikea et al. (2019)	The purpose of this paper is to empirically analyze the relationships between intelligence generation and dissemination and the export customer segmentation, prioritizing, and targeting. It is also aimed at analyzing the effects of export customer segmentation, prioritizing, and targeting on export market performance.	Findings indicate that export market intelligence generation and dissemination activities support and facilitate the development of effective export sales strategies tailored to serve individual foreign accounts. Furthermore, all strategic dimensions of an export sales strategy demonstrate significant positive effects on export performance.
Chung (2019)	This study investigates the relations among market orientation, guanxi networking and innovation using the MARKOR scale. It also analyzes the direct impacts of market intelligence generation, dissemination, and responsiveness on the innovation of Asian firms and considers the moderating roles of business guanxi networking and political guanxi networking in these relationships.	The findings of this study confirm that, when operating in an Asian emerging economy, both intelligence generation and responsiveness have a positive and direct impact on innovation. Though intelligence dissemination has no direct influence on innovation, its alignment with business and political guanxi still leads to a positive effect on innovation. The coalition of responsiveness and political guanxi,

Author(s)	Aim/Objectives	Findings
		however, has a negative influence on innovation.
Ashrafi and Zare Ravasan (2018)	This study intends to explore how market-oriented firms achieve innovation and market performance and what factors actually moderate this relationship. The present study aims to explore the relationship between MO, innovation, and market performance. This study also attempts to examine the intervening role of IT infrastructure, business analytics (BA) capabilities, and market turbulence in the proposed model.	Market intelligence generation is not significantly related to market intelligence responsiveness. A flexible IT infrastructure significantly moderates the relationship between intelligence generation and intelligence responsiveness. BA capability moderates the relationship between intelligence dissemination and responsiveness. Intelligence responsiveness affects the firms' market performance through the mediation of innovation performance. Intelligence responsiveness directly affects the firms' market performance. Market turbulence positively moderates the relationship between intelligence responsiveness and innovation performance. Market turbulence positively moderates the relationship between intelligence responsiveness and market performance.
Pantouvakis et al. (2017)	The authors examine the influence of market orientation on shipping firms' performance and analyze the moderating effect of firm size on the relationship between market orientation and firm performance. They also investigate the relationship between firm size and market orientation efficiency of shipping firms.	Response design and response implementation positively influence the firms' financial performance. Intelligence generation, intelligence dissemination, and response design positively influence the firms' market performance. Firm size positively moderates the relationship between response implementation and firms' financial and market performance. There is an inverted U-shape effect of firm size on firm MO performance.
Dong et al. (2016)	The current research disaggregates the MO construct into three sub-constructs in an effort to explore the relationships between the three dimensions of MO and its implementation process within the firm.	For centralized and experienced firms, a high level of intelligence dissemination may actually hinder responsiveness. In decentralized and inexperienced firms, high levels of dissemination are linked to increased responsiveness. The mediation of intelligence dissemination on the link between intelligence generation and responsiveness depends on the firm's levels of both centralization and international experience.
Najafi-Tavani et al. (2016)	This study attempts to examine absorptive capacity (AC) as a moderator of the relationships among market orientation, the interaction of market orientation and marketing	The results indicate positive relationships among market orientation, marketing capability, and new product performance. The results also show that AC positively moderates the relationship between market

Author(s)	Aim/Objectives	Findings
	capability, and firms' new product performance.	orientation and firms' new product performance. The three-way interaction of MO, AC, and MC exerts a positive influence on firms' new product performance.
Schoenherr and Swink (2015)	This study examines the relationships between market intelligence generation and new product launch success through the mediating roles of supply chain adaptability and product innovation capability. It also considers the relationship between new product launch success and firm financial performance.	Supplier intelligence generation positively and significantly affects new product launch success and firm financial performance through supply chain adaptability. Customer intelligence generation positively and significantly affects new product launch success and firm financial performance through supply chain adaptability and product innovation capability. Competitor intelligence generation positively and significantly affects new product launch success and firm financial performance through supply chain adaptability and product innovation capability.
Kahn et al. (2012)	This study aims to identify new product development (NPD) best practices.	The present study finds that seven NPD dimensions are recommended as best NPD practices including strategy, research, commercialization, process, company culture, project climate, and metrics.
Barczak and Kahn (2012)	This research attempts to identify NPD best practices with the expectation that companies will manifest and sustain these to augment their NPD efforts.	The study has resulted in a framework developed from prior benchmarking studies, a Delphi methodology with leading experts, and a survey involving over 300 NPD practitioners. The framework distinguishes NPD practices across seven dimensions: Strategy, Research, Commercialization, Process, Project Climate, Company Culture, and Metrics/Performance Measurement.
Ledwith and O'Dwyer (2008)	This study aims to examine the impact of product launch, product advantage and market orientation on new product development performance and organizational performance in SMEs.	Proficiency in launch strategy and launch tactics are positively and significantly correlated with large firms' new product performance and organizational performance. Proficiency in market testing, launch budgeting, launch strategy, and launch tactics are positively and significantly correlated with small firms' new product performance and organizational performance. Customer orientation, competitor orientation, and interfunctional coordination are not significantly related to

Author(s)	Aim/Objectives	Findings
		large firms' new product performance and organizational performance. Customer orientation is positively and significantly related to small firms' organizational performance. Competitor orientation and interfunctional coordination are positively and significantly correlated with small firms' new product performance and organizational performance. Product advantage is not significantly correlated with firms' new product performance and organizational performance.
Hsieh et al. (2008)	This study examines how market orientation and launch proficiency exert contingent influences on the product advantage–performance relationship. Also, this study examines the same issues under different dimensions of new product performance.	Product advantage is significantly and positively related to market performance, but has no significant influence on financial performance. Market orientation and launch proficiency in tactics indeed moderate the relationship between product advantage and new product performance, either as a whole or regarding different types of product performance.
Langerak et al. (2004)	This research determines how critical NPD activities are for a market-oriented firm to achieve superior performance. It also investigates the structural relationships among market orientation, new product advantage, proficiency in new product launch activities, new product performance, and organizational performance.	Market orientation is related positively to product advantage and to the proficiency in market testing, launch budgeting, launch strategy, and launch tactics. Product advantage and the proficiency in launch tactics are related positively to new product performance, which itself is related positively to organizational performance. Market orientation has no direct relationship with new product performance and to organizational performance.
Hsiao and Wu (2020)	The purpose of this paper is to review and re-examine the role of the organization-level determinants from the perspectives of competence-based views. This study is aimed at investigating the associations between formalization, decentralization, and new product performance. This research also examines the moderating roles of market-oriented strategy and technology-oriented strategy in these relationships.	The empirical results indicate that formalization is positively related to new product performance while decentralization has an inverse U-shaped curvilinear effect on new product performance. Furthermore, the regression findings also indicate that market-oriented strategy negatively moderates the relationship between formalization and new product performance, while technology-oriented strategy positively moderates the curvilinear relationship between decentralization and new product performance.
Yeniaras et al. (2020)	The authors examine whether innovation behavior binds the political and business ties of the firm to new	Business ties are positively related to exploratory innovation behavior and political ties hamper such behavior.

Author(s)	Aim/Objectives	Findings
	product performance. They also examine if these effects are contingent on variations in the institutional environment and market environment.	Government support hinders firms' disruptive innovation while encouraging incremental innovation behavior. The findings also demonstrate that the positive and indirect relation of business ties to new product performance through exploratory and exploitative innovation is largely insensitive to changes in market and institutional environments. Political ties are negatively (positively) and indirectly related to new product performance through exploratory (exploitative) innovation.
Cheng and Yang (2019)	The purpose of this paper is to investigate the processes underlying the relationship between creativity processes and new product performance. Also, the study hypothesizes that NPD speed mediates the relationship between creativity processes and new product performance and that encouragement by leadership moderates this mediating model.	The study found that (1) not all the components of creativity processes related positively to new product performance. Specifically, information search and encoding (ISE) and idea and alternative generation (IG) are respectively and positively related to new product performance, but problem identification (PI) is not. (2) NPD speed fully mediates the influence of PI and ISE on new product performance, but it only partially mediates the relationship between IG and new product performance. (3) Encouragement by leadership positively moderates the relationship of PI and NPD speed as well as the relationship of ISE and NPD speed; however, it does not significantly moderate the relationship between IG and NPD speed.
Morgan et al. (2018)	The study investigates the effect of customer participation on new product development performance and considers the mediating role of innovativeness. It also examines the moderating effect of absorptive capacity on this relationship.	The study confirms that, overall, customer participation is positively related to new product development performance and that the effect is mediated by innovativeness. The study also demonstrates that these effects are contingent upon absorptive capacity of the firm in question such that firms with high absorptive capacity stand to gain more from engaging their customers in new product development than firms with low absorptive capacity, especially at the later stages of the NPD process.
Najafi-Tavani et al. (2018)	This research aims to explore the role of product and process innovation capabilities as two distinct mechanisms through which	The study finds that the effects of collaborative innovation networks on either product or process innovation capability are significant only in the presence of

Author(s)	Aim/Objectives	Findings
	collaborative innovation networks improve new product performance. The study also examines the contingent effects of absorptive capacity on the relationship between collaborative innovation networks and the two innovation capability dimensions (i.e. product and process innovation).	absorptive capacity. The analyses further indicate that in the presence of absorptive capacity, only collaboration with research organizations and competitors has a positive effect on product innovation capability. Process innovation capabilities and product innovation capabilities positively influence new product performance.