# Mastering the complementarity between marketing mix, brand management, customer relationship management capabilities to enhance new product performance

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#### Abstract

*Purpose:* This study addresses the extent that the deployment of and complementarity between marketing mix, brand management, and customer relationship management capabilities provide firms the capacity to transform their market knowledge into effective responsive actions that help to achieve new product success.

*Methodology:* A questionnaire was used as the primary means of data collection. Data from 160 large B2B firms across a variety of industries in Iran were analyzed using partial least squares regression to test the hypothesized paths.

*Findings:* The results show that (a) market-oriented firms are better at deploying marketing mix, brand management, and customer relationship management capabilities, and these capabilities help to drive new product performance and (b) the complementarity between these marketing capabilities enhances the firm's capacity to achieve new product success more than deploying each capability in isolation.

*Contributions:* In contrast to many existing studies, this study is the first to examine the role of marketing mix, brand management, and customer relationship management capabilities and their complementarity as intervening mechanisms in the relationship between MO and new product performance. Further, this study extends the marketing literature by investigating the role of different forms of marketing capabilities in a complementary fashion in the context of a Middle-Eastern economy.

**Keywords:** Marketing Mix, Brand Management, Customer Relationship Management, New Product Performance, Capability, Complementarity

#### Introduction

Recent research shows the continued interest in understanding the role of marketing capabilities in driving firms' market success and financial performance (Morgan et al., 2009, Murray et al., 2011). The importance of marketing capabilities can be seen in the arguments of Murray et al. (2011) and others who contend that the firm's market knowledge (often couched in terms of knowledge about customer needs, competitor actions, and market trends) have only potential value. The deployment of appropriate marketing capabilities is what provides the capacity to transform market knowledge into market success and superior financial performance-outcomes (Murray et al., 2011, Ngo and O'Cass, 2012). Marketing capabilities are developed when the marketing knowledge and skills of employees are combined and applied to perform specific marketing activities (Grant, 1996, Orr et al., 2011, Heirati et al., 2012). In this sense, market-oriented behaviors such as market knowledge generation and its dissemination act as the firms' market sensing ability that provide the foundation to drive organizational responsiveness (Hult et al., 2005) through the development of unique marketing capabilities (Murray et al., 2011, Ngo and O'Cass, 2012). As such, market oriented firms are those that are better in transforming knowledge of the market into knowledge of what to do and how to do it (i.e., which capability to develop and deploy that enacts the market knowledge) (Heirati et al., 2012, Ngo and O'Cass, 2012).

Although the importance of market-oriented behaviors in providing the foundation for developing marketing capabilities is well accepted (Murray *et al.*, 2011, Ngo and O'Cass, 2012), managers face specific challenges in identifying which forms of marketing capabilities should be developed and which ones are less important in driving organizational responsiveness to achieve market success and financial performance. In this sense, there is a need to better understand the extent that the deployment of different forms of marketing

capabilities in a complementary fashion impacts specific outcomes for firms (Morgan *et al.*, 2009, Vorhies *et al.*, 2009).

The opportunity to provide a deeper understanding of the extent that market-oriented firms develop and deploy different forms of marketing capabilities in a complementary fashion in response to their acquired market knowledge provides the foundation for this study. The focus here is on marketing mix capability (i.e., pricing, promotion, sales, distribution, and market research) and customer-focused capabilities, especially brand management and customer relationship management capabilities, as two forms of marketing capabilities (Srivastava *et al.*, 1998, Ambler *et al.*, 2002, Morgan, 2011). Drawing on Griffin and Hauser (1992), Moorman (1995) and Citrin et al. (2007), we measure the outcome of organizational responsiveness in the form of new product performance. Building on Ketchen et al. (2007) and Ngo and O'Cass (2012), we develop a framework and show the extent that the deployment and complementarity of marketing mix and customer-focused capabilities mediate the relationship between market orientation (MO) and new product performance. This study advances the current marketing literature in three important ways.

First, this study advances the literature by examining the impact of marketing mix and customer-focused capabilities on new product performance. Although the effect of marketing mix and customer-focused capabilities on firm performance (i.e., financial performance) is well documented (e.g., Krasnikov and Jayachandran, 2008, Morgan *et al.*, 2009), few studies explore the deployment of these specific marketing capabilities to enhance a firm's new product performance (NPP). NPP represents the extent that a new product that is launched over the last one year achieves market success (i.e., sales growth, market share, profitability) within a target market (Langerak *et al.*, 2004). We select NPP as the focal outcome of marketing capabilities, because (a) it represents the outcomes of the firm's effort to respond to market changes and competitors' actions in today's fast-paced and fiercely competitive

world (Moorman, 1995, Rodríguez-Pinto *et al.*, 2011), (b) it has been suggested as one of the most important drivers of the firm's survival and success (Langerak *et al.*, 2004), and (c) measuring the effect of specific marketing capabilities with respect to a single new product is more effective than the ultimate firm performance (Moorman and Slotegraaf, 1999). The underlying reason is that firm performance is a multifaceted construct that might be affected by the performance of different products or multiple functional activities (i.e., R&D, manufacturing) at the same time (Devinney *et al.*, 2010).

Second, this study advances the literature by examining the extent that the complementarity between marketing mix and customer-focused capabilities enhances NPP. The literature on the resource-based theory (RBV) of the firm highlights capability complementarity as a key factor leading to superior NPP (Moorman and Slotegraaf, 1999, Song *et al.*, 2005). However, the attention devoted to the performance-implications of the complementarity between different forms of marketing capabilities has received little attention (Vorhies *et al.*, 2009). Specifically, the marketing literature is almost silent about the role of the complementarity between marketing mix and customer-focused capabilities in the context of NPP. In contrast to many existing studies, our study is the first to model the roles of complementarity between MO and specific NPP.

Third, this study advances the literature by extending theory into new contexts. Much of the work investigating the role of marketing capabilities has been conducted in advanced Western and Asian economies (i.e. US, Japan, China). Given the growing importance of the Middle-East in the global economy (Ralston *et al.*, 2011), understanding the role of different forms of marketing capabilities in the commercialization of new products in the Middle-East region is important for both academics and practitioners. Firms operating in the Middle-East often have limited resources (i.e., skilled employees, funds) to market their new products and are faced with rapid economic development and an escalating level of competition (Mellahi *et al.*, 2011, Soltani and Wilkinson, 2012). In addition, most Middle-Eastern countries are transitioning towards market-base systems (Soltani and Wilkinson, 2012) and the level of investment and product launches by multinational companies in these countries has significantly increased (Bozer, 2011). Therefore, deciding which forms of marketing capabilities to develop and deploy is a necessary precondition to achieve superior NPP.

#### **Theoretical framework and hypotheses**

Successful marketing of new products is widely recognized as a critical determinant of survival, growth, and the ultimate financial performance of firms (Moorman and Slotegraaf, 1999, Langerak et al., 2004, Cooper, 2011). Much of the research seeking to understand the impact of marketing on NPP is theoretically embedded in the RBV of the firm (e.g., Moorman and Slotegraaf, 1999, Song et al., 2005, Harmancioglu et al., 2009). RBV is underpinned by the view that the heterogeneity in resources, routines and capabilities among firms is a key to unlocking NPPs differences (Langerak et al., 2004, Harmancioglu et al., 2009). Resources are tangible and intangible assets (i.e., physical, financial, human, knowledge) that can be used as inputs to organizational activities (Crook et al., 2008). Routines are recognizable and repetitive patterns of processes that provide the capacity to translate the firm's resources into specific actions (Felin et al., 2012). Actions here refer to steps in a process of accomplishing a specific task like responding to internal or external stimuli (i.e., take orders from customers) (Miller et al., 2012). A capability represents a higher-order routine or a bundle of interrelated routines that provide the capacity to deploy resources to perform a specific task (Felin et al., 2012). Therefore, organizational resources cannot affect NPP, unless appropriate capabilities are developed and deployed to translate the firm's resources into specific actions (Morgan et al., 2003, Vorhies et al., 2011).

In this study, marketing capabilities represent a bundle of interrelated routines that provide the capacity to engage in specific marketing activities and respond to market knowledge (Morgan et al., 2003, Murray et al., 2011, Ngo and O'Cass, 2012). Marketing capabilities are formed where a group of employees (i.e. a business unit or a department) integrate and apply their knowledge and skills to perform a specific task (Grant, 1996, Felin et al., 2012, Miller et al., 2012). Therefore, the integration and crystallization of market knowledge among employees within a firm are what form the foundation for building marketing capabilities (Morgan et al., 2003, Murray et al., 2011, Vorhies et al., 2011). In this sense, firms with greater capacity to generate market knowledge and disseminate it among their employees should be better able to develop superior marketing capabilities to perform marketing activities (Vorhies et al., 2011). On this issue, market orientation (MO) has been identified as the set of organizational-wide behaviors that enables a firm to generate and disseminate market knowledge among its employees (Hult et al., 2005, Citrin et al., 2007). Therefore, MO acts as the market sensing ability that provide market knowledge that permits recognition of market dynamism and the knowledge required to develop and deploy specific marketing capabilities (Murray et al., 2011, Ngo and O'Cass, 2012). In this sense, marketing capabilities act as the responsive actions that provide the capacity to respond to market knowledge and serve customer needs. Marketing capabilities are what Ketchen et al. (2007: 962) referred to as the missing strategic actions (or responsiveness) in the link between MO and firm performance (i.e., profit).

As shown in Figure 1, we develop a theoretical framework built on RBV theory and specifically premised on the work of Ketchen et al. (2007) and Ngo and O'Cass (2012) to articulate the extent that marketing mix capability and two forms of customer-focused capabilities (brand management and customer relationship management) mediate the relationship between MO and NPP.

Insert Figure 1 here

Marketing mix capability represents the firm's capacity to link its new products to customers (Moorman and Rust, 1999). Marketing mix capability encompasses a bundle of interrelated routines firms deploy to engage in specific marketing activities such as pricing, selling, promotion (or advertising), distribution, and new product launch (Vorhies et al., 2009). Specifically, pricing, selling, and distribution encompass the processes by which the firm acquires customer orders and delivers new products to customers (Vorhies and Morgan, 2005, Morgan, 2011). Promotion and new product launch represent the firm's ability to increase customer awareness about the benefits of a new product, remind current users of a new product about its features and availability, encourage customers to purchase a new product, and test a new product in a specific market (Langerak et al., 2004, Morgan, 2011). Overall, marketing mix routines provide the capacity to respond to market knowledge by building an effective link between the firm's new products and customers. Since marketing mix capability is formed when individuals (i.e., managers, employees) integrate and apply their knowledge and skills to link a new product to customers, firms with a strong MO are more likely to develop superior marketing capabilities to drive NPP (Murray et al., 2011, Heirati et al., 2012, Ngo and O'Cass, 2012). Therefore, the deployment of marketing mix capability mediates the effect of MO on NPP. Thus,

H1: The effect of market orientation on new product performance is mediated by marketing mix capability.

Customer-focused capabilities represent the firm's capacity to increase customer value (Srivastava *et al.*, 1998, Vorhies *et al.*, 2011). The literature identifies two customer-focused capabilities, brand management and customer relationship management (Srivastava

et al., 1998, Ambler et al., 2002, Vorhies et al., 2011). Brand management capability denotes the firm's capacity to build and maintain strong brands in customers' minds (Ambler et al., 2002, Morgan et al., 2009). Brand management capability encompasses a bundle of interrelated routines firms deploy to establish desired brand association in customers' minds, maintain a positive brand image relative to competitors, and enhance the level of brand awareness in a specific market (Morgan et al., 2009). A strong brand is more than just a product; it is something that people want to be part of and share (Granot et al., 2010). A strong brand consists of both rational and emotional attributes (or benefits) that differentiate a new product in the customers' mind (Ambler et al., 2002, Glynn, 2012). Brand management capability significantly impacts consumer decision-making, especially for new products with complex and novel attributes and benefits that are hard to comprehend by customers (i.e., complex industrial products) (Glynn, 2012). In this sense, a strong brand decreases customer uncertainty and promotes customer willingness to accept a new product (Netemeyer et al., 2004, Hooley et al., 2005, Huang and Sarigöllü, 2012).

Customer relationship management (CRM) capability denotes the firm's capacity to build and maintain beneficial relationships with target customers (Boulding *et al.*, 2005). CRM capability encompasses a bundle of interrelated routines firms deploy to identify attractive customers, build relationships with attractive customers, and enhance the quality of those relationships (Morgan *et al.*, 2009). CRM capability places more emphasis on the development of strong relationships with current customers than the attraction of new customers (Ambler *et al.*, 2002). In particular, the pivotal role of CRM capability is to enhance customer loyalty and retention (Boulding *et al.*, 2005, Ko *et al.*, 2008). The customer loyalty and retention are what promote customer willingness to accept the firm's new products and provide the opportunity of marketing of new products through add-on selling and cross-selling (Ko *et al.*, 2008, Richards and Jones, 2008). In addition, CRM capability enables a firm to segment its customers by their profitability and focus on customers who have a higher potential for future profit. Therefore, CRM capability enhances the firm's capacity to link a new product to profitable (or attractive) target customers (Ryals, 2005).

To this end, both brand management and CRM capabilities provide the capacity to respond to market knowledge by building and maintaining a strong brand and high quality relationships with attractive customers, respectively. Given that these capabilities are formed when individuals (i.e., managers, employees) integrate and apply their knowledge and skills to increase customer value (Orr *et al.*, 2011, Heirati *et al.*, 2012, O'Cass and Ngo, 2012), firms with a strong MO are more likely to develop brand management and CRM capabilities in their efforts to drive NPP. Therefore, the deployment of brand management and CRM capabilities mediate the effect of MO on NPP. Thus,

H2: The effect of market orientation on new product performance is mediated by (a) brand management capability and (b) CRM capability.

Beyond the independent mediating effects of marketing mix and customer-focused capabilities, we are also interested in the extent that the complementarity between these marketing capabilities mediates the relationship between MO and NPP. Complementarity represents the ability of one capability to reinforce the impact of another capability (Teece *et al.*, 1997). According to Milogram and Roberts (1995), two capabilities are complementary when the marginal benefits gained from one capability increases with the contribution of another capability and *vice versa* (see also Moorman and Slotegraaf, 1999). Therefore, the benefits gained from two capabilities are greater than that of each capability independently, when those capabilities complement each other (Moorman and Slotegraaf, 1999). The literature also shows that the complementarity (or combination) of marketing capabilities promotes the firm's effectiveness and/or efficiency to deploy its market knowledge (Dutta *et al.*, 1999, Vorhies *et al.*, 2009) and limits competitors' imitation (Morgan *et al.*, 2009).

In this study, we believe that the complementarity between marketing mix and brand management capabilities mediates the relationship between MO and NPP by combining the independent mediational effects of these capabilities. Brand management capability seeks to differentiate a new product in customers' mind and attract new customers (Ambler *et al.*, 2002). Customers are more likely to purchase new products with strong brands over unbranded products (Glynn, 2012, Huang and Sarigöllü, 2012). Therefore, brand management capability has the capacity to enhance the firm's effort in linking a new product to customers. The literature shows that marketing mix routines (i.e., promotions) have a greater impact on sales performance for firms with stronger capacity to build brand awareness (Slotegraaf and Pauwels, 2008). On the other hand, it has been acknowledged that marketing mix capability (advertising, distribution, and pricing) enhances the firm's capacity to enhance brand awareness, brand associations, and brand equity (Buil *et al.*, 2012, Huang and Sarigöllü, 2012). To this end, marketing mix and brand management capabilities are complementary, as the marginal benefits gained from one capability increases with the contribution of another one and *vice versa*. Thus,

H3a: The effect of market orientation on new product performance is positively mediated by the complementarity between marketing mix and brand management capabilities.

In addition, we contend that the complementarity between marketing mix and CRM capabilities mediates the relationship between MO and NPP by combining the independent mediational effects of these capabilities. The central focus of CRM capability is to build and maintain strong relationships with attractive (i.e., profitable) customers. Drawing on Ko et al. (2008), attracting new customers cost five times more than retaining existing customers, thus linking a new product to existing customers is more profitable than linking that new product

to new customers. CRM capability also enhances the efficiency of marketing mix activities and directs the firm's efforts toward linking its new products to right customers (i.e., attractive or profitable customers) (Ryals, 2005, Ko *et al.*, 2008). For example, Ryals (2005) shows that pricing activities have stronger influence on the profitability of firms that employ a selective customer retention and acquisition approach. On the other hand, the literature acknowledges marketing mix routines as drivers of customer satisfaction and customer retention (Richards and Jones, 2008, Morgan, 2011). Therefore, marketing mix capability enhances the firm's capacity to build and maintain stronger relationships with customers. To this end, marketing mix and CRM capabilities are complementary, as the marginal benefits gained from one increases with the contribution of another one and *vice versa*. Thus,

H3b: The effect of market orientation on new product performance is positively mediated by the complementarity between marketing mix and CRM capabilities.

#### Method

#### Data collection

We used questionnaire protocol as the primary means for data collection. Our focus devoted on a sample of senior managers from large B2B firms (over 200 full-time employees) across a variety of industries in the context of an emerging economy in the Middle-East, Iran. As noted before, much of the work investigating the role marketing capabilities has been conducted in advanced Western and Asian economies (i.e. US, Japan, China). Given the growing importance of Middle-East in the global economy (Ralston *et al.*, 2012, Soltani and Wilkinson, 2012), understanding the role of different forms of marketing capabilities in new product performance in the Middle-East region is worthy of investigation. Among the Middle-Eastern countries, we select Iran because it has been considered as one of the strongest and most industrialized economies in the Middle-East. Iran has over 40 major industry sectors (i.e. automotive, chemical, consumer durable), which makes it unique in the Middle-East (FinancialTimes, 2010). In addition, Iran's economy is forecasted to become the 12<sup>th</sup> largest in the world by purchasing power parity by 2015 (IMF, 2010).

The questionnaire was prepared in English and then translated into Persian following the conventional back-translation process suggested by Atuahene-Gima (2005). Drawing on De Luca and Atuahene-Gima (2007), the drop-and-collect technique was employed as the data collection technique. Using drop-and-collect technique is encouraged in emerging economies where interpersonal interactions are preferred as modes of information exchange and the unreliable nature of postal systems is a problem (Ellis, 2005, De Luca and Atuahene-Gima, 2007). We pre-tested the instruments using individual interviews with 20 managers who had at least three years of business experience in Iran to examine understandability of the survey questions and face validity of the constructs.

From a directory of 2000 large manufacturing firms supplied by the Industrial Management Institution of Iran, we randomly selected 800 firms who had a record of introducing a new product within the previous one year. Of the chosen firms, 538 firms agreed to participate. We distributed questionnaires to 538 large B2B firms and received 169 usable questionnaires. The average number of full-time employees in firms was 645 and the average age of firms was 25 years. Within the 29.6% of respondents were in positions such as CEOs, managing directors, or Vice-CEOs, 32.6% marketing manager, 23.8% product manager, and 25% others (i.e., sales manager, R&D manager, and consultants). Of the firms studied 63.9% developed and/or marketed their products through a partnership (i.e., Joint Venture) or under license with European (i.e., Germany, France) and Asian (i.e., South Korea, Japan) firms, and 35.1% through their business activity. The firms came from arrange industry sectors: 20% industrial machinery and process equipment, 15% automotive, 12% food, 11% consumer

durable, 9% chemical, 5% electronic equipment, 5% IT and telecommunication, 3% pharmaceutical and 20% others.

#### Measures

We measured MO using six items from Hult et al. (2005) and Zhou et al. (2008) which reflect the behavioral view of MO. The respondents indicated the extent to which they agreed or disagreed with six statements about the firm's market-oriented behaviors, specifically behaviors related to the generation and dissemination of market knowledge, using 7-point scales with anchors "strongly disagree" and "strongly agree". We measured marketing mix capability using five items adopted from Vorhies et al. (2009) and Vorhies and Morgan (2005). Building on Vorhies et al. (2011), we measured brand management capability and CRM using four and three items, respectively. The respondents were asked to indicate the degree of their firm's engagement in marketing mix, brand management, and CRM activities with respect to the selected new product using 7-point scales with anchors "much worse than competitors" and "much better than competitors". We gauged NPP using five items adopted from Langerak et al. (2004). We used subjective measurement scales to measure NPP, because objective measures were almost impossible to obtain because of confidentiality and historically subjective measures have been shown to be correlated to objective measures of product performance (Langerak et al., 2004). The instruction asked respondents to rate the performance of a new product, which has been lunched within the previous one year, in relation to the goals set by the firm over the past year in terms of revenue, sales growth, market share, return on investment and profitability using 7-point scales with anchors "strongly disagree" and "strongly agree".

Drawing on the previous literature, we considered market turbulence, market potential, branding mode, and firm size as the control variables. Market turbulence represents the speed of change in customer needs, preferences and competitor actions (De Luca and Atuahene-Gima, 2007). We measured market turbulence using two items adopted form De Luca and Atuahene-Gima (2007). Market potential represents the extent that the market (or potential customers) for a particular product that is growing quickly (Song and Parry, 1996). We measured market potential using two items adopted from Song and Parry (1996). Branding mode represents the extent that a firm develops a new brand or uses an existing brand to introduce its new product to the market. Finally, firm size presents the logarithm of the number of full-time employees. The control variables (except branding mode and firm size) were answered using 7-point scales with anchors "*strongly disagree*" and "*strongly agree*". All constructs' items are outlined in the Table 1.

Insert Table 1 here

## Analysis and results

We employed partial least squares (PLS) as the estimation approach for several reasons. First, PLS is suggested for predictive (i.e., theory development) research rather than confirmatory studies (Hair *et al.*, 2011). Given the predictive nature of this study regarding the role marketing mix and customer-focused capabilities and their complementarity in driving NPP, PLS is most appropriate. Second, PLS considers all path coefficients simultaneously, thus allowing analysis of direct and indirect relationships. Therefore, PLS is an appropriate approach for complex models embedded with indirect (or mediational) relationships (Sattler *et al.*, 2010, Siren *et al.*, 2012), as well as being used in research with similar sample sizes that obtained in this study (Sattler *et al.*, 2010, Ngo and O'Cass, 2012).

## Common method bias

Single source of information can increase the probability of common method bias, therefore we examined common method bias using the Harmon's single-factor and marker variable techniques suggested by Lindell and Whitney (2001) and Malhotra, Kim, and Patil (2006). First, a Harmon's single-factor test was conducted, which reveals that no single factor accounted for the majority of the variance (the first factor accounted for 32.33% of the explained variance). Second, we used industry sector as a marker variable to control for common method variance ( $r_{M}$ = .04, p= .42). The mean change in the correlations of the key constructs ( $r_{U}$  -  $r_{A}$ ) when partialling out the effect of  $r_{M}$  was 0.02, providing no evidence for common method bias. Further, we assessed informant's knowledge (i.e., quality) by asking informants to indicate the degree of knowledge they held about the issues being studied on a seven-point Likert-type scale ranging from "not at all" to "very much so". The mean scores for the informant's knowledge were 6.

#### Analysis of measurement model

As shown in Table 1, all measurement items have acceptable bootstrap critical ratios (>1.96) with loadings greater than the cut-off value of 0.50 suggested by Hulland (1999), indicating satisfactory individual item reliabilities. Further, all constructs have acceptable levels of reliability, with the composite reliability coefficients ranging from 0.78 and 0.94, greater than the cut-off value of 0.70 recommended by Nunnally (1978). As shown in Table 2, convergent validity is evident as AVE values for all constructs are uniformly acceptable, ranging from 0.52 to 0.84 greater than the cut-off value of 0.50 recommended Fornell and Larcker (1981). In addition, the square root of the AVE values (.52 to .84) consistently greater than all corresponding correlations (.08 to .51), indicating the satisfactory discriminant validity (Fornell and Larcker, 1981). Finally, we followed Cohen et al. (2002) and assessed the possibility of multicollinearity among all constructs. The maximum variance of inflation

factor score was 1.62 lower than the cut-off value of 5 recommended by O'Brien (2007). Therefore, we conclude multicollinearity was not evident.

Insert Table 2 here

## Test of hypotheses

This study tests the mediational effects of marketing capabilities (marketing mix, brand management and CRM capabilities) following the approach suggested by James and Brett (1984, Kenny *et al.*, 1998, Siren *et al.*, 2012). Following this approach, the mediation model was tested with a path from the independent variable (MO) to the mediator(s) and from the mediator(s) to the dependent variable (NPP). The mediation effect occurs when the relationship between independent variable-mediator and mediator-dependent variable is significant.

Hypotheses 1 and 2 were examined to test the mediational effects of marketing mix and customer-focused (brand management and CRM) capabilities between MO and NPP. As shown in Table 3, MO significantly influenced marketing mix capability (MMC) ( $\beta$ = .48, tvalue= 7.47), brand management capability (BMC) ( $\beta$ = .55, t-value= 7.35), and CRM capability ( $\beta$ = .23, t-value= 2.91). Further, the relationships between NPP and MMC ( $\beta$ = .20, t-value= 2.09), BMC ( $\beta$ = .32, t-value= 3.45), and CRM ( $\beta$ = .18, t-value= 1.97) were statistically significant. However, MO had an insignificant direct effect on NPP ( $\beta$ = .03, tvalue=. 39, p > .05). Therefore, the results indicate that both MMC, BMC, and CRM fully mediate the relationship between MO and NPP, supporting hypotheses 1 and 2. We also tested the mediational effects of MMC, BMC, and CRM between MO and NPP using Sobel (Sobel, 1982) and bootstrapping (Preacher and Hayes, 2004) tests. The Sobel's test reveals that all mediators significantly mediate the relationship between MO and NPP. The bootstrapping's test shows that the confidence intervals for all indirect effects do not include zero values. Therefore, both Sobel and bootstrapping tests support hypotheses 1 and 2. Since PLS does not provide statistics to measure overall model fit, the variance explained by the model can be used to assess nomological validity (Hulland, 1999). In the model tested 42% of the variance was explained in NPP. Regarding control variables, only market potential positively influenced NPP.

Insert Table 3 here

Hypothesis 3 was examined to test the extent that the complementarity of MMC and customer-focused capabilities mediates the relationship between MO and NPP. Following Milogram and Roberts (1995), the benefits gained from one capability should be enhanced by another when the two capabilities are complementary (see also Moorman and Slotegraaf, 1999). Therefore, MMC and customer-focused capabilities are complementary when: (a) the magnitude of relationships between MO-MMC- NPP is enhanced by BMC and CRM; and (b) the magnitude of relationships between MO-BMC- NPP and MO-CRM-NPP are enhanced by MMC. We followed the approach suggested by Preacher and Hayes (2007) to examine complementarity.

As shown in Table 4 (Panel A), the indirect effect of the MO on NPP through MMC increased with the increasing level of BMC (from .05 to .09). Further, the confidence interval for the conditional indirect effect was entirely above zero among all levels of BMC. In addition, the indirect effect of the MO on NPP through BMC increased with the increasing level of MMC (from .12 to .17), and the confidence interval for the conditional indirect effect was entirely above zero among all levels indicate that MMC and BMC are complementarity, supporting hypothesis 3a. Table 4 (Panel B) reveals that the indirect effect of the MO on NPP through MMC increased with the increasing level of CRM

(from .07 to .13), and the confidence interval for the conditional indirect effect was entirely above zero among all levels of CRM. On the other hand, the indirect effect of the MO on NPP through CRM increased with the increasing level of MMC (from .01 to .04), however the confidence interval for the conditional indirect effects at all levels of MMC included zero. This implies that only the magnitude of relationships between MO-MMC- NPP is enhanced by CRM. Thus, MMC and CRM cannot be described as fully complementarity, rejecting hypothesis 3b.

To gain further insight about the role of customer-focused capabilities, we examined the extent that the strength of relationships between MO-MMC-NPP varies with the simultaneous contribution of BMC and CRM. As shown in Table 4 (Panel C), when the level of BMC was low, the indirect effect of the MO on NPP through MMC increased with the increasing level of CRM, and the confidence interval for the conditional indirect effect was entirely above zero among all levels of CRM. When the level of BMC was medium and high the indirect effect of the MO on NPP through MMC increased with the increasing level of CRM, and the confidence interval for the conditional indirect effect was entirely above zero except for low levels of CRM (-1 SD= 3.70). Therefore, the results reveal that the BMC and CRM synchronously enhance the magnitude of relationships between MO-MMC-NPP, when a firm synchronously pursues relatively high levels of these two customer-focused capabilities.

Insert Table 4 here

## **Discussion and conclusions**

Our theory and analysis advances our understanding about the extent that the deployment and complementarity of specific marketing capabilities provide the capacity to transform the firm's market knowledge into effective responsive actions to achieve new product success. The results of our study suggest two main findings. First, firms with strong MO are better in the development and deployment of marketing mix, brand management and CRM capabilities to drive NPP. Second, the synchronous deployment of marketing mix, brand management and CRM capabilities in a complementarity fashion enhances the firm's capacity to acheive NPP more than deploying each capability in isolation. Our study advances the current marketing literature in two important ways.

First, although possession of a strong MO enhances organizational responsiveness (Moorman, 1995, Hult *et al.*, 2005, Citrin *et al.*, 2007), there is limited understanding of the capabilities required to transform MO into specific responsive actions (Ketchen *et al.*, 2007, Ngo and O'Cass, 2012), which in turn drive NPP. The findings address this limitation and show that MO acts as the market sensing ability that provide (a) a knowledge structure that permits the recognition of market dynamism and (b) a knowledge base to identify which forms of routines and actions are required to respond to market dynamism. Instead, marketing capabilities act as the responsiveness actions that provide the capacity to respond to market knowledge and serve customer needs. Therefore, MO permits managers and employees of the firm to understand which forms of marketing capabilities should be developed and which ones are no longer important to drive NPP. In contrast to many existing studies, this study is the first to examine the role of both marketing mix and customer-focused capabilities in mediating the relationship between MO and NPP.

Second, given the growing interest in understanding the role of marketing mix and customer-focused capabilities in driving NPP, the attention devoted to understanding the role of complementarity between these capabilities has not been significant. Our study extends studies on capability complementarity (e.g., Moorman and Slotegraaf, 1999, Morgan *et al.*, 2009, Vorhies *et al.*, 2009, Ngo and O'Cass, 2012) by showing that the complementarity of

marketing mix, brand management, and CRM capabilities enhances the firm's capacity to transform market knowledge to NPP more than deploying each capability in isolation. Specifically, the results show that marketing mix and brand management capabilities are complementarity, indicating the importance of alignment between marketing mix routines and routines that provide the capacity to differentiate a new product and attract new customers. However, the findings indicate that the effect of complementarity of marketing mix and CRM capabilities in the relationship between MO and NPP was not significant. Although the results show that marketing mix and CRM capabilities appear not to be complementarity, we found that they complemented their mediational effects in the presence of brand management capability. This implies the importance of the synchronous deployment of all of these marketing capabilities to transform market knowledge to superior NPP effectively. Therefore, the synchronous attraction of new customer and retainment of existing customers is a necessary condition to link a new product to customers successfully.

In addition to above mentioned contributions, we extend the literature on MO, marketing capabilities, and NPP into new contexts. Our study articulates the extent that the deployment and complementarity of specific forms of marketing capabilities enable B2B firms operating in the Middle-East region to achieve superior NPP. Specifically, our study shows that deployment of brand management capability has a stronger effect on NPP compared to marketing mix and CRM capabilities. This result counters research conducted in advanced Western (e.g., Vorhies and Morgan, 2005) and Asian (e.g., Murray *et al.*, 2011) economies which suggests pricing, selling, and/or promotion components of marketing mix capability have stronger effects on firms market and financial performance compared to other types of marketing capabilities. However, the results of our study are consistent with literature that suggests complementarity between different forms of organizational capabilities enhance the capacity to drive NPP more than deploying a capability in isolation

(e.g., Moorman and Slotegraaf, 1999, Morgan *et al.*, 2009, Vorhies *et al.*, 2009, Ngo and O'Cass, 2012).

#### **Managerial implications**

With increasing globalization and intensifying competition, the ability to market successful new products represents the outcomes of the firm's effort to respond to market changes and competitors' actions. Given the economic growth of emerging economies in the Middle-East is evident, understanding the extent that new products compete together within emerging economies in the Middle-East remains limited. A review of the foreign direct investment growth in the Middle-East by Mellahi et al. (2011) highlights that firms (i.e., domestic and multinationals) have given greater attention to undertaking their operations in Middle-Eastern countries and are attempting to penetrate these markets. This highlights a significant gap between academic and business views, especially with respect to antecedents of new product performance from marketing capability perspective. To this end, our study seeks to address this gap providing two important managerial implications for B2B firms. The following managerial implication can be important for firms operating within emerging economies in the Middle-East as well as international firms seeking to penetrate the Middle-East markets.

First, although managers have generally been advised to be market-oriented, our study shows that MO per se is not enough to achieve superior NPP. Our study underscores the importance of paying more attention to the specific marketing capabilities that enable a firm to act on market knowledge and enhance the market success of its new products. Since most firms have limited resources (i.e., employee, financial assets, market knowledge), managers should identify which type of market capabilities is more beneficial in their efforts to market a new product. The results of this study reveal that the connection between MO and NPP through brand management capability is more beneficial than marketing mix and CRM capabilities. This highlights that firms operating in the Middle-Eastern countries should pay more attention to differentiating their new products through brand management activities to link their new product to customers effectively. Second, managers should pay more attention to developing and deploying specific marketing capabilities in a complementarity fashion. Our study shows that managing a balance between the deployment of marketing mix, brand management, and CRM capabilities is a necessary condition to successfully link a new product to both new and existing customers. Managers are advised to facilitate interactions among different units (i.e., departments, teams) specialized in marketing mix, brand management, and CRM activities. The complementarity and application of knowledge and skills of individuals (i.e., mid-level managers, employees) across different functional boundaries are what enhance the firm's capacity to respond to market knowledge effectively and achieve superior performance with its new product.

#### Limitations and future research

While our study contains a number of limitations, such limitations offer avenues for future research. First, we examined our hypotheses with one-year lagged new product performance data. Thus, our ability to empirically assess the sustainability of the marketing capabilities effects on a new product's performance over time is limited. Future research using a longitudinal design may help in evaluating the longer-term effects of diffreent marketing capabilities on NPP. Second, our study shows that complementarity between different types of marketing capabilities enhance the capacity to transform market knowledge to superior NPP. However, we did not examine any of the underlying internal processes such as cross-functional collaboration that potentially allow a firm to achieve complementarity between as broader array of marketing capabilities. Third, our study shows that the potential of a market significantly influences the ultimate success of a firms' new products. This highlights that the

effect of different type marketing capabilities on new products can be contingent on specific environmental conditions such as a market potential. In particular, picking up on this point, future research could extend this study by seeking to answer the following questions: To what extent do marketing capabilities enhance and sustain the performance of a new product as it moves through the product's life-cycle? Further, what organizational processes allows a firm to achieve complementarity between different types of marketing capabilities? What organizational and/or environmental characteristics reinforce or impede the effect of marketing capabilities on a new products' performance? The answers to these questions are important for both scholars and managers.

**Figure 1** – Theoretical Framework

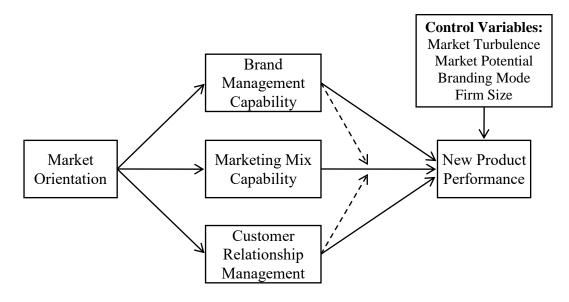


Table 1 – Constructs	and Manifest Variables
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Constructs and Manifest Variables	Loading	T-value
Market Orientation (AVE=0.61 CR= 0.93) - In our firm:		
we detect changes in our customers' product preference quickly.	.82	38.41
we detect fundamental shifts in our industry (i.e., competition, technology, regulation) promptly.	.78	25.58
we periodically review the likely effect of changes in our business environment (e.g., regulation) or customers.	n .80	27.92
when something important happens to a major customer or market, the whole organization knows about it in a short period.	s .82	35.37
customer suggestions and comments are disseminated at all levels in the organization on a regular basis.	r .75	18.96
we pay close attention to the changes in our customers' needs.	.68	14.21
<b>Marketing Mix Capability</b> ( $AVE=0.52$ $CR=0.87$ ) - Our firm performs the following activities effectively standards:	relative to its	s industry's
advertising and/or promotion	.75	15.26
sales	.70	10.03
pricing	.71	10.13
new product launch management	.72	15.25
distribution	.73	17.84
<b>Brand Management Capability</b> ( $AVE=0.66 CR=0.89$ ) - Our firm performs the following activities e industry's standards:	ffectively rel	ative to its
brand image management	.75	18.15
establishing desired brand associations in customers' minds	.81	27.82
maintaining a positive brand image relative to competitors	.84	28.47
achieving high levels of brand awareness in a specific market	.85	33.74
<b>Customer Relationship Management Capability</b> (AVE=0.63 CR= 0.84) - Our firm performs effectively relative to its industry's standards:	the followin	g activitie
identifying and targeting attractive customers	.76	19.85
building relationships with attractive customers	.79	13.16
enhancing the quality of relationships with attractive customers	.83	14.20
<b>New Product Performance</b> (AVE=0.62 CR= 0.89) - In relation to goals set, this product has:		
met revenue goals.	.86	34.47
met sales growth goals.	.77	20.16
met market share goals.	.70	13.78
met return on investment goals.	.82	21.59
met profitability goals.	.77	22.90
Market Turbulence (AVE=0.84 CR= 0.94) - In our firm's business environment:		
customer needs and product preferences changed rapidly.	.95	4.19
customer product demands and preferences were uncertain.	.91	3.36
it was difficult to predict changes in customer needs and preferences.	.87	4.04
Market Potential (AVE=0.78 CR= 0.78) - In this product's target market:		
there were many potential customers for this product as opposed to one or a few customers.	.81	6.21
customers had a great need for this type of products.	.79	6.87

	AVE	CR	01	02	03	04	05	06	07
01 Market orientation	.61	.93	.78						
02 Marketing mix capability	.52	.87	.48	.72					
03 Brand management capability	.66	.89	.45	.51	.81				
04 Customer relationship management	.63	.84	.22	.35	.41	.79			
<b>05</b> New product performance	.62	.89	.38	.47	.45	.40	.78		
<b>06</b> Market turbulence	.84	.94	.41	.31	.28	.08	.19	.91	
07 Market potential	.78	.78	.27	.24	.22	.20	.30	.11	.88
Note: Diagonal entries show the square roots of	average v	ariance e	xtracted	, others	represe	nt corre	lation c	oefficien	ts.

# Table 2 – Latent Variable Correlations

	Endogenous variables							
Independent variables	MMC	BMC			CRM	NPP		
МО	.48 (7.47)	.5	5 (7.35)		.23 (2.91) .03 (			
MMC		.20 (2					(2.09)	
BMC		.32 (3.4					(3.45)	
CRM		.18 (1.97						
Market Turbulence						0	1 (.2)	
Market Potential						.16	(2.11)	
Branding Mode						09	(1.11)	
Firm Size						.04	(.87)	
R-square	.24	.31			.16		.42	
		Sobel test			Bootstrapping			
Mediation Effect	β	SE	t	р	SE	LL	UL	
MO→MMC→NPP	.10	.03	2.10	.03	.04	.01	.17	
MO→BMC→NPP	.16	.04	3.27	.00	.04	.06	.26	
MO→CRM→NPP	.08	.02	1.97	.05	.02	.01	.10	

# **Table 3** – Mediation Test for Hypotheses 1 and 2

Notes: MO= Market orientation, MMC= Marketing mix capability, BMC= Brand management capability, CRM= Customer relationship management capability, NPP= new product performance

Conditional indirect effect	Moderator value	β	SE	LL	UL
	Panel A				
MO→MMC→NPP at values o	f BMC				
-1 SD	3.77	.05	.02	.01	.12
Mean	4.59	.07	.03	.01	.13
+1 SD	5.40	.09	.03	.01	.16
$MO \rightarrow BMC \rightarrow NPP$ at values of	f MMC				
-1 SD	3.07	.12	.04	.06	.24
Mean	3.90	.15	.04	.08	.24
+1 SD	4.74	.17	.05	.07	.26
	Panel B				
MO→MMC→NPP at values o	f CRM				
-1 SD	3.70	.07	.03	.02	.15
Mean	4.49	.10	.04	.03	.19
+1 SD	5.28	.13	.06	.03	.29
MO→CRM→NPP at values of	f MMC				
-1 SD	3.07	.01	.02	04	.07
Mean	3.90	.02	.02	01	.08
+1 SD	4.74	.04	.02	01	.12
	Panel C				
MO→MMC→NPP at values o	f BMC and CRM				
$\pm$ 1 SD of BMC	$\pm$ 1 SD of CRM				
3.77	3.70	.06	.02	.02	.14
3.77	4.49	.11	.04	.03	.23
3.77	5.28	.16	.08	.04	.37
4.59	3.70	.04	.03	01	.13
4.59	4.49	.09	.04	.03	.18
4.59	5.28	.14	.06	.04	.31
5.40	3.70	.02	.05	07	.14
5.40	4.49	.07	.04	.01	.16
5.40	5.28	.12	.06	.03	.26

# Table 4 – Moderated-Mediation Test for Hypothesis 3

*Notes: MO*= *Market orientation, MMC*= *Marketing mix capability, BMC*= *Brand management capability, CRM*= *Customer relationship management capability, NPP*= *new product performance* 

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