

MODERATING ROLE OF E-MARKETING ON THE CONSEQUENCES OF MARKET ORIENTATION IN IRANIAN FIRMS

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Abstract:

In the modern world use of technology in the marketing activities of all types of organizations have increased, it is important to know the extent to which electronic marketing moderates the impact of market orientation on firm marketing competencies which are, in turn, related to firm performance. Drawing on the strategic management and information technology literature, the author designed a survey to ascertain how e-marketing moderates market orientation from the marketing competencies relationship on one hand to the marketing competencies and firm performance relationship on the other. One hundred manufacturing owner-managers in Iran were investigated. The results reveal that e-marketing translates more into firm performance when supported by organizational culture and behavioral dispositions like market orientation, and that e-marketing also moderates the relationship between marketing competencies and firm performance. The author also discusses the managerial and public policy implications of the findings. Overall, there seemed to be more emphasis on the production strategy factors than marketing factors as a means to gaining competitive advantage.

Keywords: E-marketing, market orientation, competitive intensity, marketing competencies, firm performance.

1. Introduction

Marketing professionals consider the 21st century to be a distinctive period because of the electronification of traditional marketing practices. Since the 1960s, marketers have lived and worked through three distinct stages. The first was the Computers age (1960-1990), with its rapid expansion of computing power fueled mainly by development of the microchip. In this stage, marketing managers were able to develop and use customer databases and other vital databases to enhance marketing practices (Leo, 2002). The second stage was the Internet age (1990-2000), when use of the Internet became a regular part of the daily work experience of marketers. The widespread use of the Internet, (2000-2008), led to the third stage; namely, the "dot.com bubble"

(Kirsner, 2001). The "dot.com bubble" was a breeding ground for new business models and novel marketing concepts (Abrahams, 2002). Statistics of Internet World Stats (<http://www.internetworldstats.com/me/ir.htm>) indicate that the number of Internet users in Iran increased from 250,000 in the year 2000 to 36.5 million in 2011. Increasing numbers of businesses now handle commercial exchanges of goods, services, information, and ideas through technology. Smart cards, debit cards, ATM cards, point-of-sale technology, scratch cards, and similar technology are highly visible in the Iranian business environment. Electronic marketing is more than just marketing carried out over the Internet. It involves the effective use of technology in all its forms, in such a manner that it plays a

supporting role, which is defined by business and marketing needs. The most important piece of technology in electronic marketing is probably not in the Internet; rather, it is more likely to be the database that holds valuable information about this most critical resource that a marketer needs (Abrahams, 2002). Technology and the availability of data continually increase during changes in organization-customer interaction. In 2011, Iran had a population of 75.2 million. In 2011, a total of 36.5 million, or approximately 48.5% of the population, were Internet users. Generally, electrification (Electrification originally referred to the build out of the electrical generating and distribution systems) of business enterprises has been hindered largely by the country's underdeveloped and unreliable fixed line infrastructure, but this is changing with the intensification of competition and emergence of new technologies. More than 600 ISPs have been licensed in Iran, as well as a number of data carriers and Internet exchange and gateway operators, making it possible for selected organizations to electrify their marketing practices.

E-marketing is gradually gaining prominence as a tool for competition in Iran. Most banks now offer e-banking transactions online so that customers can patronize them from the convenience of their homes or offices. The growth and acceptance of credit/debit cards and automated teller machines (ATMs) are also testimonials to the country's fledging e-marketing. Today, with e-payment solution can pay, withdraw, or transfer funds anywhere in the country, as well as make purchases with their e-cards. Shopping online has also gained acceptance with more Iranians, who recognize the importance of buying from abroad and who realize that it is no longer necessary to go in person to shops to make their purchases. These changes have prompted

organizations to step up efforts to electrify their marketing operations to better satisfy customer needs. Despite the rapid integration of electrification in the marketing activities of Iranian firms and banks, no empirical research has focused on the potential moderating role of electronic marketing on the consequences of market orientation. Furthermore, no attempt has been made to relate marketing competencies to market orientation. This paper addresses these gaps in the literature. It focuses on the extent to which electronic marketing moderates the impact of market orientation on firm marketing competencies, which, in turn, are related to firm performance. The model that is developed is examined in the context of selected firms in the Iranian business environment. The paper is structured as follows. Section 2 presents the literature review. Section 3 discusses the research structure and hypothesis development. Study results are included in Section 4, followed by a discussion of findings and research implications (Section 5). Section 6 discusses managerial and public policy implications. Section 7 presents concluding remarks.

2. Literature Review

This section discusses the role of e-marketing, the relationship between market orientation and performance, and the moderating role of e-marketing, competitive intensity, marketing competencies, and their respective relationships.

2.1. Electronic Marketing

Electronic marketing changed the face of marketing through technology enabled observation, surveying and experimentation. Most firms now use at least one of the commercial online services for accessing general news information or for research on more specialized subjects. Tens of thousands of commercial databases are available worldwide, providing information on

business, technical, and scientific topics, company reports, broker reports, newspaper and journal articles, and patent documents. These online commercial and research information sources provide variety, up-to-date information, cost efficiency, and accessibility to far-reaching information. Technology-enabled observation in marketing research is highly objective because it records actual behavior, as opposed to what the researcher thinks is important. The recent resurgence in direct marketing has been enabled by the increased productivity and processing power of information technology, and marketing is taking advantage of this. E-mail is increasingly used to target consumers in Iran. In 2011, expenditures on Internet direct marketing had increased to nearly 48.5 % of the total direct marketing expenditure in Iran.

2.2. Market Orientation and Firm Performance

Market orientation, as a corporate culture, characterizes an organization's disposition to continuously deliver superior value to its customers (Slater and Narver, 1994). To create superior customer value entails an organization-wide commitment to continuous information-gathering and coordination of customers' needs, competitors' capabilities, and the provisions of other significant market agents and authorities (i.e., suppliers and regulators) (Slater and Narver, 1994, 1995). The eventual outcome, according to Kohli and Jaworski (1990), is an integrated effort by individuals and across departments within an organization, which, in turn, gives rise to superior organizational performance. Kohli and Jaworski (1990) define market orientation in terms of three dimensions:

1. The generation of market information about the needs of customers and about external environmental factors
2. The dissemination of such

information among organizational functions and implementation of strategies in response to the information

The major elements, in short, are continuous and systematic information-gathering regarding customers and competitors, cross-functional sharing of information, coordination of activities, and responsiveness to changing market needs (Day, 1994). Kirsner (2001) places heavy reliance on the critical role of information, the value of which is maximized when it is shared among all functions in an organization and is acted on in a coordinated manner. Narver and Slater (1990), however, advance three behavioral components of market orientation:

1. Customer orientation
2. Competitor orientation
3. Inter-functional coordination

Each of these components is concerned with intelligence generation and dissemination and with responsiveness to the collected information. Hence, the three core behavioral components are posited as being equally important in information value. In sum, market orientation scholars forward market-oriented corporate culture as prescriptive of superior customer value and firm performance. For this paper, Narver and Slater's (1990) scale is preferred for three reasons. First, it incorporates the essential aspects of Kohli and Jaworski's (1990) constructs of intelligence gathering, dissemination, and responsiveness, while assessing organizational cultural factors (Hooley, Greenley, et al., 2005; Ellis, 2006) Second, These researchers have noted that Kohli and Jaworski's (1990) constructs more accurately reflect marketing concept than market orientation. Third, some empirical studies, which attempt to develop parsimonious versions of a market orientation scale on the basis of a synthesis (using a factor analysis) of individual items from Narver and Slater

(1990), Kohli and Jaworski (1990), and other scales, find that the synthesized versions draw more items from Narver and Slater's instrument (Pelham, 2000).

A number of researchers have examined the link between market orientation and performance. Most of the studies suggest a positive relationship (Narver and Slater, 1990; Pelham, 2000; Ellis, 2006). Narver and Slater (1990) suggest that the logic of expecting a strong link between market orientation and performance is based on the concept of a sustainable competitive advantage. A few researchers report mixed results (Jaworski and Kohli, 1993; Han, Kim, and Strivastava, 1998). Research findings in Iran on the market orientation-market performance relationships imply that focal firms are better than their competitors in terms of their marketing competencies. However, none of the previous studies have explicitly focused on marketing competencies as an intermediate (endogenous) variable in linking market orientation and market performance.

2.3. Marketing Competencies and Firm Performance

Recent studies show that enterprises can increase their market competitiveness only by coordinating functional area competencies (Li, 2000; Hill and Jones, 2006). Capon, Jones and Smit (1990) argue that corporate profitability is closely correlated to market development competence. Leonidou, Katsikeas and Samiee (2002), propose a direct relationship between the determinants of market strategy and enterprise export competence. Transaction process and after sale service that meet customers' requirements have also been found to increase sales volume and to improve financial performance (Hill, 1994). The literature relevant to marketing and production also shows that the critical factor in corporate competence

development is to understand the customers' needs and provide products superior to the products of other competitors (Hill and Jones, 2006). The application of marketing strategy and marketing competence development establishes a powerful and fruitful basis for developing competitive advantages. The companies that undertake these tend to have superior performance in terms of profit, return on investment, sales, and market share. Hunger and Wheelen (2001) further suggest that functional strategy is engaged in developing competencies and providing companies or organizations with competitive advantages.

It has also been established that firms with superior marketing competencies (compared with competitors) are likely to be more successful; that is, they perform better (Day, 1994). The several dimensions identified as firms' marketing competencies include: product development skills, product quality, technical support, after-sales services, product line breadth, cost/price competitiveness, and customer relationship skills. For instance, Danneels (2002) finds that the performance of some firms increases with the level of marketing support for distributors and the degree of product adaptation. Day (1994) also emphasizes that a firm's capabilities and constraints have an important influence on its choice and implementation of strategies to translate marketing competencies into positive firm performance. However, performance varies with the perceptions and expectations of individual firms. The performance measurement of a firm has been described in terms of the extent to which a firm's economic and strategic objectives are achieved in the market place. Since essentially all firms regularly set and refine goals for their pursuits that are both strategic (e.g., market share, brand awareness) and economic (e.g., profits, sales, return on

investment), high performance is likely to be a function of the degree to which the firm has achieved its goals [Lei and Slocum, 2005]. Some form of general performance must be used in order to substantially compare the performance of a variety of firms. Usually, studies use economic measurements to determine the relative performance of the firm (Narver and Slater, 1990; Hartenian and Gudmundson, 2000). These measurements, such as sales, sales growth; and profitability, are easiest to attain as well as compare across firms. Thus, for this study, both economic and strategic measurements are used.

2.4. The Moderating Roles of Marketing Competencies, Competitive Intensity, and E-Marketing

A distinctive marketing competency is defined as the assessment of how well or poorly firms perform on specific marketing-related activities compared with their competitors. Booth and Philip (1998) see it as a part of organizational capabilities that represent the consolidation of firm-wide technologies and skills into a coherent whole that makes a business unique to the target market and also competitively superior. Distinctive marketing competencies become the thirst of an organization relative to both the target market and the competition.

Miles and Snow (2004), in profiling patterns of behavior of four strategy types of firms, suggest prospectors, defenders, analyzers, and reactors. The basis of this classification is the rate at which a firm changes its products or markets to maintain alignment with its environment. According to Miles and Snow, prospectors search for and capitalize on market opportunities continually by placing their primary emphasis on researching and communicating with the market. Defenders have narrow product-market

domains; hence, they do not seem to search outside their domains for new opportunities, but instead place an emphasis on operating efficiency. Analyzers are a hybrid of the first two, operating in some stable and some changing product-market domains. Reactors are said to respond to environmental changes in inconsistent and transient ways and fail to develop the mechanisms to sense and respond to market changes (Conant, Mokwa, and Varadarajan, 1990). Since firms with a higher degree of market orientation engineer a firm-wide culture, processes, behavior, and skills to continually monitor and respond to customer needs and satisfaction levels and competitor capabilities/actions, they can be expected to be made up of disproportionately more prospectors and analyzers than are firms with a lower degree of market orientation. Conant Mokwa and Varadarajan (1990) also establish that marketing competencies of prospectors and analyzers are superior to those of the other strategic types and that the four types can be ordinarily arrayed in terms of their relative degree of marketing-related competencies, thus: prospector > analyzers, defender > reactor. It will thus be expected that firms characterized by a greater market orientation will attain superior marketing competencies than their competitors in the market. This means that firms with greater customer orientation, competitor orientation, and inter-functional orientation (which are the variables of market orientation) will possess more superior marketing competencies than their competitors. The earlier discussion suggests that e-marketing involvement in marketing activities can facilitate a firm's realization of competitive superiority on several marketing-rated competencies. Competitive environment has been suggested to moderate the market orientation performance relationship (Narver and Slater, 1990; Zuniga-Vincente, de la Fuente and

Suarez-Gonzalez, 2004]. As competitive intensity increases, so does a firm's need to be market-oriented. Therefore, in a highly competitive environment, a greater emphasis is placed on market orientation for better performance (Day and Wensley, 1988; Delbaere, 2002; Zuniga-Vincente, de la Fuente and Suarez-Gonzalez, 2004). Organizations that are market-oriented are more likely to be locked into institutionalized thinking about competitive behaviors (Smith, Collins, and Clark, 2005). This type of thinking becomes a greater burden as competitive intensity increases, because the need for an appropriate response to competitors is greater in highly competitive environments (Jaworski and Kohli, 1993). Hence, it is important for this study to establish the competitive reactions in the event of e-marketing and the combined effects of these variables on the market orientation-performance relationship.

3. Research Structure and Hypothesis Development

This section discusses operationalization of the research constructs for this study, data

Collection, item purification and the measurement model, the reliability of the research constructs, and the overall model fit.

3.1. Operationalization of Research Constructs

Following the previous section, the research structure for this study involves five major multi-items constructs (Figure1). They are market orientation, competitive intensity, e-marketing, marketing competencies, and firm performance. Market orientation is measured using the Narver and Slater (1990) scale, which has three components-customer orientation, competitor orientation, and inter-functional coordination. These are represented by 15 indicator variables, as shown in the appendix. These variables were measured on a 0-5

range (0 = "not at all"; 1 = "strongly disagree"; 3 = "fairly agree"; and 5 = "strongly agree"). Drawing from organizational and marketing literature (Kotler, 2002; Zhan, Zuniga-Vicente, 2005), the author operationalized competitive intensity by looking into six major aspects of market competition that confront any firm. The construct assesses the extent to which a firm faces competition on price, product quality, product variety, market support, customer service, and product technology. Each of the six indicator variables were measured on a 0-5 range (0 = "not at all"; 1 = "very weak"; 3 = "strong"; and 5 = "Intense". As pointed out earlier, although e-marketing is an important concept, it has not received much empirical examination in the past. This study used 11 key activities encompassing a company's five major marketing thrusts - customer- related, field sales, channel members, marketing research, and management

communication/coordination. These were used by Prasad, Ramamurthy, and Naidi (2001) for integration of IT into marketing. The author added five other key activities in three major marketing thrusts.

In all these options, the respondent was not given the option of "undecided" because such an option - according to Darley and Johnson (2005) - would have created difficult research meanings. The e-marketing variables include pricing, product development, modification and launching, and electronic customer relationship management (e-CRM) to ensure that all areas of e-marketing are covered. Marketing competencies were operationalized drawing on some of the variables suggested by Conant, Mokwa and Varadarajan (1990) and Prasad, Ramamurthy and Naidi (2001). The tool seeks to assess the extent to which a firm compares with its competitors on product quality, product variety, market support, customer service, and product

technology. Each of the six indicators was measured on a 0-5 range (0 = "bad performance"; 1 = "well below average"; 3 = "average"; 5 = "well above average"). Firm performance has been measured through the strategic and economic goals of the firm. Strategic thrusts include market share,

return on investment, and incremental turnover; and economic thrusts include sales growth, gaining new technology experts, and profitability (Hartenian and Gudmundson, 2000). In this study, both the economic and the strategic outcomes are used.

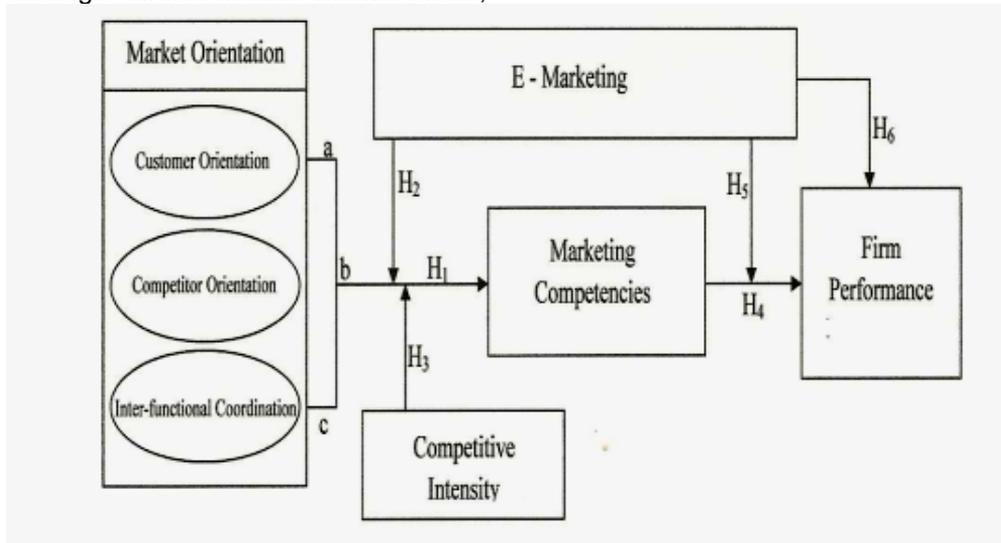


Figure1. Research Model for the Present Study

3.2. Data Collection

Data were collected from firms in the Tehran and Esfahan, Shiraz as largest cities, through a questionnaire distributed to participants. The research instrument was designed based on the theory-grounded operationalization of the various constructs. The instrument was subjected to extensive pre-testing among academics who are experts in the areas of marketing IT and electronic commerce. The research instrument was further pilot-tested with marketing and IT managers. The multiple phases of instrument development and testing resulted in a significant degree of refinement and restructuring of the survey instrument, besides establishing the initial content validity (Nunnally, 2004). The questionnaire was distributed to a sample of executives from 500 firms. Only 198 copies of the research instrument were reasonably and

adequately completed and returned, resulting in a 39.6% response rate. The response rate is considered satisfactory and is comparable to studies on similar topics in marketing (Jaworski and Kohli, 1993; Han, Kim and Strivastava, 1998; Prasad, Ramamurthy and Naidi 2001). A large percentage of the sampled firms were small. For instance, 46% had fewer than 100 employees, 30% had between 101 and 400 employees, 16% had between 401 and 1,000 employees, and 8% had more than 1,000 employees. To test for non-response bias, the data for the early respondents (147 who completed the first-wave questionnaire) and late respondents (51 who completed the second-wave questionnaire) were compared (Churchill, 2006). The rationale was that late respondents are more akin to non-respondents than are early respondents. The comparison of early and late respondents revealed no

statistically significant differences (at 5% level) in terms of all major variables of the study.

3.3. Item Purification and Measurement Model

Initially, the set of items

corresponding to each theoretical construct was subjected to an examination of item-to-total correlation and an exploratory factor analysis, and some of the items were deleted (Churchill, 2006). See Table 1.

Table 1

Item Purification			
S/N	Construct	Number of Initial Items	Number of Final items
1	Market orientation	17	15
2	Customer Orientation	7	6
3	Competitor Orientation	6	4
4	Inter-functional Coordination	6	5
5	E-marketing	19	16
6	Marketing Competence	7	6
7	Competitive Intensity	7	6
8	Firm Performance	8	6

After the initial analysis, the entire set of items was subjected to a confirmatory factor analysis to verify unidimensionality. Specifically, a measurement model was estimated in which every item was restricted to load on its a priori specified factors, and the factors themselves were allowed to correlate (Deng and Hu, 2008). Table 2 shows the results of the measurement model for all constructs. The evaluation criteria can be summarized as follows:

(a) the goodness-of-fit index (GFI) and comparative fit index (CFI) must be equal to or greater than 0.9; (b) the Tucker-Lewis index (TLI) must be equal to or greater than 0.9; (c) the root mean square residual (RMSR) and root mean square error of approximation (RMSEA) must be equal to or less than 0.08; (d) the (chi-square) must be as small as possible; and (e) the p value for the (chi-square) must be equal or less than 0.05.

Table 2

Measurement Result of Constructs

Measurement Model	Range of Standardized Factor Headings	Range of t-value
E-marketing	0.66-0.77	22.23-26.66
Firm Performance	0.67-0.83	20.97-24.67
Competitive Intensity	0.69-0.79	25.44-28.45
Marketing Competence	0.72-0.85	21.52-23.60
Inter-Functional Coordination	0.70-0.72	19.79-22.52
Market Orientation	0.69-0.84	18.92-23.56
Customer Orientation	0.70-0.72	17.94-21.11
Competitor Orientation	0.70-0.75	20.93-24.44

3.4. Reliability of Research Constructs

The final step in the measurement validation involved computing alpha coefficients for each set of measures to test reliability. The reliability of the data were assessed by measuring the internal consistency of the indicator items representing each construct using Cronbach's α , which has been widely used in the literature. Cronbach's alpha is most often used for each set of measures to test reliability of a multi-item scale. The value of 0.60 was suggested to be acceptable in exploratory research (Hair, Anderson et al, 1992). Because all the alpha values were between 0.66 and 0.85, the constructs in the model were very reliable (see appendix). In sum, the evidence suggests that the scale's measurement properties were adequate.

3.5. Overall Model Fit

Covariance analysis using AMOS 5.0 was used to evaluate the factor structure of the items of market orientation, customer orientation, competitor orientation, inter-functional coordination, e-marketing, marketing competencies, competitive intensity, and firm performance constructs in a confirmatory factor analysis model. AMOS 5.0 minimizes a fit function between the actual covariance matrix and a covariance matrix implied by the estimated parameters from a series of structural equations for the confirmatory factor analysis model. These incremental fit indices compare the proposed model with a baseline or null model. The comparative fit index (CFI) and the Tucker-Lewis index (Hair, Anderson, and Tatham, 1991) suggested that the overall comparative model fit is excellent, with a CFI of 0.96 and a Tucker-Lewis index of 0.94. Following Steenkamp's protocol, the author evaluated the GFI statistics (0.95) and the RMSEA (0.048) and the

SRMR (0.04). Each of these indicators suggested that a good model had been identified, as shown in Figure 2. The loadings of manifest indicators on their respective latent constructs all exceeded Steenkamp's criteria of 0.4 for factor loadings. All coefficients in the confirmatory factor analysis model were statistically significant at $P < 0.05$.

4. Results of the study

The organizations exhibit high values on all three dimensions of the market orientation construct (3.910 to 4.300), which is measured on a 0-5 scale and appears to face moderately high competitive intensity (3.656). See Table 3. Marketing competencies average value is 3.896, and the e-marketing average value is 4.620. Firm performance has the lowest average of 2.949 and a median of 2.940. The distributions of values for all the research constructs (except firm performance) are skewed. The skewness is most pronounced in the case of all three components of market orientation and e-marketing. Although market orientation was measured on an interval of 1-5 Likert-type scale; as advanced by the original proponents of the measure (Narver and Slater, 1990), each of the three dimensions of the scale was dichotomized as high and low, using the median value as the cut-off criterion. The same principle was used to split the sample into three groups (high, low, and none) on e-marketing adoption. To be consistent, the sample was also split into high and low on competitive intensity. In view of the discrete nature of these transformed research constructs, an analysis of variance (ANOVA) was judged to be the most appropriate technique to test the relationship posited in the conceptual model between the antecedents and the intermediary endogenous variable, marketing competencies. The data transformation and ANOVA also

enabled one to test for the moderating influences of competitive intensity and e-marketing in an efficient manner.

Table 3

Descriptive Statistics of Study Constructs

Construct/Indicators	Mean(Standard Deviation)	Median	Number
Market Orientation			
• Customer orientation	4.300(0.8652)	4.421	198
• Competitor Orientation	4.125(0.8621)	4.262	197
• Inter-Functional Coordination	3.910(0.8641)	3.810	197
Competitive Intensity	3.565(0.8210)	3.702	198
Marketing Competencies	3.896(0.7121)	3.922	198
Firm Performance	2.949(0.864)	2.940	194
E-Marketing	4.620(1.12)	4.110	162

The three components of market orientation i.e., customer orientation, competitor orientation, and inter-functional coordination have high significant influences on the marketing competencies realized by the firms, in support of H₁. The results also show that e-marketing moderates the link between market orientation (each component) and marketing competencies on one hand, and marketing competencies and firm performance on the other. Specifically, e-marketing interacts significantly with the customer orientation, competitor orientation, inter-functional coordination, and marketing competencies, in support of H_{2a}, H_{2b}, H_{2c} and H₅. Also, competitive intensity interacts significantly with competitor orientation and inter-functional coordination components of market orientation to influence marketing competencies. Also, e-marketing interacts well with marketing competencies to influence firm performance, in support of H_{3b}, H_{3c}, and H₅. H_{3a}, however, is not supported. Because marketing competencies were treated as a continuous variable and because firm performance is also a continuous

variable, a correlation analysis was performed to determine the relationship between marketing competencies and firm performance. The e-marketing moderating effect on this relationship was measured by partial correlation.

5. Discussion and research implications

Researchers in marketing, strategic management, and information technology have seen innovation as consisting of certain technical knowledge about how things can be done better than the existing state of the art (Danneels, 2002; Zuniga-Vicente, De la Fuente, et al., 2004). Firm innovation capability is important in providing opportunities in terms of growth and expansion into new areas, as well as allowing firms to gain competitive advantage (Woodside, 2005). Bengtsson, Boter, and Vanyushin (2007) suggest that the adoption of Internet technology or business be viewed as a special case of innovation. Chesbrough and Teece (1996) posit that implementation of advanced Internet technology like e-marketing requires systematic innovations. Mata, Fuerst, and Barney (1995) and Booth and Philip (1998), however, caution that technical IT skills

per se will not serve as the basis for a sustainable competitive advantage for firms. Rather, they suggest that a more credible source of competitive advantage lies in IT managerial skills; i.e., the ability to conceive, develop, and exploit IT applications to support other business functions (such as marketing), both internal and external to the firm. These researchers believe that the integration of IT into other business functions is typically developed over a long period; it is experienced-based and involves socially complex processes that result in distinctive competencies that are not easily duplicated by competitors. This study generally supports this viewpoint, but highlights an additional dimension. The study results reveal the role of e-marketing as a pure moderator, thus suggesting that its contribution to a firm's superior marketing competencies occurs not in isolation, but in an organizational culture of strong market orientation. Overall, the findings point to the fact that a stronger market orientation in association with a higher degree of e-marketing is related with superior marketing competencies compared with those of competitors. These, in turn, are positively linked with superior firm performance in a developing country like Iran.

The study also shows that competitive intensity moderates both the relationship between competitor orientation and the inter-functional coordination components of market orientation, and marketing competencies. This finding implies that competitor orientation and inter-functional coordination need to be fostered so that that they factor in all key elements of competitive intensity in the market place, such as price, product, product technology, promotion, distribution, and customer service. In addition, effective e-marketing can enable the firm to obtain competitive intelligence and organizational capabilities that facilitate

effective marketing decisions for proper positioning in the industry. This study also shows that a direct positive and strong relationship exists between marketing competencies and firm performance. This finding concurs with the findings of Prasad, Ramamurthy and Naidi (2001) who established that a firm's size and export dependence leverage the positive influence of marketing competencies on export performance. And finally, this study links e-marketing with firm performance.

6. Managerial and public policy implications

The reason for the existence of any business is the customer. And, the needs of customers that businesses are out to satisfy are always changing. This means that firms must be positioned to satisfy these changing needs and aspirations. Technology, as one of the components of business, is also changing constantly. New ideas that will change the face of businesses are always being generated to better satisfy customers. This study shows that e-marketing, as one such technology, has changed the way of doing business. E-marketing allows organizations to deliver customer offerings in a better way. Customer orientation, competitor orientation, and inter functional coordination which are components of market orientation, are moderated by e-marketing and marketing competencies to ensure better performance of the firms in the market place. It has also been shown that e-marketing directly relates to firm performance. The results of this study, therefore, suggest that e-marketing as a driver of organizational performance should be adopted into the processes and activities of firms in order to enhance their acquisition and dissemination of information and their response to information obtained from customers, channels, and competitors. Complementing e-marketing with market orientation ensures a speedy

reaction to market feedback, thus allowing firms to adapt successfully to the external environment, which may be stable or dynamic. Specifically, therefore:

- The results suggest that managers should see to identifying and encapsulating customer desires and aspirations and that managerial competency is needed to keep the customers sold and to maintain a competitive position in the market place.

- Managers should facilitate effective coordination of efforts between and among organizational units and sub-units, as this is fixed to marketing performance.

- Managers must let employees know that it is the responsibility of each and every person in the organization to continually align their marketing competencies to creating superior value for customers. The creation of superior customer value entails an organization-wide commitment to continuous information gathering and to the coordination of customer needs and competitors' capabilities.

- Managers must know that the competitive advantage afforded by market orientation is resident in the marketing competencies of the organization. It is this that drives the business to create and maintain the atmosphere that will produce necessary results for firm performance. So, managers must expose employees to training and development programs that can sharpen their skills and enhance their knowledge and thus enhance their marketing competencies.

- Managers should recognize the leveraging influence of e-marketing in building marketing competencies that are superior to competitors in market-oriented organizations. They should therefore be pro-active in enlisting the commitment of senior management to appreciate the full

potentials of e-marketing; to discuss the pros and cons of data warehousing; and to have strong views on wider technology issues such as enterprise resource planning systems. Chaffey (2002) identifies the steps involved if firms intend to embrace e-marketing:

- (1) Firms must start off using e-mail to communicate internally and with suppliers.

- (2) Firms must then offer product information and availability checking.

- (3) Managers must ensure that linkages progress to online ordering.

- (4) Firms must move to online payment after this.

- (5) Firm must then move to online progress tracking of suppliers, customers, and competitors.

- (6) Firms must be fully linked when all stages are integrated.

It is essential to note that, in order for all these to be implemented easily, managers must:

- (1) Articulate a clearly defined business case,

- (2) ensure senior management sponsorship and support,

- (3) win the hearts and minds of marketing and sales users,

- (4) Have a rigorous systems development methodology,

- (5) Have good project management knowledge, and

- (6) Have a new attitude and mind set.

Thus this integration of e-marketing must be carried out in a customized fashion to achieve or strengthen a distinctive strategic positioning in the market place.

Public policy makers can also encourage firms, especially small and medium-sized enterprises, to invest in appropriate electronic marketing infrastructure and applications through different kinds of incentives and initiatives at a macro level. These measures could include tax relief on e-marketing-related capital expenditures, removal of tariffs on

technology- related machinery and equipment, and encouragement to banks to support firms in these directions and group acquisition of such related equipment by small- and medium-scale firms to reduce the loan burden.

7. Concluding remarks

This study is among the first to investigate, in the Asian context, the relationship among market orientation, marketing competencies, and firm performance and the role of e-marketing in this relationship. The results reveal that market orientation influences firm performance through marketing competencies. The study's central hypothesis, that greater e-marketing moderates the relationship between market orientation and marketing competencies, is generally supported. This finding establishes the need for both researchers and practitioners to be aware of the leveraging influence of e-marketing when it is well adopted by firms. The results also demonstrate a direct link between marketing competencies and firm performance, as well as e-marketing and firm performance. The study notes that

e-marketing is capable of moderating the relationship between marketing competencies and firm performance. The study also finds that, when the competitor orientation and inter-functional coordination component of market orientation are aligned to fit in with the extent of competitive intensity, firms can realize even greater marketing competencies. One of the major limitations of this study is the methodological approach. First, the study uses a firm-level of analysis for measuring its major constructs. Although the approach provides a useful macro view of the relationships, there may be a distortion because of the averaging effect. This effect, however, may not be substantial. The study makes use of cross-sectional data analyses, which do not enable one to make any causal inferences or to identify any possible time lag of the research constructs. Other studies in this area may consider using longitudinal data analyses so as to capture the thrust of this research better; i.e., the role of e-marketing in mediating consequences of market orientation.

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