

The Influence of Internet-Marketing Integration on Marketing Competencies and Export Performance

ABSTRACT

Internet technology is often considered to be fundamentally changing the business paradigm and increasingly integrated into the marketing function. The authors offer a conceptual model linking market orientation, marketing competencies, and export performance and investigate the role of the Internet technology in these relationships. On the basis of an analysis of survey data from 381 manufacturing firms involved in exporting, the authors find that firms' integration of Internet technology into marketing activities generally leverages the influence of market orientation on the firms' marketing competencies (compared with competitors), which in turn have a positive impact on their export performance. The authors identify competitive intensity, firm size, and degree of export dependence as additional moderating variables.

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The Internet is often portrayed as one of the most transforming technological inventions since the Industrial Revolution (*The Economist* 1999). Some commentators believe that the Internet can fundamentally change the business paradigm, potentially affecting every link in an enterprise's value chain (Papows 1998). Porter (2001, p. 71) notes that "by easing and speeding the exchange of real-time information, it enables improvements throughout the entire value chain, across almost every company and industry." The U.S. Federal Reserve Board Chairman Alan Greenspan and other experts have expressed the view that heavy investment in information technology (IT) and the resultant productivity increases have been major factors in the ushering of "the new economy" that is characterized by healthy growth in gross domestic product, low unemployment, and low inflation (Papows 1998) during the 1990s. According to some estimates, 50% of capital spending in the United States goes to enhancing IT, and business spending on IT-related equipment and software accounted for one-third of real gross domestic product growth (*The Economist* 2001).

The Internet and its graphical interface, the World Wide Web, are being adopted by marketers at an exponential rate. According to forecasts by Forester Research, the business-to-business Internet market will dramatically grow from \$43 billion in 1998 to \$1.3 trillion in 2003, doubling every year during the five-year period. Similarly, the business-to-

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consumer market over the Internet is projected to grow from \$8 billion to \$108 billion over the same period (*The Economist* 1999, p. 6). Although the North American market is expected to account for a significant share of the total global e-commerce market, other regions are expected to experience strong growth as well. According to International Data Corporation, Western Europe will experience an increase in on-line commerce from \$5.6 billion in 1999 to \$430 billion in 2003 (*Industry Week* 2000). Benefits sought by marketers in using the Internet include improved efficiency and lower costs across supply and demand chains; improved speed, flexibility, and responsiveness in meeting customer needs; greater market access; and enhanced ability to overcome time and distance barriers of global markets (Kotler 2000; Quelch and Klein 1996).

Because the Internet diminishes the economic consequences of geographic distance to insignificant levels, it opens up substantial opportunities for reaching international as well as domestic markets. Kotler (2000, p. 665) observes that “clearly, marketers are adding on-line channels to find, reach, communicate, and sell” and that “companies small and large are taking advantages of cyberspace’s vanishing national boundaries” (p. 370). Quelch and Klein (1996) believe that the Internet will accelerate the internationalization of small and medium-size enterprises. The Internet is expected to offer smaller firms “a level playing field” in relation to their larger competitors by reducing the traditional importance of scale economies, making global advertising more affordable, and extending smaller firms’ market reach globally (Kotler 2000, p. 670). Given the massive attention paid to the Internet in the business media and the widely held belief that the Internet represents a substantive opportunity for both domestic and international marketing, it is somewhat surprising that only limited scholarly research has been devoted to understanding the role of the Internet in the context of some of the major streams of research in marketing and international marketing (Hoffman and Novak 1996).

Because the marketing concept is a cornerstone of the marketing discipline and managerial practice, there has been considerable interest in recent years among marketing scholars in the construct of market orientation and normative prescriptions that emphasize a firmwide culture and behaviors focused on continuously assessing customer needs, improving customer satisfaction, and creating customer value (Cadogan and Diamantopoulos 1995; Day 1994; Greenley 1995; Kohli and Jaworski 1990; Narver and Slater 1990). Note that this interest has developed over a period that has been characterized by dramatic growth in globalization of markets and adoption of information technology by firms. Prior research has focused on market orientation construct develop-

ment, antecedents to market orientation, and the impact of market orientation on a firm's performance (Hooley and Cox 2000; Jaworski and Kohli 1993; Narver and Slater 1990; Pelham 1997).

Despite the recognition of the importance of international operations for firms' survival and growth, almost no empirical research has been devoted to examining the relationship between market orientation and export performance (with the possible exception of a recent study by Cadogan, Diamantopoulos, and de Mortanges [1999]). In addition, although firms have been rapidly integrating the Internet into their marketing activities, no empirical research has focused on the potential mediating role of Internet-marketing integration on the consequences of market orientation. Also, although some research has related firms' distinctive marketing competencies to their strategic typology (Conant, Mokwa, and Varadarajan 1990; Miles and Snow 1978), none has attempted to relate marketing competencies to market orientation. In the current article, we address these gaps in the literature. We empirically investigate the extent to which integration of the Internet into marketing activities mediates the impact of market orientation on firms' marketing competencies that, in turn, are related to export performance. We examine the model in the context of predominantly small and medium-sized exporting firms in the manufacturing sector. The article is structured as follows: In the next section, we present an overview of current patterns of integration of the Internet into marketing activities. We elaborate the research model and the hypotheses and then provide details of operationalization of the constructs and data collection methodology. Subsequently, we present the empirical findings of the study. Finally, we outline managerial implications and directions for further research.

INTERNET TECHNOLOGY-MARKETING INTEGRATION

Both in business-to-business and consumer marketing domains, the Internet affects activities that occur through three types of marketing channels: (1) communication channels, whose primary functions are to inform buyers and prospective buyers about availability and attributes of a seller's products/services and to enable buyers and prospective buyers to communicate with sellers; (2) transaction channels, whose primary function is to facilitate economic exchanges between buyers and sellers; and (3) distribution channels, whose primary function is to facilitate physical exchanges (Peterson, Balasubramaniam, and Bronnenberg 1997). Among the several ways in which the Internet is expected to transform the marketing functions are disintermediation, customer relations management, mass customization, sales force automation, marketing decision support information, and collaboration and coordination.

The Web enables marketers to uncover new ways to eliminate process redundancies and establish direct interface with customers, suppliers, and strategic alliance partners, thus reducing transaction costs significantly (Papows 1998, p. 43). Disintermediation, the removal of layers of value chain, not only can reduce costs but also can increase the speed and responsiveness of transactions.

The speed, interactivity, continuity, and customization capabilities of the Internet enable marketers to manage customers as strategic assets. Customer service and support functions can be significantly strengthened. Web sites and e-mail systems are being used to answer customers' queries about products, availability, upgrades, and repairs, as well as to show customers new products and gather their ideas. With the help of the Internet, marketers can take their customer service into a different league and change the nature of the relationship with customers from one of reactivity to one of involvement and dialogue (Kalakota and Whinston 1997, p. 331). The Internet and the Web provide marketers potent tools to practice relationship marketing with customers and strengthen customer loyalty.

The Internet and e-mail systems provide marketers extraordinary capability to target specific groups or individuals precisely and enable them to practice mass customization and one-to-one marketing strategies by adapting communications and other elements of the marketing mix to customer segments of size one (Peppers and Rogers 1999). Marketers are aided in this regard by the development of massive databases of customers' demographic, psychographic, purchase, "anonymous profile," and other Internet-related behavioral information. For example, Amazon.com, the online retailer, suggests to its online book buyers other books that are most frequently purchased by past buyers of the book they selected.

The Internet and the Web can play an important role in enhancing the productivity and effectiveness of the sales force by facilitating the selective automation of processes related to supporting the field sales force and integrating sales activity into a company's information structure (Kalakota and Whinston 1997, p. 324). The Internet-enabled sales automation dimensions include, among others, (1) providing the sales force ready access to essential up-to-date information on customers, prospects, products, promotions, prices, and competitor offerings; (2) automating repetitive sales support tasks, such as proposal development, pricing, and answering requests for product literature, and reducing time spent on nonselling tasks, such as compiling sales reports and scheduling sales calls; and (3) providing information that improves the efficiency and effectiveness of the sales force's customer contact (such as qualifying and prioritizing leads from the company Web site).

Disintermediation

Customer Relations Management

Mass Customization

Sales Force Automation

Marketing Decision Support Information

The Web provides ready access to a vast array of global information resources and facilitates the gathering of valuable competitive intelligence and customer-related information. As the network of Internet users expands, marketers are increasingly turning to the Web for market surveys, focus groups, "virtual shopping" experiments for testing new product concepts, customer satisfaction measurements, and other market research information needed for decision making (Burke 1996; Quelch and Klein 1996; Terpstra and Sarathy 2000). Data-mining techniques applied to Web site visits and transactions can provide timely trend analysis and customer profiling information that is valuable in making effective marketing-mix decisions (Kalakota and Whinston 1997, p. 345).

Collaboration and Coordination

The Internet (including intranets and extranets) provides a universal connectivity in synchronous and asynchronous modes that facilitates intra- and interorganizational coordination on an unprecedented scale (Venkatraman and Henderson 1998). It is increasingly recognized that cross-functional coordination within the organization and collaboration with customers, suppliers, and partners have an important influence on an enterprise's innovation and marketing effectiveness (Pappas 1998, p. 10). For example, concurrent product development efforts in pharmaceutical companies are greatly facilitated by the capabilities of the Internet as a knowledge-sharing and knowledge-management tool, especially when product development team members are located in different regions of a country or the world.

The special capabilities of the Web make it a potentially effective channel in international as well as domestic markets (Samiee 1998) and in services as well as product marketing. Berthon and colleagues (1999) illustrate how international firms can use the Web to enhance the marketing of services beyond national boundaries, and they show how cyberservices can overcome many of the customary problems of services marketing (intangibility, perishability, heterogeneity, and simultaneity) through the Web's mass customization and other capabilities.

In their quest for competitive advantage, marketers have attempted to capitalize on the special capabilities of the Internet and integrate it into a broad spectrum of marketing activities in their firms, the applications ranging from those with primarily an internal focus (e.g., field sales force calls, new product teams) to those with primarily an external focus (e.g., distributor support, competitive intelligence), and from those primarily focused on cost reduction (e.g., online purchases of parts, online customer support) to those primarily focused on revenue generation (e.g., online advertising, online order taking). Although the potential benefits of Internet-marketing integration have been described only

anecdotally in the marketing literature (e.g., lower cost, quality, product variety, customer service), no previous research has attempted to examine empirically the consequences of varying degrees of such integration in a firm. However, strategy researchers in the management information systems field have often emphasized that the ability of such IT integration efforts to achieve competitive advantage does not come from the sophistication of the IT technical skills per se but from IT managerial skills—firms' ability to use IT to support and enhance their distinctive competencies and skills in other business functions (Booth and Philip 1998; Mata, Fuerst, and Barney 1995). A major premise of the present article is that integration of the Internet technology into manufacturing export firms' marketing activities leverages the influence of market orientation on their marketing competencies (compared with competitors), which in turn have a positive impact on export performance of these firms. We show the overall research model in Figure 1 and discuss it in detail in the next section.

In recent marketing literature, there has been a marked interest in the concept and measurement of market orientation and its relationship to firms' business performance (Deshpandé and Farley 1998; Kohli and Jaworski 1990; Narver and Slater 1990; Slater and Narver 1994a, b). *Market orientation* refers to a firmwide commitment to the creation and delivery of superior value to customers and to coordinated activities and processes that are designed to accomplish this purpose (Narver and Slater 1990). Although the overall focus is generally the same among the various researchers, the constituent components of the market orientation construct and the modus operandi of the linkage between market orientation and performance vary somewhat between them.

RESEARCH MODEL AND HYPOTHESES

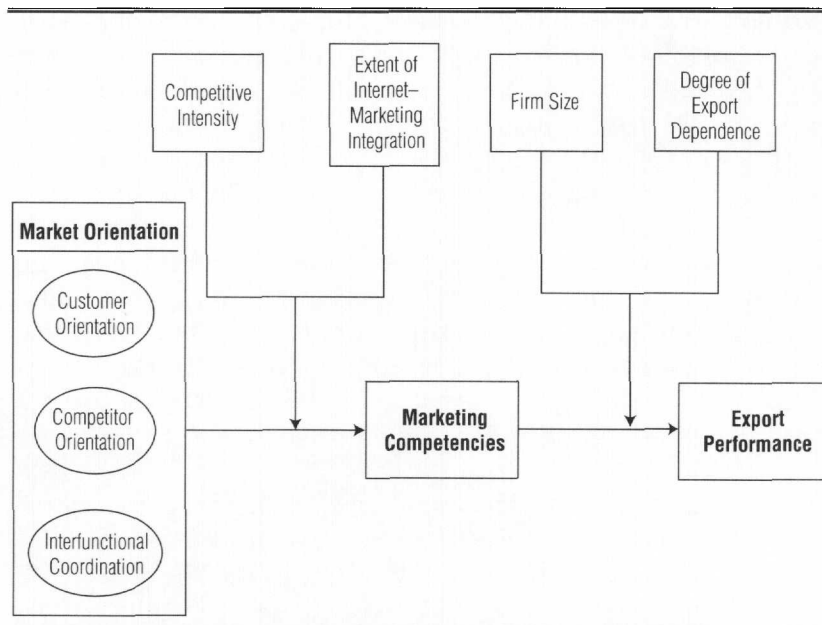


Figure 1.
Research Model

Narver and Slater (1990, p. 21) define market orientation as “the organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and thus, continuous superior performance for the business.” Narver and Slater conceptualize the market orientation construct in terms of three behavioral components: *customer orientation*, which reflects a continuous and proactive disposition and action to understand and meet customer needs and create an “augmented product” continuously; *competitor orientation*, which emphasizes an understanding of and response to the strengths, weaknesses, and strategies of current and potential competitors; and *inter-functional coordination*, which reflects a coordinated use of companywide resources in addition to the marketing function for creating superior value for customers. Kohli and Jaworski (1990) define market orientation in terms of three specific information-processing activities of firms: organization-wide generation of information, the dissemination of this intelligence across the organization, and a coordinated response by the organization to this intelligence related to current and future customer needs and preferences. Thus, Kohli and Jaworski place a heavy reliance on the critical role of information whose value is maximized when it is shared among virtually all functions in an organization and acted on swiftly in a coordinated manner.

Although both Narver and Slater’s (1990) and Kohli and Jaworski’s (1990) approaches have been widely employed in the literature, we deemed Narver and Slater’s scale more appropriate for the current study’s objectives for three reasons: First, it is conceptually and operationally appealing, because it incorporates the essential aspects of Kohli and Jaworski’s constructs of intelligence gathering, dissemination, and responsiveness while assessing organizational cultural factors (Hooley and Cox 2000; Hunt and Morgan 1995). Second, researchers (Hooley and Cox 2000) have noted that Kohli and Jaworski’s (1990) construct more accurately reflects marketing orientation (a concern with implementation of the marketing concept) than market orientation (a concern with both customers and competitors, as has been reflected in Narver and Slater’s construct). 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’s, Kohli and Jaworski’s, and other scales, find that the synthesized versions draw more items from Narver and Slater’s instrument (Deshpandé and Farley 1998; Pelham 1997).

In general, several empirical studies have found a positive relationship between market orientation and business performance in different types of markets (Narver and Slater 1990; Pelham and Wilson 1996; Slater and Narver 1994a, b). A few

have encountered mixed results (Greenley 1995; Jaworski and Kohli 1993).

Investigations of the market orientation–market performance relationship implicitly assume that the focal firms are better than their competitors in terms of their marketing competencies. However, none of the previous studies has explicitly focused on marketing competencies as an intermediate (endogenous) variable in linking market orientation and market performance.

The notion of distinctive marketing competencies, which refers to an assessment of how well or poorly firms perform specific marketing-related activities compared with their competitors, has been examined originally by Miles and Snow (1978) in the context of profiling patterns of behavior of four strategic types of firms: prospectors, defenders, analyzers, and reactors. The primary basis underlying the typology is the rate at which a firm changes its products or markets to maintain alignment with its environment. According to Miles and Snow, prospectors continually search for and capitalize on market opportunities, thus placing their primary emphasis on researching and communicating with the market. Defenders have narrow product-market domains, tend not to search outside their domains for new opportunities, and 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 respond to environmental changes in inconsistent and transient ways and fail to develop the mechanisms to sense and respond to market changes (McDaniel and Kolari 1987). Because firms with a higher degree of market orientation engender a firmwide culture, processes, behaviors, 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. In an empirical investigation of Miles and Snow's strategic typology, Conant, Mokwa, and Varadarajan (1990) find that marketing competencies of prospectors and analyzers are superior to those of the other strategic types and that the four types can be ordinally arrayed in terms of their relative degree of marketing-related competencies as follows: prospector > analyzer > defender > reactor. Therefore, in our study, exporting firms characterized by a greater market orientation are hypothesized to attain superior marketing competencies than their competitors in the markets they serve.

- H₁: Exporting firms with greater (a) customer orientation, (b) competitor orientation, and (c) interfunctional orientation will possess superior marketing competencies than their competitors.

Market Orientation and Marketing Competencies

A previous study by Han, Kim, and Srivastava (1998) in a service industry shows that integration of new technological innovations in service offerings and operations plays a mediating role in the market orientation–organizational performance link. The discussion in the previous section suggests that integration of the Internet technology into marketing activities can facilitate a firm’s realization of competitive superiority on several marketing-related competencies.

We offer some examples of the potential leveraging impact of Internet–marketing integration on the influence of each component of market orientation on various dimensions of marketing competencies. Dell, a computer manufacturer noted for its customer orientation, allows each customer visiting its Web site to choose online the base configuration, features, and options to fit his or her own needs and preferences. When the computer is configured and payment is approved, the order is sent directly to manufacturing and the personal computer is assembled, tested, and shipped promptly to the customer. The interactivity, speed, and mass customization capabilities of the Internet create a vast product variety for Dell’s customers, thus leveraging the impact of customer orientation on competitive superiority on the dimension of product variety.

Faced with the challenge of customer expectations of continuous technical support for its technologically complex products, Cisco Systems now handles 80% of its customer (and partner) queries online. It posts challenging queries on the corporate intranet and invites solutions from diverse functional departments within Cisco. New problems and their solutions become part of Cisco’s online support (FAQ) system, which is designed so that customers can resolve most workday problems on their own. Cisco customers do not go to the Web site just to get information; they use it to share their own experiences with both Cisco itself and other customers, thus creating an online user community that facilitates mutually beneficial learning (*The Economist* 1999, p. 12). The unique capabilities of the Web are used to leverage the linkage between “the interfunctional coordination” component of market orientation and competitive superiority on the customer service dimension of marketing competencies.

Similarly, the leveraging effects of the Internet on the relationship between “competitor orientation” and price competitiveness (another dimension of marketing competencies) are shown by Dell’s practice of dynamic pricing. Armed with continuous Web-based monitoring of competitor prices and tactics (and with the Internet’s capabilities for mass customization and disintermediation), Dell offers different online prices for essentially the same product depending on time of purchase and competitive activity (Glazer 1999).

Therefore, it can be logically expected that greater levels of integration of the Internet technology into marketing activities further strengthen marketing competencies of exporting firms that exhibit a market orientation.

H₂: Greater integration of the Internet into marketing strengthens the relationships between (a) customer orientation and marketing competencies of exporting firms, (b) competitor orientation and marketing competencies of exporting firms, and (c) interfunctional orientation and marketing competencies of exporting firms.

The issue of whether the market orientation–market performance relationship is moderated by a competitive environment has been the focus of some research studies, because such a contingency framework has important managerial implications. The evidence to date is mixed. One study (Day and Wensley 1988) suggests that certain competitive environment conditions (low competitor concentration and high competitor hostility) may favor greater emphasis on customer orientation than on competitor orientation. In another study, Kohli and Jaworski (1990) find that competitive hostility (the breadth and depth of aggressiveness of competitive actions) strengthens the relationship between market orientation and market performance. However, three later studies (Jaworski and Kohli 1993; Slater and Narver 1994a, b) find little evidence to support the moderator role of competitive hostility/intensity. In the context of international marketing, two studies suggest that competitive intensity stimulates firms' efforts for competitive marketing advantage through product/promotion adaptation, price competitiveness, and better marketing support to distributors, all of which are manifestations of firms' superior marketing competencies compared with those of competitors (Cavusgil and Zou 1994; Cavusgil, Zou, and Naidu 1993). In the present study, we hypothesize the following:

H₃: Competitive intensity strengthens the relationships between (a) the customer orientation and marketing competencies of exporting firms, (b) the competitor orientation and marketing competencies of exporting firms, and (c) the interfunctional orientation and marketing competencies of exporting firms.

Prior research on exporting generally suggests that, other things being equal, firms with superior marketing competencies (compared with competitors') are likely to be more successful in their export performance. In a study of the characteristics of successful export ventures in Great Britain, Piercy, Kaleka, and Katsikeas (1998) find that high export performers exhibited significantly higher achievement (compared with competitors) than low export performers on

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several dimensions that may be identified as marketing competencies (though not grouped or labeled as such by the authors). These include, among others, (1) product development skills, (2) product quality, (3) technical support/after-sales service, (4) product line breadth, (5) cost/price (competitiveness), and (6) customer relationship skills.

Cavusgil and Zou (1994) find that performance of export ventures increases with the level of marketing support for distributors and the degree of product adaptation. Other studies indicate that export managers perceive marketing competencies to be important export success factors (Katsikeas, Deng, and Wortzel 1997). On the basis of these research studies, we hypothesize the following:

H₄: Marketing competencies have a positive relationship with export performance.

A firm's capabilities and constraints have an important influence on its choice and implementation of strategies to translate marketing competencies into successful export performance (Cavusgil and Zou 1994; Porter 1980). Some relevant dimensions in this context include the firm's resources available for export development (Terpstra and Sarathy 2000), its international experience (Douglas and Craig 1989), and management commitment (Aaby and Slater 1989; Cavusgil 1984a; Cavusgil and Nevin 1981; Leonidou, Katsikeas, and Piercy 1998).

Several researchers (Calof 1994; Katsikeas, Deng, and Wortzel 1997) have pointed to the use of size as a surrogate indicator of resource availability, citing theoretical explanations that larger organizations have more "slack" resources to invest in the hiring and training of international personnel and other export-related efforts (Dunning 1988). Katsikeas, Deng, and Wortzel (1997, p. 56) observe that "there is consensus in the international business literature that larger companies possess more financial and human resources as well as production capacity, attain higher levels of economies of scale, and tend to perceive lower levels of risk about overseas markets and operations" and that these size-related properties in turn facilitate export activity and success. However, the results have been mixed in empirical studies that investigate the direct influence of firm size on export behavior and success. Several empirical studies find a significant relationship between firm size and propensity to export (Burton and Schlegelmilch 1987; Calof 1994), and some find that a firm's scale/size (as measured by sales turnover or number of employees) is significantly related to export performance (Piercy, Kaleka, and Katsikeas 1998). Other studies find that a firm's export behavior and success are not significantly influenced by size

(Czinkota and Johnston 1983; Diamantopoulos and Inglis 1988) or are only modestly or conditionally influenced by size (Calof 1994; Cavusgil 1984b; Katsikeas, Deng, and Wortzel 1997). In light of the mixed results on the direct effect of firm size on export behavior and performance, size is hypothesized in the present study as a moderating variable in the relationship between marketing competencies and export performance, on the premise that, other things being equal, larger companies with their greater financial, human, and production resources are in a better position to convert their marketing competencies into successful export performance:

H₅: Firm size has a significant moderating influence on the relationship between marketing competencies and export performance.

Export marketing studies also suggest that organizational capabilities that may significantly influence a firm's ability to turn its marketing competencies into export success include managerial commitment as expressed in terms of interest in and willingness to allocate sufficient resources (marketing, financial, personnel, production, and related) to exporting (Cavusgil and Nevin 1981; Cavusgil and Zou 1994; Leonidou, Katsikeas, and Piercy 1998) and the extent of international involvement and experience (Douglas and Craig 1989; Terpstra and Sarathy 2000). In the present study, a firm's degree of export dependence (as measured by percentage of total sales derived from exports) is used as a surrogate for international involvement/experience and management's willingness to commit resources to exporting. It is logical to expect that motivation and ability to deploy marketing competencies into successful export performance through effective choice and implementation of strategies are likely to be higher for firms with a greater degree of export dependence.

H₆: Firms' degree of export dependence has a significant moderating influence on the relationship between marketing competencies and export performance.

There are five major multi-item constructs as outlined in this study's conceptual framework (Figure 1)—market orientation, competitive intensity, Internet–marketing integration, marketing competencies, and export marketing performance. Market orientation is a construct that has been widely investigated in marketing research. As noted previously, we measured the market orientation construct in the current study using Narver and Slater's (1990) scale, which has three components—customer orientation, competitor orientation, and interfunctional coordination. Fifteen indicator variables represent these dimensions, as shown in the Appendix. These

RESEARCH METHODOLOGY

Operationalization of Research Constructs

were measured on a 1–5 range (1 = “strongly disagree,” 3 = “neither disagree nor agree,” and 5 = “strongly agree”).

Drawing from both organizations and marketing literature (Kotler 2000; Porter 1980), we operationalized competitive intensity by tapping into six major aspects of market competition that typically confront any firm. The construct seeks to assess the extent to which a firm faces competition on price, product quality, product variety, market support, customer service, and product technology. We measured each of the six indicator variables on a 1–5 range (1 = “weak,” 3 = “moderate,” and 5 = “intense”).

As noted previously, although integration of IT into marketing is an important concept, it has not received much empirical examination in the past. Because no previous measure exists for this construct, 11 key activities encompassing a company’s five major marketing thrusts—customer-related, field sales, channel members, marketing research, and management communication/coordination—were identified (for details, see the Appendix). The list covers a broad spectrum of applications, ranging from those with primarily an external focus to those with primarily an internal focus, and from those primarily focused on cost reduction to those primarily focused on revenue generation (Quelch and Klein 1996). Internet–marketing integration was operationalized by use versus nonuse of the Internet technology (including the Intranet and Extranet) in each of these 11 key marketing activities.

Drawing on some of the themes included by Conant, Mokwa, and Varadarajan (1989) and information gathered from interviews with executives in local manufacturing firms, we operationalized the marketing competencies construct as a six-item scale. It seeks to assess the extent to which a firm compares with its competitors on key marketing variables such as price competitiveness, product quality, product variety, market support, customer service, and product technology. We measured each of the six indicator variables on a 1–5 range (1 = “well below average,” 3 = “average or comparable,” and 5 = “well above average”).

Business performance has been measured in prior research by both objective and self-reported perceptual measures. In the case of the small and medium-sized firms that are the predominant focus of this study, there are almost no sources of accurate secondary data on business performance in general and on export performance in particular. Export performance is generally defined in previous research as the outcomes of a firm’s activities in export markets. In this study, we operationalized the export performance measure as a multi-item construct that combines three primary groups of variables that have been used in prior research (Zou, Taylor,

and Osland 1998): (1) economic/financial outcomes of exporting, (2) strategic outcomes of exporting, and (3) satisfaction with outcomes of exporting. The economic/financial performance items included sales growth and profitability. The strategic performance items included building awareness and image overseas, entering key markets abroad, improving market share position, and gaining new technology/expertise. We brought the management's satisfaction dimension into the construct by asking respondents in the exporting firms to assess their export performance in relation to their top management's expectations on a five-point range (1 = "far below expectations," 3 = "met expectations," and 5 = "far above expectations"). Note, however, that the measurement of export performance in this study was at a firm level and not at an individual export venture level. Given the nature of this study, with a focus on broad, macro relationships between the selected research constructs, and the tradition of conceptualizing some constructs, such as market orientation, as firmwide characteristics, we deemed the measurement approach appropriate for the objectives of this study.

There are two more (moderating) variables in the model—size and degree of export dependence. Firm size was measured in terms of number of employees, and degree of export dependence was measured as the percentage of the company's total sales contributed by export operations.

Data were collected from manufacturing firms in a large Midwestern state of the United States through a mail survey instrument. An initial version of the survey instrument was developed on the basis of the theory-grounded operationalization of the various constructs. This version was subsequently refined through extensive pretesting with academics who have significant expertise in marketing, IT, and electronic commerce. The 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 1978).

The research study was cosponsored by the Midwestern state's manufacturers association. We mailed the survey questionnaire to a systematic random sample of 2019 exporters in the selected state, using the Harris InfoSource directory of manufacturers. We addressed the questionnaire to the chief executive officers of the companies with a cover letter requesting that "the questionnaire be completed by the executive(s) with the primary responsibilities for marketing and international operations in your organization." We believed that sending the questionnaire to the chief ex-

Data

executive officers with a cover letter cosigned by the president of the state's manufacturers association would secure greater cooperation and ensure routing to the appropriate executives in marketing and international operations within their companies.

After four weeks, we again mailed the questionnaire to all nonrespondents. A total of 381 usable completed questionnaires was returned (24 were returned as undeliverable), yielding a response rate of 19.1%. Given that the survey was unsolicited, the instrument was extensive, and the respondents were in large proportion small businesses that do not have much time and resources to spare for academic research studies, we considered this response rate satisfactory and comparable to studies on similar topics in marketing (Han, Kim, and Srivastava 1998; Jaworski and Kohli 1993). A large percentage of the sampled firms were small: 62% had fewer than 100 employees, 27% had between 101 and 400 employees, 7% had between 401 and 1000 employees, and 4% had more than 1000 employees. Both industrial and consumer products are represented: industrial products only (58%), consumer products only (23%), and combination (20%). For almost all (97.3%) the responding firms, exporting was the only mode of international involvement; the rest were involved with other modes in addition to exporting. To test for nonresponse bias, we compared data for the early respondents (331 who completed the first-wave questionnaire) and late respondents (50 who completed the second-wave questionnaire) (Churchill 1976). The rationale was that late respondents are more akin to nonrespondents 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, thus providing no evidence of nonresponse bias. A summary of the responding firms' profiles is presented in Table 1.

As intended, the responding firms were generally small in size (mean = 189, median = 75 employees). The degree of export dependence (i.e., share of international sales as a proportion of firms' total revenues) was moderately low (mean = 121.96%, median = 3%). Approximately 68% of the responding firms (n = 258) had their own Web sites (accessible through the Internet, Intranet, or Extranet) for marketing activities; a further 19% of the respondents (n = 73) were planning to set up their own sites in the near future. However, of the firms that had their own Web sites, only a small set of the 11 key marketing activities was supported by its Web sites (mean = 4.47, median = 4.00). The responding firms exhibit high values on all three dimensions of the market orientation construct (3.85 to 4.10), which is measured on 1–5 scales, and appear to face moderate to high competitive intensity (3.58).

Construct/Indicators	Mean (Standard Deviation)	Median	Number
Market orientation			
Customer orientation ^a	4.100 (.658)	4.167	375
Competitor orientation ^a	4.046 (.678)	4.250	374
Interfunctional coordination ^a	3.849 (.647)	3.800	374
Competitive intensity ^a	3.575 (.630)	3.667	379
Marketing competencies ^a	3.753 (.521)	3.833	381
Export performance ^a	2.626 (.643)	2.667	314
Extent of Internet–marketing integration (1 to 11)	4.472 (2.41)	4.000	254
Firm size (number of employees)	189 (312)	75	380
Degree of export dependence	11.96% (15.48%)	3.00%	331
Exporters with Web (none = 45, plan to = 73, yes = 258)	NA	NA	376

^aIndicator variables of the marked constructs are measured on a 1–5 scale.

We performed an exploratory factor analysis using principal components and varimax rotation technique to examine the unidimensionality/convergent validity of each predefined multi-item construct (Nunnally 1978). We applied the four commonly employed decision rules in empirical research to identify the following factors: (1) minimum eigenvalue of 1, (2) minimum factor loading of .30 for each indicator variable, (3) simplicity of factor structure, and (4) exclusion of single-item factors from the standpoint of parsimony. We evaluated reliability by assessing the internal consistency of the indicator items representing each construct using Cronbach's α , which has been widely used in literature. Previous research suggests a value of .60 to .70 to be acceptable in exploratory research (Nunnally 1978). As detailed in the Appendix, the results affirm that all the scales display satisfactory levels of reliability with Cronbach's α values much higher than the minimum threshold.

The results of factor analysis related to unidimensionality/convergent validity were satisfactory for all constructs (for details, see the Appendix). All the constructs emerged with predefined factor structures and satisfactorily met the decision criteria noted previously. The mean of the multi-indicator items of each factor was used in subsequent statistical analyses. In the case of the export performance construct, for example, a factor analysis of the data on the six items yielded a single factor (which accounted for 65% of the variance and yielded an eigenvalue of 3.90), and factor loadings for the six items ranged

Table 1.
Descriptive Statistics of
Study Constructs

Validity and Reliability of Research Constructs

RESULTS OF THE STUDY

Market Orientation– Marketing Competencies Link

from .681 to .876. For each respondent firm, a mean score of export performance was derived from the six item ratings. The mean performance scores were then used in the analysis.

Before we present the results of the study, we point out some of the data transformations we performed before testing the study's hypotheses. It can be observed from Table 1 that the distributions of values for all the research constructs (except export performance) are skewed; the skewness was most pronounced in the case of all three components of market orientation and Internet–marketing integration. Although we measured market orientation on an interval 1–5 Likert-type scale, as laid out by the original proponents of the measure (Narver and Slater 1990), we dichotomized each of these three dimensions (high and low) using the median value as the cut-off criterion. We used the same principle to split the sample into three groups (high, low, and none) on Internet–marketing integration. To be consistent, we also split the sample into two groups (high and low) on competitive intensity. In view of the discrete nature of (these transformed) research constructs, we judged an analysis of variance (ANOVA) 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 us to test for the moderating influences of competitive intensity and Internet–marketing integration in an efficient fashion. The results of the ANOVA are presented in Table 2.

All three components of market orientation—customer orientation, competitor orientation, and interfunctional coordination—have highly significant influences on the marketing competencies realized by the firms in this study, in support of H_1 .¹ The results also indicate that Internet–marketing integration moderates the link between market orientation (each component) and marketing competencies. Specifically, Internet–marketing integration interacts significantly with the competitor orientation and interfunctional coordination dimensions, in support of H_{2b} and H_{2c} . Given that Internet–marketing integration does not have any direct influence on marketing competencies (in line with our conceptualization), it emerges as a “pure” rather than a “quasi” moderator. Competitive intensity also emerges as a pure moderator, but in only one instance; it interacts significantly with the competitor orientation component of the market orientation measure in influencing marketing competencies realized by firms in this study, in support of H_{3b} . H_{2a} , H_{3a} , and H_{3c} are not supported in this study.

Marketing Competencies– Export Performance Link

We argued while developing the hypotheses that greater marketing competencies can result in the firm achieving better performance in its export markets. We had also proposed that

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Independent and Moderating Variables	F	Degrees of Freedom	Probability (F)	Hypothesis: Support
Independent Variables				
X1: Customer orientation	53.560	1	.0001	H _{1a} : Yes
X2: Competitor orientation	7.325	1	.007	H _{1b} : Yes
X3: Interfunctional coordination	15.980	1	.0001	H _{1c} : Yes
Moderating Variables				
Z1: Extent of Internet-marketing integration	1.256	2	.286	NA
Z2: Competitive intensity	2.148	1	.144	NA
Interaction Effects				
X1 × Z1	1.549	1	.214	H _{2a} : No
X2 × Z1	2.542	1	.080	H _{2b} : Yes
X3 × Z1	3.504	1	.031	H _{2c} : Yes
X1 × Z2	.460	1	.498	H _{3a} : No
X2 × Z2	7.278	1	.007	H _{3b} : Yes
X3 × Z2	1.768	1	.184	H _{3c} : No

Notes: Total variance explained by the model variables = 24.47%. The results remained more or less the same even after we controlled for firm size.

	Customer Orientation		Competitor Orientation		Interfunctional Coordination	
	Low	High	Low	High	Low	High
Internet-Marketing Integration						
None	3.52	3.87	3.59	3.81	3.46	3.97
Low	3.63	3.91	3.62	3.86	3.65	3.87
High	3.57	4.09	3.69	3.95	3.58	4.02
Competitive Intensity						
Low	3.56	3.98	3.56	3.87	3.62	3.88
High	3.71	3.98	3.77	3.92	3.66	3.98

Notes: Values in the cells are marketing competencies measured on a 1-5 scale (1 = "well below industry average," 5 = "well above industry average").

larger firms and firms that have a greater degree of export dependence are likely to fare even better. Because we treated marketing competencies as a continuous variable (in our ANOVA tests presented in Table 2), and because export performance is also a continuous variable, we performed moderated regression analysis to examine this segment of the relationships posited in our conceptual framework. We present the results of this analysis in Table 3.

H₄, H₅, and H₆ are all supported.² Marketing competencies built up by a firm enable it to enjoy superior export performance. Furthermore, as hypothesized, both size and degree of export dependence emerge as moderators of the relationship between market competencies and export performance.

Table 2.
Results of ANOVA for
Marketing Competencies
(n = 363)

Table 3.
Regression Analysis Results
for Export Performance

Independent/Moderating Variables	Stepwise Model	Hypothesis Support ^a
Independent Variable		
X4: Marketing competencies	.143*	H ₄ : Yes
Moderating Variables		
Direct Effects		
Z1: Degree of export dependence	—	NA
Z2: Firm size	—	NA
Interaction Effects		
X4 × Z1	.262**	H ₅ : Yes
X4 × Z2	.183**	H ₆ : Yes
F-statistic (degrees of freedom; significance level)	19.211 (3,309; $p < .0001$)	
Explained variance (R ²)	15.72%	
Explained variance (adjusted \check{R}^2)	14.90%	

^aSupport evaluated on the basis of the stepwise regression model results.
* $p < .01$.
** $p < .005$.

Larger firms and those with greater export dependence can leverage performance benefits otherwise obtained from having generated superior marketing competencies.

CONCLUSIONS

This study is among the first to investigate the relationship among three key concepts—market orientation, marketing competencies, and export performance—and the role of Internet–marketing integration in this relationship. The results suggest that market orientation influences export performance through marketing competencies, a relationship that until now has only been implicitly assumed by researchers. The study’s central hypothesis, that integration of Internet technology 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 the Internet technology when it is well integrated into a firm’s marketing activities. The results also demonstrate that a firm’s size and degree of export dependence moderate the influence that marketing competencies have on export performance. The study also finds that when the competitor orientation component of market orientation is honed to fit with the extent of competitive intensity, the firms can realize an even greater level of marketing competencies.

Discussion and Research-Related Implications

Several researchers in strategic management information systems have cautioned that technical IT skills per se will not serve as the basis for sustainable competitive advantage for firms. Instead, they suggest that a more credible source of competitive advantage lies in IT managerial skills: the ability to conceive, develop, and exploit IT applications to support

other business functions (such as marketing), both internal and external to the firm (Booth and Philip 1998; Mata, Fuerst, and Barney 1995). These researchers believe that such an integration of IT into other business functions is typically developed over long periods of time, is experience based, and involves socially complex processes that result in distinctive competencies that are not easily duplicated by competitors.

The present study generally supports this viewpoint but highlights an additional dimension. The study results, pointing to the role of Internet–marketing integration as a pure moderator, suggest that its contribution to an exporting firm’s superior marketing competencies occurs not in isolation but in an organizational culture of strong market orientation. Overall, this study demonstrates that a stronger market orientation in conjunction with a higher level of Internet–marketing integration is associated with superior marketing competencies compared with those of competitors, which in turn are positively linked with superior export performance.

The results also suggest that the degree of competitive intensity moderates the relationship between the competitor orientation component of market orientation and marketing competencies. This implies that competitor orientation needs to be fostered such that it factors in all the key elements (such as price, product, product technology, promotion, distribution, and customer service) of competitive intensity that are faced in the marketplace. Again, an effective Internet–marketing integration can enable the firm to obtain critical competitive intelligence in a timely fashion to make effective marketing decisions.

In terms of the link between marketing competencies and export performance, the study’s results uphold and validate other findings in the marketing literature. In addition, the study’s findings reinforce the importance of a firm’s size and the extent of its export dependence in leveraging the positive influence of marketing competencies on export performance. As noted previously, size may serve as a proxy for the firm’s availability of resources, and degree of export dependence is an indicator of motivation to commit resources for its international operations.

The findings of the study are of significance to firms’ executives who are responsible for export markets as well as to those responsible for the domestic market. By demonstrating the linkage between market orientation and export performance through marketing competencies, this study underscores the point that market orientation is an organizational imperative that applies to both domestic and export operations of the firm. The dynamism, complexity, and competitive intensity of export markets provide an added rationale in this regard. Export

Managerial and Public Policy Implications

managers need to secure senior management's commitment and initiatives for (1) developing a better firmwide understanding of the needs of and value creation for export customers, (2) developing a firmwide understanding of the strengths and weaknesses of competitors in the export markets, and (3) encouraging cross-functional contributions to the design and implementation of strategies for providing better value and satisfaction to export customers. In these efforts, employees also need to be sensitized to the relevant cultural and other nuances of export customers in each of the firm's product-markets. Narver, Slater, and Tietje (1998) advocate a combination of what they term a "programmatic approach" (based on education programs and organizational changes) and "market-back approach" (based on experiential learning) for creating a market orientation effectively within organizations.

Export managers should also take note of the "leveraging" influence of Internet-marketing integration in building marketing competencies that are superior to competitors' in market-oriented organizations. Export managers should be proactive in securing senior management's commitment to devote the necessary resources, in terms of both technology (e.g., servers, fire walls, databases) and the necessary technology management skills (in-house or consultant expertise), for effectively integrating the Internet technology into internal and external marketing activities and processes pertinent to the firm's export markets. The focus of such technology integration efforts is to enhance marketing competencies (such as those identified in the present study and by Piercy, Kaleka, and Katsikeas [1998]) that yield a sustained competitive advantage in export markets. However, all such technology integration initiatives should be firmly anchored in a strong market orientation. Following Porter's (2001, p. 70) analysis, export managers can be expected to be more successful in achieving a sustainable competitive advantage if the integration of the Internet into marketing activities is carried out in a customized fashion to achieve or strengthen a "distinctive strategic positioning" in the export markets (based on delivering a unique type of value to the export customers compared with competitors) than if it is carried out primarily to enhance "operational effectiveness."

For firms that are smaller and/or have only limited international involvement, public export-assistance programs have generally focused on motivating them as to the importance of exporting and providing key export market information (e.g., export market profiles, distributors, sales leads). The current study points to the additional need for these programs to encourage firms to embrace the Internet in leveraging their market orientation to realize superior marketing competencies and export performance. The importance of this task grows dramatically as more and more businesses in the interna-

tional marketplace adopt the Internet. Public policymakers can also encourage exporters, especially small and medium-size enterprises, to invest in appropriate Internet infrastructure and applications through a variety of incentives and initiatives at a more macro level. These could entail, for example, tax breaks for Internet-related capital expenditures, extension of a moratorium on taxation of Internet-based sales transactions, and/or broadening the scope of exports-facilitating financing activities by governmental agencies such as the Export-Import Bank or the Overseas Private Investment Bank to cover Internet-related capital expenditures by exporters and perhaps even their major customers abroad.

The empirical findings and conclusions drawn from this study are subject to several limitations associated with the methodological approach used. The study employed a firm-level of analysis for measuring its major constructs. Although this approach provides a useful macro view of the relationships, it also potentially involves an averaging effect over the different product-market settings of individual firms. It would be desirable to investigate whether the results of the present study can be replicated in future studies that use individual product-market export ventures as the unit of analysis. However, because small and medium-sized exporters generally deal with single products and a limited number of export markets (Katsikeas, Deng, and Wortzel 1997), any distortion due to an averaging effect in the current study is perhaps not substantial.

Further research designed to replicate or extend this study should also examine ways to improve measurement of the export performance construct. On the basis of an extensive meta-analysis of more than 100 empirical studies, Katsikeas, Leonidou, and Morgan (2000) emphasize the need to use multidimensional conceptualizations and operationalizations of export performance and to examine interrelationships among dimensions. In the current study, as in most related prior studies, a composite index of the export performance construct was developed from multiple indicators of performance. Further research could benefit from a richer conceptualization and operationalization of export performance that incorporates the dimensions of effectiveness, efficiency, and adaptiveness.

The present study focuses only on exporting manufacturers. However, given the dominant role of services in developed economies and the growing use of the Web in internationalization of services (Berthon et al. 1999), it is important that the study be replicated with exporting service firms in the future. It should also be noted that the present study's findings are based on cross-sectional data analyses, which do not enable us to make any causal inferences or identify any possible time-lag effects of the research constructs.

Limitations and Further Research

Somewhat unexpectedly, we found that the influence of the customer orientation component of market orientation on marketing competencies was not significantly leveraged by the level of the Internet technology integration. The respondent firms in this study may have initially limited their Internet applications to improvement of internal efficiencies and coordination (as indicated by the significant interaction effect of the interfunctional coordination component with the extent of Internet–marketing integration). We suspect that it is only when firms are satisfied with assimilation and institutionalization of IT internally that they tend to reach beyond the borders of their organization for applications that involve customers, suppliers, and other trading partners. Such a view is in conformity with observations in the interorganizational systems literature (Venkatraman 1994). Furthermore, competitor orientation typically requires scanning the environment for competitive intelligence; searching for such information on the Internet does not demand huge expenditure of resources. However, integrating the Internet/Web with customers' operations would require a significant amount of resources for establishing fire walls and maintaining security of information and transactions. To explore the potential leveraging effect of the Internet integration more fully on the relationship between customer orientation and marketing competencies (and export performance), it would be desirable to replicate the current study at a future date when exporters have adopted the Internet more intensely for applications beyond their organizational boundaries.

As noted in the results presented previously (Table 1), the extent of Internet–marketing integration among the respondent firms in the study was somewhat low. This may be a consequence of slower adoption of the Internet technology by smaller firms. Another reason may be that not all international markets these firms are dealing with are at the same level of sophistication in the adoption of the Internet technology; both ends of multiple dyadic linkages between the focal firm and its customers must be at comparable levels of sophistication for interorganizational electronic commerce transactions to occur. It should be noted, however, that at the present time, Web site deployment among larger companies in European countries—as measured by percentages of companies with public sites, Intranets, customer extranets, and supplier extranets—is at nearly the same level as in North America (*The Economist* 1999, p. 6). Countries in the Asia-Pacific region and elsewhere are making rapid strides to adopt the infrastructure needed for global electronic commerce (*Industry Week* 2000). In addition, the number of individual users of the Internet in Western Europe and Asia-Pacific regions are projected to catch up with the levels for North America by 2005 (Kleindl 1999, p. 173). The findings of this article correspond to the level of adoption of the

Internet technology in international markets at the time of this study. It will be important to replicate the study in the future, as the Internet infrastructure is adopted more widely and intensively in international markets.

1. The results in Table 2 were essentially unchanged when we reran the ANOVA model controlling for firm size as a covariate.
2. The results in Table 3 were essentially unchanged when we reran the regression analysis with the degree of export dependence variable redefined as a composite of two items: percentage of total sales derived from foreign operations and percentage of total profits derived from foreign operations.

NOTES

I. Market Orientation (Narver and Slater 1990) ^a	Factor Loading
Customer Orientation (Cronbach's $\alpha = .823$)	
1. Business objectives driven by customer needs and satisfaction	.702
2. Monitor/assess commitment in serving customer needs	.742
3. Competitive advantage based on understanding customer needs	.720
4. Strategies driven by goal of increasing customer value	.725
5. Frequent measurement of customer satisfaction	.758
6. Close attention to after-sales service	.724
Competitor Orientation (Cronbach's $\alpha = .706$)	
7. Sharing information about competitors	.675
8. Rapid response to competitor actions	.736
9. Management regularly discusses competitor strengths/weaknesses	.743
10. Targeting customers for competitive advantage opportunities	.760
Interfunctional Coordination (Cronbach's $\alpha = .719$)	
11. Regularly visit customers	.709
12. Free communication of customer information	.708
13. Internal business functions integrated to serve customer needs	.664
14. Understand how employees can create customer value	.714
15. Sharing of resources among business units	.622
II. Competitive Intensity in the Markets Served in Terms of ... (Cronbach's $\alpha = .762$)^b	
1. Price	.540
2. Product quality	.798
3. Product variety	.625
4. Marketing support	.640
5. Customer service	.763
6. Technology	.681

APPENDIX: INDICATOR VARIABLES FOR STUDY CONSTRUCTS

**III. Extent of Internet-Marketing Integration
(Cronbach's $\alpha = .720$)^c**

Customer-Related Marketing Activities:

Use of Internet/Intranet/Extranet to

Factor Loading

- | | |
|---|------|
| 1. Promote and advertise company's products, services, and capabilities | .487 |
| 2. Provide online product catalog to customers and prospects | .699 |
| 3. Answer customer queries about product availability, order status, etc. | .706 |
| 4. Allow customers to place online orders | .655 |

Field Sales- and Channel Member-Related Marketing Activities: Use of Internet/Intranet/Extranet to

- | | |
|--|------|
| 5. Enable salespeople online access to product/price/performance information | .723 |
| 6. Enable salespeople online transmission of sales call information | .773 |
| 7. Enable online purchase of parts/components from suppliers | .664 |
| 8. Provide online support to distributors/dealers | .642 |

Marketing Research-Related and Management Communication Activities: Use of Internet/Intranet/Extranet to

- | | |
|--|------|
| 9. Gather market related information on customers, competitors, and industry | .818 |
| 10. Use Web site visitor information for marketing and prospecting | .788 |
| 11. Realize better communication and coordination in managing operations and team projects | .514 |

IV. Marketing Competencies Compared with Industry Competitors (Cronbach's $\alpha = .650$)^d

- | | |
|--------------------------|------|
| 1. Price competitiveness | .356 |
| 2. Product quality | .631 |
| 3. Product variety | .654 |
| 4. Marketing support | .685 |
| 5. Customer service | .616 |
| 6. Technology | .649 |

V. Export Performance (Cronbach's $\alpha = .891$)^e

- | | |
|--|------|
| 1. Building awareness and image overseas | .812 |
| 2. Entering key markets abroad | .876 |
| 3. Sales growth | .838 |
| 4. Gaining new technology/expertise | .681 |
| 5. Improve market share position | .856 |
| 6. Profitability | .758 |

^aMeasured on a 1 ("strongly disagree") to 5 ("strongly agree") scale.

^bMeasured on a 1 ("weak") to 5 ("strong") scale of degree of competitive intensity.

^cMeasured on a 1 ("currently in use") to 0 ("not in use") scale of Internet technology integration.

^dMeasured on a 1 ("well below average") to 5 ("well above average") scale relative to industry competitors.

^eMeasured on a 1 ("far below expectations") to 5 ("far above expectations") scale of top management.

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