

Association for Information Systems AIS Electronic Library (AISeL)

AMCIS 2004 Proceedings

Americas Conference on Information Systems
(AMCIS)

December 2004

Web Assimilation and the Market Orientation- Performance Relationship

Joyce Jackson
University of South Carolina

Kuo-chung Chang
University of South Carolina

Follow this and additional works at: <http://aisel.aisnet.org/amcis2004>

Recommended Citation

Jackson, Joyce and Chang, Kuo-chung, "Web Assimilation and the Market Orientation-Performance Relationship" (2004). *AMCIS 2004 Proceedings*. 318.
<http://aisel.aisnet.org/amcis2004/318>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2004 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Web Assimilation and the Market Orientation-Performance Relationship

Joyce Jackson

University of South Carolina, USA
joyce.jackson@sc.edu

Kuo-chung Chang

University of South Carolina, USA
changkp1@moore.sc.edu

ABSTRACT

Occupying the center stage of the theory and practice of marketing strategy for the past three decades is the concept of *market orientation*. The fundamental assumption that firms exhibiting a greater market orientation will show better financial and market performance has received mixed support to date. It overlooks the fact that a market oriented organization may fail to respond to market needs because it lacks the capability to do so. In an e-commerce context, the relationship between a firm's market orientation and its business performance is contingent on *web assimilation*, i.e. the extent to which web technologies have been infused into marketing activities and strategies that support e-commerce initiatives. This study will examine the impact of this important moderator. A content analysis of CEO letters to shareholders from corporate annual reports will serve as the data source.

Keywords: e-commerce, strategy, market orientation, web assimilation, content analysis, CEO letter to shareholders.

INTRODUCTION

As the Internet continues to soar in reach, power and functionality, it is not only a means to link computers, but has become a key instrument by which individuals and organizations exchange money and conduct transactions. In fact, Forrester Research predicts that in 2004, online commerce will reach \$6.8 trillion which comprises both B2B and B2C online transactions. E-commerce, or the application of Web technologies for understanding customer needs, marketing products, services and product-market solutions and taking customer orders, has emerged as a significant imperative in contemporary firms (Chatterjee et al. 2002). Therefore, successfully integrating web technologies into a businesses' competitive marketing strategy is essential.

Occupying the center stage of the theory and practice of marketing strategy for the past three decades is the concept of *market orientation*. Generally speaking, a market orientation is based on the adoption and implementation of the marketing concept which holds that organizational success "depends on determining the needs and wants of target markets and delivering...satisfactions [to those markets] more effectively and efficiently than competitors do" (Kotler and Armstrong, 1994, p. 13). It reflects a set of organizational beliefs to create superior value for customers and quickly respond to the marketing initiatives of competitors. Despite the various conceptualizations (Kohli and Jaworski 1990; Narver and Slater 1990; Ruekert 1992; Deshpande, et al. 1993), an underlying assumption of market orientation is that if the organization is market oriented, it necessarily has the ability to generate and disseminate market intelligence throughout the organization. Consequently, it can sense and respond to market trends and eventually achieve superior business performance. In fact, this may not be the case. Specifically, in an e-commerce context, a market-oriented firm may not necessarily perform better because it lacks the resources to realize the mission of a market orientation. This study posits that web assimilation, which is the extent to which the web technologies have been assimilated into a firm's e-commerce strategies and activities, is an essential organizational resource that can affect the relationship between a market orientation and business performance within an e-commerce context. Therefore, the purpose of this study is to explore the impact of this important moderating factor, web assimilation, on the market orientation-business performance relationship.

The following section will discuss the conceptual foundation for the study. Next, we provide our a priori expectations regarding the relationships between the theoretical constructs of interest. The methodology section follows which includes a discussion of the sampling strategy, data collection procedure, content analysis procedure and the data analysis strategy.

BACKGROUND

Market Orientation

There are two dominant conceptualizations of market orientation. Kohli and Jaworski (1990) define market orientation as the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of that intelligence across departments, and organization-wide responsiveness to it. Narver and Slater (1990) complement Kohli and Jaworski's conceptualization by suggesting that market orientation consists of three behavioral components: customer orientation, competitor orientation and inter-functional coordination which results in the coordinated creation of customer value.

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 approach more appropriate for the current study's objective 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). This study adopts Narver and Slater's conceptualization, but only focuses on customer and competitor orientation. As the authors argue, market-oriented firms would continuously generate, disseminate, and respond to knowledge about markets, products, services and resources. Therefore, the third behavioral component, inter-functional coordination, is a part of the central essence of the first two.

Market Orientation and Performance

The fundamental assumption that firms exhibiting a greater market orientation will show better financial and market performance has had mixed support to date. Previous research suggests that the positive market orientation-performance relationship is equivocal in terms of the nature of the performance impact (Deshpande and Farley 1993; Jaworski and Kohli 1993; Kohli and Jaworski 1990; Narver and Slater 1990; Slater and Narver 1994). This inconsistency results from the underlying assumption made by the market orientation literature. The argument that establishes a positive relationship between market orientation and business performance takes a deterministic view in that it assumes that a market oriented firm will necessarily possess the required resources to collect market information and respond to market changes. It overlooks the fact that, particularly within an e-commerce context, a market oriented organization may fail to respond to the market needs because it lacks the organizational resources to do so. Stated differently, the market orientation-performance relationship may be contingent upon the extent to which the firm can employ needed resources in order to adapt to the changing business environment. The effective deployment of the necessary resources will ultimately strengthen the relationship between market orientation and business performance.

Web Assimilation

There are various organizational resources that enable a firm to effectively pursue a market-oriented strategy. In an e-commerce market environment, we believe that web assimilation, which is defined as the extent to which the web technologies have been assimilated in firms' e-commerce strategies and activities (Chatterjee et al. 2002), is the most relevant organizational enabler that can carry out the mission of market orientation. In e-commerce settings, web technologies show a great potential for information acquisition, sharing, and dissemination, all of which are the essential processes of a market orientation (Min et al. 2002). Web technologies provide a responsive and interactive medium through which an organization can gain and respond to in-depth knowledge with respect to customer's and competitors' profiles (Peterson et al., 1997). They provide additional contact avenues through which firms can acquire information regarding customer preferences. Web technologies also enable firms to stay abreast of the marketing initiatives of their competitors. However, for a market-oriented firm to gain superior performance, web technologies must be effectively integrated into its business processes in order to support e-commerce strategies and activities. The assimilation of web technologies into a firm's working processes can quickly deliver needed information to the right person at the right time and place. Effective information delivery consequently allows a firm to quickly react to the market changes and subsequently obtain better performance.

RESEARCH MODEL AND HYPOTHESES

Figure 1 below shows the research model for this study which incorporates essential elements from the market orientation and innovation assimilation literature.

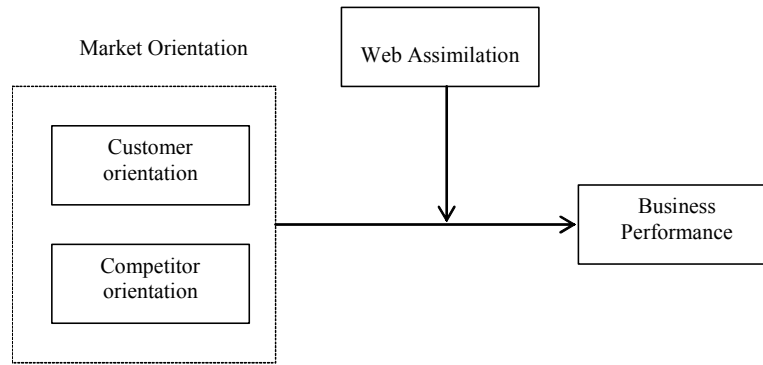


Figure 1. Research Model

Our focus is primarily on the moderating effect of web assimilation on the relationship between market orientation and business performance in the context of e-commerce. The market orientation literature argues that firms that can sense and respond to market conditions pertaining to current and future customer needs are well positioned for competitive advantage and consequently have better performance. The argument is, however, based on the assumption that organizations have the ability to discern changes in the market through constantly acquiring, processing, and disseminating market intelligence throughout the firm. Entry into the e-commerce market environment is creating fundamental changes to the way that business is conducted. In the context of e-commerce, a firm that is market-oriented does not necessarily achieve superior business performance. The positive relationship between market orientation and performance depends on the extent to which the web technologies in the firm have been infused into marketing activities and strategies in order to support e-commerce initiatives. When web technologies have effectively assimilated into the relevant business processes, a firm can deliver the market intelligence (customer preferences and competitor initiatives) to the right person at the right time and place. The effective information delivery enables a firm to capture market trends and increase its agility and responsiveness, which will consequently lead to superior performance. On the contrary, a firm with a strong market oriented vision will not necessarily have superior performance if it does not effectively integrate web technologies into its marketing activities and strategies. Therefore, the effective assimilation of web technologies could affect the strength of the market orientation-performance relationship. Based on the above arguments, we propose the following:

H1: The extent to which Web technologies are assimilated into the marketing strategy moderates the relationship between customer orientation and business performance. More specifically, the greater the extent of assimilation, the greater the positive impact of customer orientation on business performance.

H2: The extent to which Web technologies are assimilated into the marketing function moderates the relationship between competitor orientation and business performance. More specifically, the greater the extent of assimilation, the greater the positive impact of competitor orientation on business performance.

METHODOLOGY

This study will use a content analysis of the CEOs letters to shareholders in corporate annual reports as the data source. The examination of the cognitions and mental models of senior management can offer meaningful insights into views on the pursuit of competitive advantage and culture-like elements of the firm such as its strategic orientation (Morgan and Strong 1998). Further, Bettman and Weitz (1983) argued that the CEO's letter, which is a standardized component of the annual report, provides comparable and more objective data on an organization than would interviews.

Material from annual reports has been used to examine corporate strategy (Jarvenpaa and Ives, 1990; Chang et al. 2003; Noble et al. 2002; Bowman 1978), assess customer orientation (Judd and Tims 1991), seek evidence of managerial learning (Barr, et al. 1992) and study causal reasoning and attributions within firms (Bettman and Weitz 1983).

Sample

The sample frame is The Internet 500 which is a ranking of the top 500 businesses by the revenue and profits generated from their online operations. The Internet 500 listing is developed by Inter@ctive Week in conjunction with Ernst & Young and

the Massachusetts Institute of Technology¹. The sampling strategy has two objectives. First, industries will be chosen to reflect a broad range of industry types as suggested by Narver and Slater (1990), and second, the organizations within those industries will be chosen in order to reflect a wide diversity of their prospective use of e-commerce opportunities.

Data Collection

Annual reports for the years 1999 through 2003 are currently being collected for each of the firms. The years 1999 through 2003 were chosen as they fully capture the so-called Internet bubble effect. Further, a longitudinal type of approach supports the view that market orientation is a culture-like phenomenon, therefore, its development and any associated performance benefits will likely take time to emerge.

Content Analysis

Based on a review of the associated literature, coding schemes associated with a customer-centered strategic orientation, a competitor-driven strategic orientation and the extent to which Web technologies are assimilated into the marketing function, are currently being developed. A customer orientation reflects the firms understanding of its target buyers in order to be able to continuously create superior value for them. A competitor orientation reflects can be defined as the ability and will to identify, analyze, and respond to competitors' actions. Web assimilation reflects the extent of organizational assimilation of Web technologies in e-commerce initiatives.

The coding schemes will form the basis from which the numeric counts of the variables will be obtained. The methodology will involve a sentence-by-sentence coding of the letters for the firms and years studies. Text will be converted into quantitative data through a form of cognitive mapping. Cognitive mapping techniques have been used in a variety of application (see Huff 1990), often relying on annual reports as the data source.

In an effort to separate vague managerial clichés from concrete actions and beliefs, the guideline for inclusion of a statement as representative of a variable will be that "it should represent a clear and specific act reflective of the dimension being considered." For instance "We continually strive to create unique customer experiences", "Our Internet-based business applications are moving beyond early adopters to more mainstream corporate America" are statements that would be excluded based on the guideline stated above.

Business performance is operationalized as online revenue. Industry type and firm size serve as control variables.

Data Analysis Strategy

A pure moderator effect implies that the moderator variable modifies the form of the relationship (i.e. the slope of the regression line as represented by the regression coefficient) between the predictor variable and the criterion variable. In order to test for the existence of a moderating effect, we will conduct a moderated regression analysis (Schoonhoven 1981; Sharma, et al. 1981) using multiplicative interaction terms to identify interaction effects among the market orientation, web assimilation, and performance variables. As multiplicative interaction terms give rise to multicollinearity, the independent variables will be mean-centered for this analysis.

In some cases, a different type of moderator called a homologizer (Sharma et al. 1981) will influence the strength of the relationship between the predictor and the criterion variable, but will not interact with the predictor. Therefore, a test will be conducted for a homologizer as well.

.....

Results obtained to date will be discussed at the conference.

1

<http://www.commerce.powertap.net/ZdNet/Inter@ctive/500/>. Accessed 05.14.04.

REFERENCES

1. Barr, P., Stimpert, J., Huff, A. (1992). Cognitive Change, Strategic Action, and Organizational Renewal. *Strategic Management Journal*, 13, 5, 15-36.
2. Bettman, R., Weitz, B. (1983). Attribution in the Boardroom: Causal Reasoning in Corporate Annual Reports, *Administrative Science Quarterly*, 28, 2, 165-183.
3. Bowman, E. H. (1978). Strategy, Annual Reports, and Alchemy, *California Management Review*, 20, 3, 64–71.
4. Chang, K., Jackson, J., Grover, V. (2003). E-commerce and Corporate Strategy: An Executive Perspective. *Information & Management*, 40, 7, 663-675.
5. Chatterjee, D., Grewal, R., Sambamurthy, V. (2002). Shaping Up for E-Commerce: Institutional Enablers of the Organizational Assimilation of Web Technologies, *MIS Quarterly*, 26, 2, 65-89.
6. Deshpande, R. J.U. Farley and F.E. Webster (1993). Corporate Culture, Customer Orientation, And Innovativeness In Japanese Firms: A Quadrant Analysis, *Journal of Marketing*, 57, 1, 23–37.
7. Hooley, G., Cox, T. (2000). Market Orientation in the Transition Economies of Central Europe: Tests of the Narver and Slater Market Orientation Scales, *Journal of Business Research*, 50, 273-285.
8. Huff, A., ed. (1990). *Mapping Strategic Thought*. New York: John Wiley & Sons.
9. Hunt, S.D., Morgan, R.M. (1995). The Comparative Advantage Theory of Competition, *Journal of Marketing*, 59, 1-15.
10. Jarvenpaa S.L., B. Ives (1990). Information Technology and Corporate Strategy: A View from the Top. *Information Systems Research*, 1, 4, 351–376.
11. Judd, V., Tims, B. (1991). How Annual Report Communicate a Customer Orientation. *Industrial Marketing Management*, 20, 4, 353-360.
12. Kohli, A., Jaworski, B. (1990). Market Orientation: The Construct, Research Propositions, and managerial Implications, *Journal of Marketing*, 54, 2, 1-17.
13. Min, S., Song, S., Keebler, J.S. (2003). An internet-mediated market orientation (IMO): Building a theory. *Journal of Marketing Theory and Practice*, 10, 2, 1-10.
14. Morgan, R., Strong, C. (1998). Market Orientation and Dimensions of Strategic Orientation, *European Journal of Marketing*, 32, 11/12, 1051-1073.
15. Narver, J.C., Slater, J.F. (1990). The effect of a market orientation on business profitability, *Journal of Marketing* 54, 4, 20–35.
16. Noble. C., Sinha, R., Kumar, A. (2002). Market Orientation and Alternative Strategic Orientations: A Longitudinal Assessment of Performance Implications. *Journal of Marketing*, 66, 4, 25-39.
17. Peterson, A, Balasubramanian, S., Bronnenberg, B. (1997). Exploring the Implications of the Internet for Consumer Marketing, *Journal of the Academy of Marketing Sciences*, 25, 4, 329-346.
18. Ruekert, R.W., (1992). Developing a Market Orientation: An Organizational Strategy Perspective, *International Journal of Research in Marketing*, 9, 3, 225-247.
19. Schoonhoven, C. (1981). Problems with Contingency Theory: Testing Assumptions Hidden within the Language of ‘Contingency’ Theory’. *Administrative Science Quarterly*, 26, 3, 349-377.
20. Sharma, S. Durand R., Gur-Arie, O. (1981). Identification and Analysis of Moderator Variables. *Journal of Marketing Research*, 18, 3, 291-320.