Strategic Alignment of E-commerce in Retail Firms

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ABSTRACT

About fifty percent of online retailers make a profit, while fifty percent take a loss (Swanson, 2002), and that motivates us to understand the factors that make online retailers profitable. Among other possibilities, the alignment between business strategy and e-commerce strategy might be one of the critical factors that influence a firm’s profitability. In this paper we explore this influence by using Porter’s theory of competitive advantage and Chan’s alignment model.

Keywords

E-Commerce strategy, IS strategy, business strategy, alignment, business performance

INTRODUCTION

Strategic alignment between business strategy and information systems (IS) strategy has been a key issue among executives since the 1980s (Brancheau and Wetherbe, 1987; Niederman, Branchau, and Wetherbe, 1991; Brancheau and Wetherbe, 1996; Computer Science Corporation, 2001). This effort at alignment flows from the concern to improve organizational performance. Alignment improves organizational performance by identifying the critical applications for development, by improving better allocation of resources, and by ensuring that the IS function supports organizational goals at every organizational level (Chan, Huff, Barclay and Copeland, 1997; Lederer & Sethi 1991; Lederer & Mendelow, 1989; King and Teo, 2000; Das, Zahra, and Warkentin, 1991; Premkumar and King, 1991).

The importance of alignment becomes more pronounced in the context of e-commerce. Unlike simple organizational information systems, it extends beyond the boundaries of an organization to include customers, suppliers, shippers, and service providers. A leading IS researcher says, “It is no longer a case of internal alignment alone. Such issues now include alignment with collaborating companies’ business and IT strategies and customer requirements” (Galliers, 1999, pp. 229-234). Companies can no longer view e-commerce as another stand-alone attachment to their business; they must recognize e-commerce as an integral part of strategic objectives (Chang, Jackson, and Grover, 2002).

Though strategic alignment is important for e-commerce, achieving it may not be easy. E-commerce will include not only players within the organization, but also customers, suppliers and other partners like banks and financial institutions. Thus, the broader nature of e-commerce makes it difficult to align with business strategy. Additionally, Internet has propped up several new technologies and processes which encourage experimentation among e-commerce firms (Porter, 2001). This experimentation might lead to underutilization of e-commerce resources. When a firm’s business strategy is not able to use existing IT capability to its maximum potential, IT resources are underutilized (Tallon, 2000) and underutilization of resources leads to misalignment.

Keeping this in view, this paper seeks to contribute to e-commerce literature by focusing on two specific goals. First, the paper explores the extent to which companies with existing brick-and-mortar businesses have successfully aligned their e-commerce strategies with their business strategies. Second, the paper attempts to provide insights into the performance implications of alignment between business and e-commerce strategies, in the light of prior business strategies, specifically focusing on Porter’s theory of competitive advantage (1980) and Chan’s alignment theory (1997).

1 The NEBIC theory (Wheeler, 2002) suggests that the IS strategy precedes business strategy in hypercompetitive markets. However, in this research, we have considered the retailers who had an existing brick-mortar model before they started doing business over the Internet. Thus, the business strategy already existed and there is a need to align e-commerce strategy with business strategy.
PORTER'S THEORY AND E-COMMERCE COMPETITIVE ADVANTAGE

Researchers suggest that Porter’s theory of competitive advantage applies even in the online e-commerce environment (Lumpkin, Droege and Dess, 2002; DeVries, 2001). Porter’s theory states that companies can pursue three generic strategies in order to gain competitive advantage. The strategies are cost leadership, differentiation, and focus.

Cost leadership strategy requires firms to become the lowest cost producers in a particular industry. Cost leadership is achieved by performing all activities across the value chain at a cost lower than that of competitors. More effort is devoted to cost control so that above-average returns can be obtained even with low prices. Companies pursuing cost leadership will seek customers who care more about price than about image or novelty (Miller, 1988). They can obtain cost advantage by either decreasing the cost of the goods sold or by decreasing the operating expenses (Ellis and Calantone, 1994). Wal-Mart is an example of a cost leadership firm. It has the reputation of competitively sourcing its inventory from various parts of the world in order to maintain its cost leadership. For Wal-Mart, the product brand is unimportant and the reputation for quality is marginal (Lumpkin, Droege and Dess, 2002).

Differentiation strategy aims to create a product or service that customers see as unique. Porter argues that by creating customer loyalty and price inelasticity, this strategy erects competitive barriers to entry, provides higher margins, and reduces the power of buyers who feel such products lack acceptable substitutes. Developing a well known brand image, a strong reputation, and mass customization are some of the important characteristics of differentiation strategy. The Internet allows sellers to collect information from online registration, cookies, and web-server log pages. By using data mining and collaborative filtering, sellers also have the scope to interact on a one-to-one basis with the buyer (Dewar, Jing, and Seidman, 2000). Thus, the Internet can facilitate the differentiation in the products and services offered to the customers at no extra cost. Levi Strauss uses the Internet effectively to achieve differentiation in its products (Dewar et al., 2000). Similarly, Staples uses its website to differentiate its services and to provide better customer service, which its CIO terms as “making customer’s life easier” (Hanharan, 2003).

For a Focus strategy, the focuser selects a specialized segment or group of segments in the industry and tailors its strategy to serving them to the exclusion of others. Many retail stores like Guess, Banana Republic, and Gap follow this strategy even with their online stores. They do not serve everybody; they serve only their particular segment. The Internet allows online retailers to focus on reaching out to their specific segments.

RESEARCH MODEL AND HYPOTHESIS

Chan et al. (1997) suggest a model of alignment between business strategies and IS strategy. They propose and empirically verify that alignment between business strategies and IS strategy will improve business performance and IS effectiveness. Their research, however, focuses on intra-organizational systems. Parallel to their work, we propose the following research for the e-commerce domain as shown in figure 1:

In this model, alignment between business strategy and e-commerce strategy affects the business performance. We term this alignment construct as strategic e-commerce alignment. With better alignment, e-commerce resources are better utilized to achieve the business objectives, and resources are less under-utilized. Better alignment also implies that e-commerce managers and business managers understand each other’s objectives. Thus, we propose:

Proposition: Increase in e-commerce strategic alignment improves business performance

![Figure 1.](image-url)
PROPOSED RESEARCH METHODOLOGY

The research for this paper is divided into three phases. In the first phase we test for the validity and reliability of the instrument used to measure e-commerce strategy. In the second phase we measure the independent variables. At the end of the second phase we obtain the degree of alignment for different retailers. In the third phase we compare the business performance for companies with high degree of alignment to those with low degree of alignment.

In the following paragraphs, we explain the sample selection and the measurements used for our research.

Sample

As strategy is a relative phenomenon (Hambrick, 1984), it is advisable to control for cross-industry differences. This has prompted us to limit our study to the retail industry. The retail industry was chosen over other industries because retail industry was early to adopt consumer e-commerce and is very active in using it. We consider only those retailers who already had brick-and-mortar businesses before they started selling their products online. We do not consider the “pure-play” retailers, i.e., retailers whose sole channel of business is through online sales.

Measurements and data collection

Realized Business Strategy

This study considers realized business strategies as opposed to stated strategies because stated or intended strategies may not translate into actions (Chan et al., 1997). The Profit Impact of Market Strategies (PIMS) database has been used to operationalize competitive strategies in strategy-related research (e.g. Anderson and Zeithami, 1984; Hambrick, 1984; Miller and Dess, 1993). We adopt the same method, with multivariate operationalization. Prior research finds that a firm might adopt more than one of Porter’s strategies (DeVries, 2001; Dess and Davis, 1984). However, the trade-off between pursuing either strategy can be evaluated by observing where the firm falls on the continuum (DeVries, 2001). We use PIMS data to classify companies pursuing different strategies. To overcome the disadvantages of using the PIMS database, we validate the measure by using content analysis as suggested by Chang et al. (2002).

Realized E-commerce Strategy

A Likert-type questionnaire is being developed to measure this construct. We use the activities undertaken in e-commerce to measure the realized e-commerce strategy. Thus, activities in e-commerce that promote cost leadership, differentiation, or focus strategy across the value chain are included as items in the questionnaire. The survey will be administered to managers of retailers that use e-commerce. On the basis of the survey we will evaluate the extent to which the firm pursues the different strategies mentioned by Porter.

Strategic e-commerce alignment

This construct is defined as the degree to which business strategy and e-commerce strategy match. Retailers that have the same business strategy and e-commerce strategy are highly aligned. Based on the realized business strategy and e-commerce strategy, which are measured on a continuum, we measure the degree of strategic e-commerce alignment.

Business Performance

Return on investment (ROI), return on sales (ROS), revenue growth, and market share are popular measures in strategy and IS literature that are used to measure a firm’s performance (e.g., Miller, 1988; Miller and Dess, 1993; Sabherwal and Chan, 2001; Choe, 2003). These measures are used either as perceived measures or as actual measures from the database. Return on sales (ROS) indicates operational efficiency, and is characteristic of companies following cost advantage strategy. Thus, ROS cannot be used as an indicator for the dependent variable. Therefore, we will use only measures like ROI, revenue growth, and market share.

Control Variables

Industry type and firm size are taken as control variables for a similar study on e-commerce and corporate strategy (Chang et al., 2002). We control for industry type by considering only the retail industry. We control for firm size by considering the total assets, total number of employees, and total sales for each participating firm. These data will be collected from PIMS data for each retailer, for the years after it started doing business online. Based on these size variables, the retailers will be divided into three groups: large, medium, and small.
CONCLUSION

When existing brick-and-mortar retailers undertake e-commerce initiatives, strategic alignment between their business strategy and e-commerce strategy can be an important factor that determines their success. Attempting to justify that position, this research analyzes the previous research done in information systems and juxtaposes it with the e-commerce environment. The paper outlines a methodology to empirically test the effect of strategic alignment of e-commerce and business strategy on firm performance.

REFERENCES