Predicting customer behavior in the market-space: a study of Rayport and Sviokla's framework

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Abstract

The rapidly evolving phenomenon of the World Wide Web and the creation of a new international arena for electronic commerce have expanded the possibilities for the marketing of products and services. The role played by customer behavior in the market-space is still not entirely understood and calls for investigations into the significance of customer attitudes and loyalty. In this article, a model is developed; it examines the significance of content, context, and infrastructure in determining customer loyalty. An empirical study involving 145 subjects was conducted to test this model and to gain a better understanding of the relationship between customer belief about a Web site (specifically, an e-publishing site) and customer behavior (such as attitudes toward brand and customer loyalty).

The results indicate that customer attitude is influenced by belief about brand equity (value), which is affected by the content, context, and infrastructure. Customer loyalty is determined by attitude and belief about the context in which the products or services are offered. These findings provide a better understanding of customer behavior associated with Web sites in the market-space, also confirm the proposition of Rayport and Sviokla that 'customer loyalty is developed at the context level'.
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1. Introduction

The rapidly evolving phenomenon of the World Wide Web (WWW) has resulted in a paradigm shift that has greatly influenced business operations [4,7,22,42,43,45], mainly through its promotion of the growth of electronic commerce. Today's business managers, therefore, must not only seek to retain their competitiveness in the traditional marketplace, but must also seize the opportunities offered by the electronic marketplace [50]. In this market-space, a product or service no longer needs to be physically present. Instead, the information about such products or services can be formatted and presented to customers through electronic media. Most e-companies begin by designing and launching Web sites to gain inexpensive publicity, display their products and services, and provide a method whereby customers may purchase what the company is offering. As a result, the new and evolving market-space already offers a variety of physical goods (e.g. books, personal computers, clothing), digital goods (e.g. software), as well as for

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e-publishing available through subscription (e.g. electronic newspapers).

To help business managers realize the full potential of the market-space, Rayport and Sviokla developed a framework for creating new values for customers [44]. In this framework, a customer's perceived value of a product or service consists of the three basic elements, *content* of the product or service that companies are offering, *context* of how companies are offering the product or service, and *infrastructure* that enables the transaction to occur. In the traditional marketplace, content, context, and infrastructure are bundled together, usually by the same company, to establish brand equity, a depiction of customer-perceived value provided by the product. However, the separation of these three elements is easily done in the market-space. By disaggregating content, context, and infrastructure, the company can ''create new ways of adding value, lowering costs, forging relationships with non-traditional partners, and rethinking 'ownership' issues''.

To illustrate this point, Rayport and Sviokla use a newspaper as an example. In the traditional marketplace, news and information are provided to subscribers through physical delivery. The publisher often creates the value for its subscribers by integrating content (news, business, sports, etc.), context (format, editorial style, logo, etc.), and infrastructure (printing plant and physical distribution). However, in the market-space, the content of an on-line newspaper is less restricted and can come from single or multiple publishers. To offer an on-line newspaper, an electronic format is designed; this constitutes the context of the newspaper in the form of a homepage. The infrastructure to enable such an offering includes digital networks, telephone lines or cables, and personal computers or Internet-capable devices equipped with modems or other connectivity devices, none of which are owned by the content or context providers. The characteristics of the Internet provide an impetus to disaggregate these three elements and, therefore, publishers of electronic newspapers need not support the value activities for all three elements, as in the traditional marketplace.

Relying on the concept that content, context, and infrastructure can be disaggregated, Rayport and Sviokla used many existing cases to exemplify the creation of new values for customers. Furthermore, several succeeding reports have extracted this idea to examine the strategies for the new and rapidly evolving channels specific to companies operating within the marketplace [8,27,34,37,41]. However, these studies are confined to the scope of qualitative exploration. The quantitative linkage between the three elements and transactions has generally been ignored.

The purpose of this paper is therefore to investigate the quantitative linkage between Rayport and Sviokla's framework and transaction in the market-space under the premise that the three elements are disaggregatable. In particular, this study attempts to determine how well this three-element framework can explain customer attitude and customer loyalty toward the subscription to an e-publishing service in the market-space. This inquiry is very important for the following reasons. First, it fills the research gap, as stated above, by adding quantitative analysis. Second, it provides another approach to test this framework. Prior studies document, the application of this framework at the level of case studies, yet no notable, extant research examines its descriptive validity at the level of large samples. Third, the results of our study provide suggestions for on-line publishers to develop strategies to compete in the market-space. Thus, we present a model of a Web user's perceptions about a market-space product from a perspective of Rayport and Sviokla's framework. In addition, multiple regression is applied to explore the empirical strength of the relationships in the proposed model.

2. Customer behavior in the market-space

Just as in the traditional marketplace, companies need to build customer loyalty as well as attract new customers in the market-space; however, the special characteristics of the Internet have altered the rules for marketing. In fact, customer acquisition and retention are considered the biggest challenges for on-line companies today [20]. The Internet provides a unique marketing channel that not only allows multilateral communications among companies and their customers [21], but also grants the possibility of establishing a one-to-one relationship between the provider and the buyer [18]. Through the market-space, firms can identify their customers' needs more precisely and thus improve customer satisfaction as well as retention