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Abstract

Electronic markets have opened a new type of market for customers and organizations, and have become a serious alternative to traditional, non-electronic markets. There has been little comparative analysis of these two market types, and the market strategies that are adopted in each. This paper explores the differences between traditional and electronic markets, identifies possible market strategies related to electronic markets, and investigates factors associated with the adoption of these strategies. Our empirical analysis will provide an insight to reasons for adopting different market strategies.

Traditional vs. Electronic Markets

With the expansion of the Internet, electronic markets have begun to emerge as an alternative forum for business transactions. We define traditional markets as non-Internet markets, where buyers and sellers rely on non-electronic media for market-related activities.

These two market types differ in a number of ways.

1. *Location constraints and the resulting allocational inefficiency.* Traditional markets are constrained by location, which reduces consumer utility [Hoteling 1929]. This constraint does not exist in electronic markets. For consumers who have access to electronic markets, such markets offer allocation efficiency [Bakos 1991].
2. *Product differentiation and customization.* Product differentiation is an important –and costly--competitive strategy [Perloff et al.1997]. Electronic markets provide customization opportunities by capturing information about customers and their actions [Choi et al. 1997 Ravindran et al. 1996].
3. *Distribution channels and different roles for intermediaries.* Distribution channels and intermediaries play important roles in relationships between buyers and sellers [Gerstner and Hess 1991]. In electronic markets, the traditional intermediaries disappear or change drastically in nature [Benjamin and Wigand 1995; Baily and Bakos 1997].
4. *Degree of price information and cost of searching for the best price.* There is a cost associated with searching for the best price. In electronic markets, this cost is lower due to the availability of free information on demand [Bakos 1991].
5. *Types of advertising*. Advertising is the modern method of identifying customers and firms [Stigler 1961]. As advertising costs increase, the potential for monopoly pricing increases, which creates market inefficiencies and reduces customers' welfare [Stahl 1994]. Advertising in electronic markets serves the same purposes as those in traditional markets (providing information, increasing demand, changing the elasticity of demand, creating barriers to entry, and product differentiation [Choi et al. 1997]). However, electronic markets offer novel methods of advertising. Advertising in traditional markets is of the broadcasting type, with little control over who receives the message. In electronic markets, it is possible to target select group of customers and to monitor results more closely (using measures such as hit rate). Furthermore, the pull-method of advertising offers new possibilities for advertising in electronic markets. Hence, advertising in electronic markets has more customization potential.
6. *Extent and type of competition*. The cost of search for the best price allows sellers the advantage of the monopolistic pricing and special strategies [Bakos 1991; Varian 1992]. This has been demonstrated in the oligopoly power in the food and tobacco industries [Lopez and Bhuuan 1998]. The reduced search cost in electronic markets increases competition, increases customers' utility by improving the match between their needs and products, and move the market towards the optimal market allocation [Bakos 1991, 1997].
7. *Size of the potential markets*. The global accessibility of electronic markets increases the potential size of this market well beyond traditional markets, and creates more equality of access among sellers of various size and market power. There is a higher degree of cultural, social, and preference diversity in electronic markets, which demands a different business approach to the product design, marketing, and their related business activities..
8. *Access Constraints*. Access to electronic markets is constrained by the knowledge of and access to the required technology. These constraints exclude certain types of customers from participating in electronic markets. Furthermore, customers do not have physical access to products in this market, which makes it an inadequate market medium for certain products, and could at best be a supplement to traditional markets.

The Model

Given the distinct differences between traditional and electronic markets, little is known about business strategies for operating in one as opposed to the other, and factors that are associated with the choice of such strategies. We distinguish two types of strategies: replacement and complementary. In the replacement strategy, the organization opts to act in electronic markets exclusively and use it as a substitute for traditional markets for its business activities. In the complementary strategy, electronic markets are to complement and enhance the organization's market activities in its traditional markets. In this paper, we explore factors that are associated with the choice of these strategies.

We conjecture that many organizations prefer the complementary strategy [Lederer et al. 1997]. But this strategy is not uniform and has its own sub-strategies. We distinguish three categories of market-related business activities, which can be performed in electronic markets:

1) Pre-transaction information exchange, such as advertising, or providing information about the product, price, company, and competitor
2) Transactions, such as ordering, paying for, and the delivery of product
3) Post-transaction information exchange, such as customer service, customer survey, warranty, and recall.

In this research, we explore the organizational and external factors associated with the selection of various combinations of the complementary strategies. Figure 1 summarizes our model.

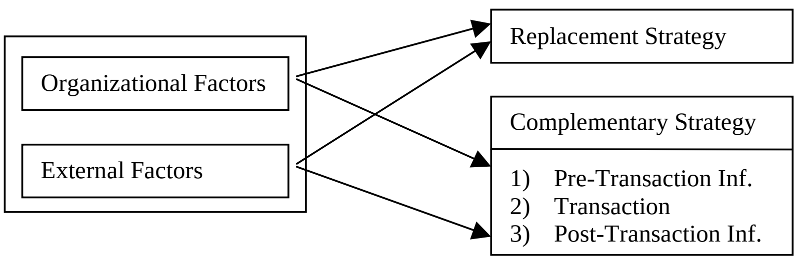

Figure 1. The Conceptual Model

The Factors

Organizational and external factors are the constructs, which we posit to influence the choice of market strategy. From our survey of literature, we have identified possible organizational factors as; technical competency, reputation, products, advertising policy, and pricing policy. The candidate external factors are the extent of competition, types of intermediaries, and industry and customer types. Figure 2 summarizes the literature survey on these factors.

We conjecture that the factors related directly to the differences between traditional and electronic markets play an important role in the determination of market strategies.

Methodology

We are in the process of identifying data sources. We identify companies that use electronic markets and determine their market strategies. Data for these companies will come from the secondary sources as well as the direct data collection. We will use a number of statistical techniques for the analysis of our model.

The contribution of this research is in recognizing the differences between traditional and electronic markets, and in identifying business strategies stemming from these differences. Our empirical analysis will shed light on organizational and external factors associated with the selection of market strategies.

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Factors	Variables	Description
Organizational Factors	Technical Competency	A company can have benefits resulting from an innovative application of information technology [Clemons and Row 1991]. The effective usage of technology can offer a competitive advantage over competitors with more limited technological abilities [Booth and Philips 1998].
	Name recognition	Reputation is important for selling certain products [Choi et al. 1997]. The effect of reputation depends on the nature of product and competition [Kreps and Wilson 1982].
	Products	By offering multiple products, the manufacturer can tailor the products to customers’ preferences [Lilien et al.1992]. Also, some products sell better on the Internet than others (music and books) [Bailey and Bakos 1997].
	Advertising	Advertising acts as efficient sales assistant. A two-way interaction with customers improve market efficiency [Wernerfelt 1994].
	Size and age of company	The age and size of a company can greatly influence how a company operates and reacts to its environment [Mohan-Neil 1995].
	Pricing and marketing strategy	Information products are often bundled. A multi-product company can have a higher porfit by offering a bundle of information goods than by offering the same goods seperately [Bakos and Brynjolfsson 1996].
External Factors	Extent of competition	The sale of product is affected by the extent of competition in the market. This may require a company to have through knowledge of the information of competitors in the markets [Robinson 1986].
	Intermediary	Intermediaries provide essential services such as certification, payment services, quality assurance, and copyright clearing as well as distribution [Choi et al. 1997].
	Type of Organization	In a survey research, Lederer et al. (1997) identified eight types of organizations in the Internet Mall. Organizations’ structure or type may impact the choice of a strategy.
	Industry	Information cascading may promote the choice of one strategy over another [Mason et al. 1997].

Figure 2. Summary of Literature Survey on Factors