Consumer Opportunity, Ability and Motivation as a Framework for Electronic Market Research

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A b s t r a c t

Past research has focused on transaction cost economics as a framework for electronic market (e-market) research. This takes a simplistic view of consumers as economic agents whose primary decision-making criterion is the minimization of transaction costs. We propose that the factors that potentially determine e-market success or failure can be better identified using the Ability–Motivation–Opportunity framework from consumer behavior. This looks at additional factors not considered by transaction cost-based research and takes a less simplistic view of consumers. We hypothesize that factors that increase consumers' opportunity to participate in e-markets, their ability to do so, and their motivation to purchase through the on-line channel, will determine the ultimate success of e-markets. This provides a new direction for electronic market research.

Keywords: Electronic markets, research framework, consumer behavior, ability–motivation–opportunity framework

A u t h o r s

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INTRODUCTION

An important electronic commerce research issue is to identify the factors that affect electronic market (e-market) success in the global economy, individual industries, and specific electronic markets or electronic sales channels. Why do some e-markets succeed while others fail? The purpose of this article is to propose a new framework for analyzing and predicting the impact of e-markets on each of these levels. Our study looks at these issues from the consumer perspective. The factors that provide incentives for sellers and transaction intermediaries are outside the scope of this paper.

Past research has focused on transaction cost economics as a framework for electronic market research (Bakos 1991; Benjamin and Wigand 1995; Gurbaxani and Whang 1991; Lee 1998; Malone and Rockart 1991; Malone, Yates and Benjamin 1987, 1989). This takes a simplistic view of consumers as economic agents whose primary decision-making criterion is the minimization of transaction costs. We propose that the factors that potentially determine success or failure can be better identified using the Ability–Motivation–Opportunity framework from consumer behavior (MacInnis and Jaworski 1989). This looks at additional factors not considered by transaction cost-based research and takes a less simplistic view of consumers. We hypothesize that factors that increase consumers' opportunity to participate in e-markets, their ability to do so, and their motivation to purchase through the on-line channel, will determine the ultimate success of e-markets.

The following sections describe the findings of our study. We first identify factors that affect consumer opportunity, ability and motivation. We then combine this into an overall analysis framework. Finally, we identify managerial implications that can be projected from our study and discuss the conclusion and research implications of our study.

Factors That Affect Consumer Opportunity to Use Electronic Markets

Increasing consumer opportunity to access e-markets affects the success of e-markets across the economy as a whole. Lack of opportunity for consumers to access e-markets makes the remaining issues moot. Consumer opportunity is a necessary, but insufficient, condition for e-market success. Factors that affect consumer opportunity include existence of an information infrastructure — such as the Internet and World Wide Web, availability of this infrastructure for commercial purposes, consumer access to personal computers and modems that enable them to access the infrastructure from home or at work, and Internet service providers (ISPs) that offer this access. This is a primary reason that the current potential for e-market success in the United States is far greater than in areas like Africa that do not have a widely available information infrastructure.

Factors That Affect Consumer Ability to Use Electronic Markets

Given that consumers have the opportunity to participate in electronic markets, the next issue is whether they have the ability to do so. Increasing consumer ability to use e-markets affects the success of e-markets in an individual industry involving a set of related products. Lack of consumer ability makes their motivation to use a particular e-market a moot point. Ability, as opportunity, is a necessary, but insufficient condition for e-market success.

A first factor is the consumer's level of computer literacy. Lack of computer literacy makes consumers unable to use an e-market, even if they have access. Other factors relate to consumer ability to gather product information in the e-market. Either the consumer must have personal knowledge of the industry's products, or description standards must exist for sufficiently describing the products through the on-line interface, or a broker must be available that can support consumer information-gathering and purchase decision-making. Consumers often show their ability to purchase products through their current use of on-line channels for searching for production information (Ramaswami, Strader and Brett 1998).

Consumer ability as a factor that affects e-market success can be illustrated by examples in the music and book industries. Jason and Matthew Olim founded CDnow Inc. from the basement of their Ambler, Pennsylvania home. Jason Olim, a jazz fan frustrated by skimpy selections in music shops, came up with the idea of a cyberstore that could offer every jazz album made in the US and 20,000 imports. Shoppers place their orders with CDnow (cdnow.com), which, in turn, contacts distributors. Most disks are delivered to the customer's door in 24 hours (Rebello, Armstrong and Cortese 1996). E-markets are successful in this industry because consumers have knowledge of the product, it is easy to describe the product being offered (artist and title), and there is no need for a transaction broker.

Books are another product that consumers purchase on-line. One bookseller on the Web is Amazon.com Books. Their site advertises a spotlight book, book of the day, titles in the news, featured books, and books that are hot this week. Some of their books are discounted by as much as 30%. By clicking on book titles, and some authors, more detailed information can be accessed (Amazon.com 1998). It is no longer necessary either to go to a bookstore to buy a book or to find mail-order bookstores through a print advertisement. Again, e-markets are successful in this industry because consumers have knowledge of the product, it is easy to describe the product being offered (author and title), and there is no need for a transaction broker.

Factors that Affect Consumer Motivation to Use Electronic Markets

Given consumer opportunity to access e-markets, and their ability to participate in them, the remaining issue is to motivate the consumer to use a particular e-market, or on-line sales channel, in a given industry. Consumer motivation is of primary concern to managers considering, or currently using, an on-line sales channel for selling their products, and several factors affect the level of motivation for consumers to use a given e-market.

Consumers can be motivated to use a site by reducing their purchase costs. Product prices, or transaction charges such as those for using a broker, can be reduced in the on-line channel to draw consumers to the site. It also reduces the costs to search for information about product prices, features, and so forth. For digitizable products it may also be possible to reduce distribution costs given the ability to electronically distribute the product instead of using traditional physical distribution. This is particularly possible for products such as computer software. Consumers can also be educated to see that in many instances it is more convenient to use e-markets than to use traditional markets (such as retail stores). The purchase type may also determine whether an e-market is used. E-markets are especially useful for analytical purchases, but only have limited use for impulse purchases.

The final factor, and likely the most important, is reduction of risk as a consumer motivator to purchase in e-markets. A perceived lack of on-line security, potentially resulting in stolen credit card numbers, and so forth, can result in e-market failure. Additionally, higher-priced products that increase potential loss from unscrupulous sellers may reduce the likelihood of success for an e-market. There is also a distribution risk in the form of potential damage to products that need to be physically shipped. Strategies to increase consumer motivation to use a particular electronic market (or on-line sales channel) are discussed in the managerial implications section.

ELECTRONIC MARKET IMPACT ANALYSIS FRAMEWORK

Our framework, shown in Figure 1, illustrates how various issues combine to produce electronic market success or failure. While we focus mainly on consumer issues, this framework also points out how sellers and intermediaries are important components.

Electronic market success is associated with the number of transactions completed through the on-line

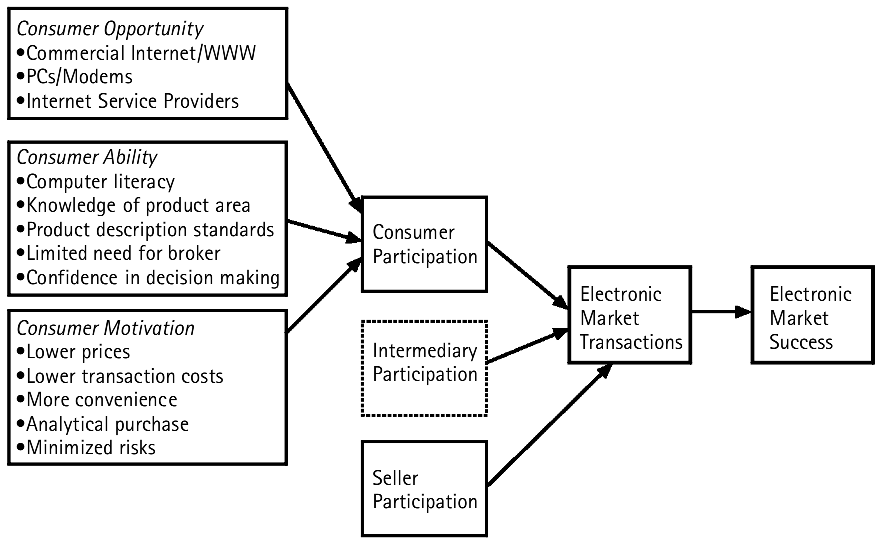

Figure 1. Ability–Motivation–Opportunity Framework for Electronic Market Research

channel. The more transactions completed through an e-market, the greater the success of the e-market. Transactions involve not only consumer participation, but also seller participation. Intermediary participation is shown by a dotted box because it may or may not be required depending on the nature of the transaction. Factors that affect seller and intermediary participation are outside the scope of this study.

Figure 1 focuses on the consumer issues related to electronic market success. It illustrates how the individual factors can be combined into an analysis framework. Some of the major issues related to consumer opportunity, ability and motivation are listed on the far left of Figure 1. As the examples illustrate, if consumers do not have the opportunity to participate in e-markets then e-markets will fail. If consumers have the opportunity to participate but not the ability then e-markets are likely to fail in an industry. Finally, if consumers have the opportunity and ability to participate, but not the motivation to use a particular e-market, then that specific e-market, or on-line sales channel, is likely to fail. E-market successes are associated with situations where consumer opportunity, ability and motivation all coexist.

MANAGERIAL IMPLICATIONS

In this study we identified specific factors that affect each of the consumer issue areas. The managerial implications that arise from our study are associated with strategies that can be employed to increase consumer motivation. Opportunity and ability are often outside the scope of managerial control, but companies may be able to motivate customers to buy their products through an on-line channel.

Increasing Opportunity. It may be difficult for an individual company to increase their customers' opportunity to purchase on-line, but the increase in family PC ownership, and use of the Internet through ISPs, may increase opportunity across the economy as a whole. This has positive repercussions for firms that want to move toward an on-line sales channel. Consumer opportunity likely falls within the realm of public policy. If governments feel that electronic markets benefit the economy, then we may see public money being spent to increase access. In 1998 the US government showed support for electronic markets through the Internet Tax Freedom Act (ITFA). On 26 February 1998, President Clinton endorsed the ITFA. He is quoted as saying, 'I support the Internet Tax Freedom Act now before Congress, because it takes into account the rights of consumers, the needs of businesses, and the overall effect of taxation on the development of Internet commerce. We can't allow unfair taxation to weigh [the Net] down and stunt the development of the most promising new economic opportunity in decades' (Internet Tax Freedom Act 1998).

Increasing Ability. Increasing customer ability may also prove difficult for companies, but, as younger people who have used personal computers throughout their education become adults, the proportion of consumers who have the ability to participate in electronic commerce will increase. Companies may also use traditional marketing methods to educate their customers about the new on-line channel. Getting customers to use the e-market will give them experience with it and increase their confidence in their ability to participate. Finally, industries that do not have common product description standards can develop them so customers can be confident that they know exactly what they are buying. These description standards should use text and graphics for now, but may use other multimedia, such as video and audio that are commonly available on the Web, in the future. If firms in an industry see a benefit to increasing their consumers' abilities to participate in electronic markets, then industry consortiums may be formed to address the issues involved.

Increasing Motivation. Individual companies have the most direct effect on their customers' motivation to purchase on-line. They can offer lower product prices in the e-market, or they can reduce transaction charges. They can also educate their customers about the convenience of using the e-market. But, the most important issue for companies to address is to minimize their customer's risk related to e-market transactions. Offering a secure site where customers are confident that they will receive the product that they purchased quickly and in the right condition is vital. While being the low-cost provider in an e-market is a good short-term strategy, being a trusted seller in an e-market is a better long-term strategy. Being a trusted early entrant in an e-market can result in long-term success and a large number of loyal customers. We have seen this with Amazon.com and CDNow.

CONCLUSION AND RESEARCH IMPLICATIONS

Previous electronic market research took a simplistic transaction cost minimization view of consumers. This has been useful up to a point, but future electronic market research needs to look more deeply at consumer behavior in these new on-line markets. Our framework identifies a number of electronic market research issues and illustrates how they are related to each other. The overall conclusion of this study is that e-market success, or failure, is likely affected by consumers' opportunity, ability, and motivation to participate in e-markets. This provides a new direction for future e-market research.

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