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# E-MARKETS: FAILED BUSINESS MODEL OR BARRIERS TO DIFFUSION OF INNOVATION?

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## Abstract

*Businesses to business (B2B) marketplaces are not having the impact that they are supposed to. This problem is evaluated through the lens of diffusion theory to explain some of the factors that are preventing buyers and sellers from taking advantage of this innovation.*

**Keywords:** E-markets, business-to-business, diffusion of innovation, supply chain management

## Introduction

As the “gold rush” days of the Internet economy have come to an end, business prospectors are being forced to turn towards the fundamentals and practices that have made good business sense over the years. In the area of supply chain management, there has been much attention focused on e-marketplaces and the positive benefits that they can add to an organization’s purchasing capabilities. Yet surprisingly, many e-markets have struggled and failed to deliver on the promises that they have made. Although they have been well publicized and promoted, they have failed to attract the numbers of buyers and sellers that the business model predicted. Uncovering the causes of this failure are the goals of this research.

## E-markets

In an e-market, buyers and sellers are brought together, information is exchanged and products and services are bought and sold while payment transactions take place. Rather than happening in a physical space, all of these exchanges can take place through a neutral on-line website. (Turban, 1999) From the perspective of the sellers, an e-market opens up their service and products to a larger number of customers. Further, the increased communication with potential buyers maximizes input in design decisions and can reduce inventory across the entire supply chain. For the buyer, they now have a much great choice of products than before and an increased ability to find the best value at the lowest price. Additionally, e-markets can help facilitate complex transactions between the buyers and sellers. An e-market can fulfill a portion of traditional procurement process from need identification, supplier selection to the business transaction. (Bakos, 1998)

## Research Question

Despite the potential for value creation within participating firms, e-markets have gained little momentum and in many cases are failing. Of the 50 marketplaces interviewed in a study conducted during June 2000 (McKinsey & Co.) 20% are no longer operating today. A Forrester Research project estimates that of the more than 1000 exchanges in existence today, less than 200 will survive to 2003 (Tedeschi, 2001). The research question that is addressed in this work is why are buyers and sellers failing to adopt and use e-markets and what leads to their successful adoption.

### The Business Model

Five distinct models for conducting business in e-markets have emerged (McKinsey & Co., 2000) in the last 2 years. Each of these five models allow the buyers to either execute a particular purchasing activity or enable them to better perform some function through the use of better tools (see figure 1). All of the models have the potential to create a short run gain, but only two of them have the ability to generate long run value for the buying organizations. Unless an e-market can provide a way to continue to create value in the long run, the viability of the marketplace is questionable in its present form. Of these five models, only project/specification managers and supply consolidators have the ability to create a long run value for the buying firms (McKinsey & Co., 2000). The project/specification manager is able to create value by providing tools that reduce rework, excess inventory and other costs. The tools are uniquely tailored to a particular industry, so they contain valuable domain specific information that is not easy to replicate. The supply consolidators are able to create long-term value for buying organizations by providing information that allows for search capabilities that enable the organization to evaluate trade-offs between cost and quality in their purchasing decisions. Using this framework, many failures in e-markets can be blamed on the lack of a business model’s ability to create long run value for both the buyers and the sellers. For the purpose of this research, only the project/specification manager and supply consolidator models will be examined.

- 1) Project/specification managers – provide tools and support for complex processes and projects.
- 2) Supply consolidators – a marketplace that brings together the products of many different suppliers to increase the buyer options.
- 3) Liquidity creators – brings together buyers and sellers of low-volume or non-standard products.
- 4) Aggregators – a market where demand is combined across many buyers to achieve greater market power to force lower prices.
- 5) Transaction facilitators – markets that improve efficiency and automate the back-end processes of transactions involved in the execution of a purchase.

Figure 1. E-market Business Models

### Theoretical Aspects

Despite the potential for successful creation of value for the participating firms, e-markets have yet to have the predicted impact and in many cases are failing at an alarming rate. In trying to understand the failure of acceptance of e-markets by the buyers and sellers, we turn to theory of diffusion of innovation. Two variations of Roger’s classical diffusion of innovation model are useful in explaining the lack of adoption of e-markets. First, Markus (1987) demonstrates a potential cause for the slow initial adoption of interactive communications media is the lack of motivation to be a first mover. As an early adopter of email, you have limited numbers of people that you can communicate with. Likewise, as an early user of an e-market, an organization will find that there are few other buyers and sellers involved to interact with. Later, once a critical mass has been reached, adoption will grow at a much faster rate. This can in part explain the lack of expected growth in e-markets today.

A second variation of diffusion theory (see figure 2) looks at role that knowledge barriers play in the adoption process. Even when organizations are aware of and interested in adopting a technology, the lack of technical knowledge can be a barrier to the adoption of a new innovation within that firm. In the case of e-markets, factors identified by non-adopting firms play a similar role. If the marketplaces (acting as a mediator) can reduce both the barriers to the buyers and the barriers to the sellers, e-markets can succeed and gain the critical mass necessary to be a viable place to conduct commerce. The organization that operates the neutral e-market must provide services that reduce the effect of the barriers that are preventing diffusion.

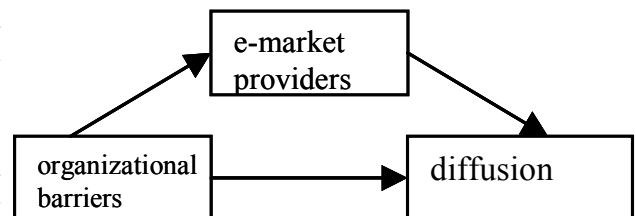


Figure 2. Model for Diffusion of Innovation

## Factors Affecting Adoption

Unlike many adoption models, an e-market has to succeed on two different fronts: with the buyers and the sellers. This added dimension give the e-markets two different sets of barriers to acceptance that they need to overcome. From the perspective of the sellers, the following factors prevent adoption: fear of being commoditized, lack of volume and lack of understanding of the value creation. The fear of being commoditized is simply the concern that products will be listed in a very general way such that it will be difficult to tell one competitor's offering from another. In this, unique products are treated like commodities. (Cleary, 2001). The confusion that exists about the creation of value stems from the problem that e-markets have two different types of customers, the sellers and the buyers. The buyers see e-markets as a place to find reduced prices where as the sellers see it as a place to conduct collaborative design. This confusion is further enhanced by the e-markets themselves who see the sharing of information as the key value created. While each of these aspects is part of the equation, e-markets can and will need to do more to sustain the long lasting value creation needed. (McKinsey & Co.O, 2000) Of the five models outlined earlier, only project/specification managers and supply aggregators are currently offering this.

As far as the buyers are concerned, they are affected by limited functionality, issues of trust, lack of volume and limited offerings by an exchange. (Tedeschi, 2001) It will be important for e-markets to increase the offerings to the buyers just as they need to do for the sellers. Trust has been identified by Brynjolfsson and Smith (2000) as an important component in Internet markets. The sponsoring organization of the neutral market has the capability to foster this relationship through its products. Lack of volume to a buyer means that there are few sellers or products to chose from.

## Conclusion

E-markets have the potential to create value for both their buyers and sellers, but they have yet to realize this potential. This research has identified potential barriers to the success of e-markets in an attempt to explain why they are failing and to understand the potential areas for successful change. To increase the diffusion rate of the e-market technology, the organizations operating these neutral exchanges will have to play an important role in lowering the barriers identified in this work.

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