

E-Commerce Market Place - Business Models today and tomorrow

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Abstract

This paper describes the basics of the E-commerce marketplace. I present a definition of E-Commerce as it exists today, with the various business models prevalent in the industry. I then analyze the differences between the current E-Commerce Market and what it hopes to look like tomorrow. The paper concentrates on describing that the inherent problems with the E-Commerce market today are the business models, and presents a vision of how I see the E-Commerce market in the coming decade.

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Introduction

It is not clear what constitutes E-Commerce and how companies can formulate Internet Strategies. Many surveys have been conducted that identify that most Managers think of E-Commerce as the buying and selling of products over the Internet. However, many researchers believe that this definition of E-Commerce is incomplete.

Retail Internet sales were predicted to be above the \$100 billion mark in 2000. Global E-Commerce Revenue is predicted to reach \$400 billion by 2002. IDC expects this number to rise to \$1 trillion by 2003 [4]. These figures make it clear that the present definition of E-Commerce is very limited. This definition needs to be expanded to include various pre and post sales activities. Applegate et al have described three classes of E-Commerce Applications as Customer-to-business, business-to-business and interorganizational [1]. They also view E-Commerce as the use of network communication as to conduct various value-addition activities both within and outside the organization.

Electronic Commerce is not limited to the trading of tangible goods. It is easily expanded to trading the intangibles such as legal advice, and information. The market supports the complete trading process, fulfillment and after-sales support. Finally it supports end-to-end supply chain for B2B collaboration.

In this paper, I shall try to describe each of these business models and see how management can use the emerging technologies to gain a competitive advantage. Few can argue that effective management strategies need to be adopted to capitalize on this lucrative market.

Business Models in today's E-Commerce Market

The literature on E-Commerce hardly ever is consistent on what is meant by a business model. Even less often is a solid definition provided. There is a lot of confusion between a business model and a marketing model. Timmers has provided a definition for these terms [13].

A business model is a framework for the products, services and information flows, along with a description of the various actors and the roles they play. It should also describe the potential benefits from the business actors and a description of the revenue and cost models. This is different from a Marketing Model. The business model, just describes the business mission, and not a path to success. The Marketing Model comprises of a Business Model and a strategy of the business actors to provide a positive revenue stream. There are many different categories of the different business models for business in the E-Commerce Marketplace.

One such category is the Product versus Services models. Fisher effectively shows the differences between the Product and Services space, by taking the examples of Inktomi Corporation and Akamai Technology [11]. Larry Ellison (CEO, Oracle) said, "We sell software in exchange for money". His statement is clearly in the support of the Products markets. It is interesting that the underlying business of Inktomi and Akamai is the same – to make web delivery faster and more reliable. However, they have approached this in a uniquely different way. The strengths and weaknesses of both models become evident. The main challenges in the product space are that it requires a field sales force that can significantly increase the cost of doing business. There is tremendous upfront investment required, but lower fixed costs and greater profit margins. Also the customer base can get limited if the product has a high dollar tag. The Services market is attractive due to lower up-front capital and a shorter deployment process.

Manufacturing and distributions costs are eliminated, allowing a recurring revenue stream. However, the fixed costs can mount up, due to the need to maintain the infrastructure for customers, and competition can lead to a price war. Many product makers increase their value proposition by including service offerings. The trend seen is that at times the service offerings out-sell or outlast the products.

One other distinction between business models is based on the markets that the businesses serve. The IBM description [16] of these models is represented in the figure below.

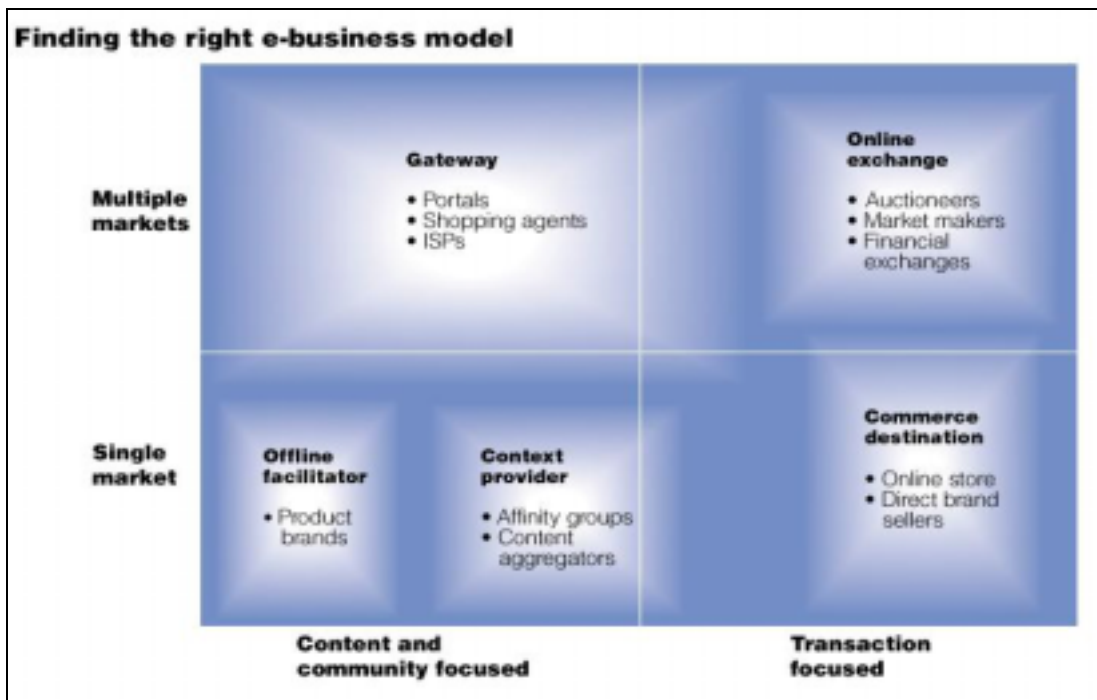


Figure i: e-Business Models - IBM [16]

This model describes the differences between the models based on the market focus as well as the focus of the business on being “Content and Community” or “Transaction” focused. This model described by IBM, can be abstracted to fit into the model described by Timmers [13] as shown below.

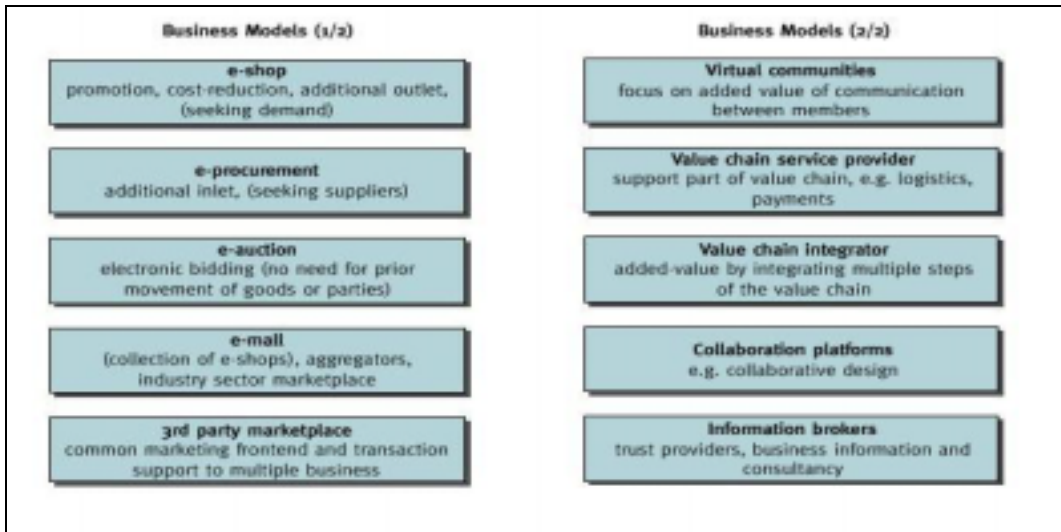


Figure ii: Timmers Description of Business Models [13]

Each of the 8 models described by Timmers can be fit into one or more of the 5 models or buckets described by IBM. This shows an overlap between the 2 schemas for describing business models. For example, the e-Shop and e-Auction ideas, fit into the multiple markets framework, however, the e-Shop is more on the Community and Content side, whereas the e-Auction falls into the Transaction focused business models. Trimmer goes on to further classify these business models as per the degree of innovation and the functional integration. The figure below shows his analysis of the different models and examples of some companies that lie within each one.

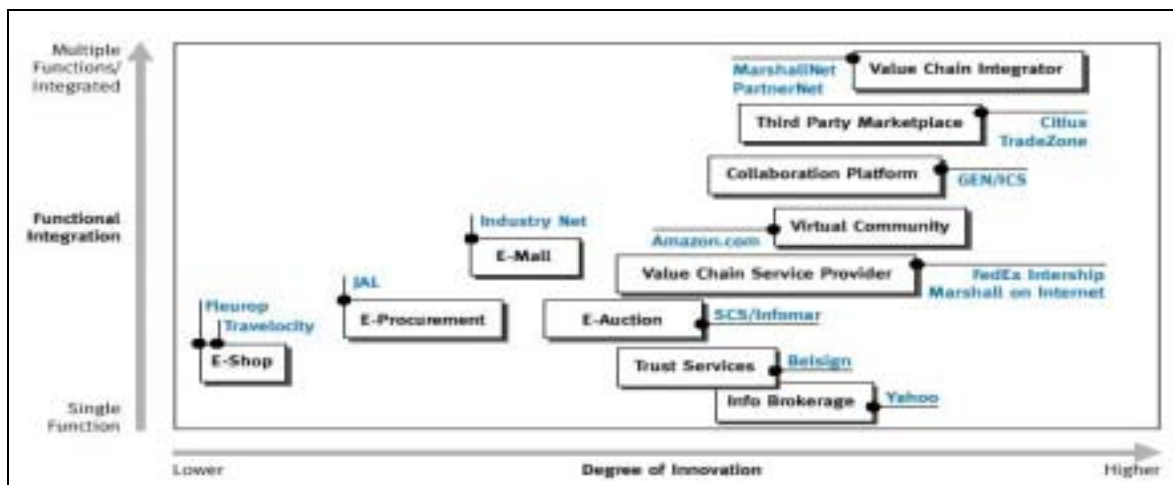


Figure iii: Classification of Business Models with Examples [13]

Many of these business models are essential for the e-versions of traditional models, such as e-auctions or e-shops. Some of the others such as information brokerage, and third party marketplaces, are more innovative and add value by providing distinctive features (products or services) to differentiate the implementers from traditional business forms. These become feasible due to the application of the Internet technologies.

Companies are now moving away from brand marketing for building emotional ties and winning customer loyalty. Businesses can gain customer loyalty by nurturing online communities and providing personalized offerings to their customers, to distinguish them from their competitors. For a manager in this industry, running a profitable e-business is a challenge. Just a viable business model is not sufficient. The e-business strategy for a company must include a fresh perspective on the core capabilities and value offerings of the company. The companies need to evaluate their product offerings, competitors and customers.

Where is E-Commerce Today?

Most managers do not fully consider the potential strategic advantages that the E-Commerce technologies can provide. This generally results in diversion of funds to other areas that are viewed to be of more value. We are now crossing the chasm from early adopters to mass-market use [3]. The E-Commerce market needs to have good content, provide convenience to the user and instill confidence that the user is not being misled. The 3 C's (content, convenience and confidence) are key to the success of any Internet Business. All three areas call for a collaborative framework in which to build a secure marketplace that is governed by a tight legal and regulatory framework.

Even 20 years ago, Electronic Commerce existed with the face of EDI, and CALS (Computer Assisted Lifecycle Support). Businesses today are fast realizing the needs to become e-savvy. The burst of the "dot.coms" in 1997-98 is proof of this. This has become possible with the technology and business innovations that drive this market. The advent of the WWW and the Internet have made modern day Electronic Commerce possible.

Most companies today are customer focused (such as Amazon.com, Ebay etc). The B2C Electronic Marketplace is becoming quite saturated. Companies such as Cisco and General Electrics have been among the pioneers to demonstrate the application of the Internet technologies in the B2B marketplace. According to the survey conducted by IBM, which consisted of over 700 companies, the distinction between their business models lies in their primary focus (content and community versus orders and transactions) and market scope (serving single or multiple markets) [16].

Today, B2B seems like the place to be. The introduction of B2B eHubs is becoming increasingly popular in the Venture Markets. Companies such as Ariba, Chemdex, CommerceOne, Freemarkets and SciQuest.com have initiated the Net Market Makers (<http://www.netmarketmakers.com>). eHubs are defined as “neutral Internet-based intermediaries that focus on specific industry verticals or specific business processes, host electronic marketplaces, and use various market-making mechanisms to mediate any-to-any transactions amongst businesses [14].

The most recent development in the eHubs space is clearly the E-Speak technologies (<http://e-speak.hp.com>) by Dr. Rajiv Gupta, at HP Labs, Cupertino. Dr. Gupta’s vision towards the next generation of the Internet provides a framework for dynamic discovery and intelligent interaction of businesses. Technologies such as these are clearly increasing the possibilities of the “Internet Working for you” concept that I think is the next step in the evolution of the WWW and the Internet.

The typical E-Commerce initiative goes through various stages, similar to a Software Development Life Cycle. Each stage has a project goal that has a set of deliverables and is quantifiable – example a business model or an e-Commerce Requirement Document [6]. Each of the stages can follow best practices and be abstracted to help other organizations. The stages include: understand, explore, generate, evaluate, develop and assess. We need to be careful that business requirements and the corresponding solutions can change with market conditions, customer demand and as managers develop new ways to add value.

Electronic Commerce today is concentrated mainly with the US and a few other developed countries. It is not straightforward for companies in the US to expand their offerings outside the country. This main reasons stem from infrastructure issues such as bandwidth and payment systems. Here again, managers are blaming the wrong reasons, and fail to understand that the main flaws lies in their business models and value propositions.

Current Trends in Global E-Commerce

Companies that are doing well in the US, or parts of the US, are trying to expand their businesses to the rest of the world. This global expansion is high risk, due to the inherent differences in the business models required by the different economies, government and society. This is true both for B2C and B2B markets. For example, even though Germany has the most advanced telecommunication services, it is considered a laggard in E-Commerce, because of the reluctance to use Electronic Payment systems.

However, this trend is changing rapidly. Europe is far more aggressive than the US in introducing legislation with respect to E-Commerce initiatives. The EU has pioneered the acceptance of electronic signatures methods as the source of truth. Computer and information infrastructure is growing rapidly in all countries, with the fastest growth being seen in Singapore, India and other Asian countries. With this rapid growth, it is only a matter of time, when the E-Commerce industry becomes truly global. We are already seeing a “dot.coms” burst in India and Singapore. India is graduating from being a body shop for cheap labor, to a country that is itself short of skilled professionals for the E-Commerce initiatives being launched locally.

Clearly, the lack of successful business models, culture, socio-economic issues, government, the lack of standards and the lack of executive awareness [17] are the main reasons for the failure of a Global E-Commerce platform. In December 1998, The University of Wisconsin – Madison, formed a consortium for global E-Commerce (<http://www.cgec.engr.wisc.edu>). This effort was to educate students to be able to contribute intellectual capital to support new business models, technology etc towards a truly global E-Commerce Market Place.

The next steps in E-Commerce

The next decade will bring rise to a truly global E-Commerce market. Managers will realize the potentials of various technologies and be able to adapt current business models for the new market. Businesses have the opportunity to add value on top of their traditional businesses by using the latest technological innovations. “By using various modes of *interaction*, firms compete over both *time* and *distance* in order to provide some *product* or service through a chain of *relationships* eventually ending with the end customer” [18]. These relationships will be formed more extensively and many times ad hoc and dynamically (using frameworks such as E-Speak, described earlier in this paper).

As the telecommunication and Internet infrastructure progresses, more emphasis will be placed on the legal issues that hamper the growth of E-Commerce today. Unified frameworks for customs and taxation will be developed and electronic payment systems will be adopted worldwide. The adoption of standards in which these systems can interact and be developed, will allow businesses to provide extremely personalized user experiences and the “Internet Working for you” concept will become a reality.

The Internet will evolve as an EcoSystem where buyers, sellers and intermediaries will form extended trading communities. “It’s a vision suited to the speed of the Information Age, promising rapid transformation – and threatening radical dislocation – of business and even society as we approach the next century” [3].

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