

# E-business: A Conceptual Framework For Competitive Advantage

Dr. S. Ravishankar<sup>1</sup>  
Dr. V. Raghuraman<sup>2</sup>

## ABSTRACT

*The e-business has become a dominant element in the business world, especially in the developed countries where sound infrastructural support is available. The term 'e-business', of course, has no single definition, meaning only commercial activity which is somehow linked to or supported by electronic communications. It maybe anything ranging from a simple advertisement in the World Wide Web, or an e-mail communication; all the way leading to an entire multi-billion dollar transactions initiated and promulgated in electronic form.*

*In the form of computer data processing and internet communication, the e-commerce business substitutes cash transaction; and raises the speed and efficiency of operations. Business transactions over computer networks avoid many of the associated costs of interpersonal economic exchange, costs of travel, processing paper documents and physical space for meetings. The first business to attract world-wide attention on the internet, for example, is the business-to-consumer (B2C) retail institutions, such as Amazon and CDNow, providing about \$16 billion of the \$3 trillion in U.S. retail sales in 1999. The focus of this paper is on the overall efficacy and benefits of e-business, which has attracted considerable interest in the modern day marketing methods. The main benefits of doing business through the electronic mode include convenience to shop 24 hrs. from any location without physical movement; and availing the facility of quick interaction with the seller's site to find information on products and services. The paper, conceptually, justifies the emergence, role efficacy and benefits of e-business in the context of rapidly changing marketing scenario.*

**Key words:** e-business, electronic commerce, customers, online selling,

operational efficiency, emerging issues, trust, common security, WTO

## INTRODUCTION

During the last two decades, all over the world doing business electronically has emerged as a sophisticated method. It began initially with the telephone, and then there was instant telephone-ordering of goods and services advertised on television, and then came into effect EFT/POS.

Of late, multiple forms of electronic business are arriving. For instance, Chip-based stored-value cards have already been successfully experimented in large parts of the world. While the Cable-TV isn't very popular, cable-based marketing, shopping and banking has a wide base in general population. And there is no doubt that the big mover is the electronic business on the Internet

In the evolution of business transactions, e-business (electronic business) is a modern method; and it replaces the swapping of money for goods or bartering (the swapping of goods for goods) with the extensive exchange

of information from one computer to another.

Electronic business, as the terminology itself broadly reflects, enables business organisations of various sizes and in varied market sectors to improve their performance parameters amidst stiff competition. Cutting across the geographical boundaries and time zones, e-business practices save time and costs and provides up new market opportunities; and also enables even the smallest of companies in trading to compete globally.

E-business includes many established processes covering bar code scanning and electronic data interchange (EDI), and also newer arrivals, electronic mail, the Internet, the World Wide Web and mobile electronic commerce.

## FLEXIBILITY IN USAGE

Operating the business through electronic mode is attractive and easy, since it ensures cost reduction in doing business. For instance; mailing a few bytes of data over a network is cheaper,

faster and convenient rather than sending a messenger or even making a phone call. E-business encompasses multiple forms of business activities or information exchange which are carried out by using any information and communications technology (ICT). The main activities may be: (1) business to business (b to b); (2) business to consumer (b to c); and (3) general online process.

In e-business, the internet today is extensively preferred as a choice for facilitating transactions all over the world; and it can be used for a variety of purposes including profile prospects, qualifying leads and to deliver proposals before a sales representative and a corporate prospect actually meet each other.

The efficiency of business-to-business sales process gets automated and can be considerably improved by using the internet; and thus, enabling the sales reps to focus their time and efforts on *personalised customer relationships*.

Customers, on the other hand, can "point & click" on the products they wish to purchase, fill out the customer information sheet, and the product will be dispatched by suitable transport and received quickly in a matter of few days. The administration department also need not have to get involved in unnecessary paperwork, since the customer had already done it. Thus, the overall efficacy is ensured. With an internet based trade solution, the business will be open 24 hours a day, 7 days a week. Customers from any part of the world with *an internet access* are enabled with the facility to visit the *website* at their convenient time; and not restricted to confine to the "normal" business operating hours.

In addition, feedback from web sites, on-line surveys and e-mail can be a useful source of leads and market information. A smaller company can use the internet as a business medium much to its advantage, to reach and serve business customers, nationally or internationally, without having to relocate or expand geographically. They can also use the internet to consolidate their ties with customers as well as business partners through the efficient and rapid interchange of mutually important business information. Savings from World Wide Web transactions are passed on to the company's customers, enabling the company to be more competitive in a *price and quality conscious buyers' market*.

## CHALLENGES AHEAD

The online selling through e-business has been very experimental to date, with inadequate amount of market information generated to provide definite direction and

results. However, important issues have emerged which vary according to the organization in question, the type of products it sells online, online selling patterns, online customer base, approach to online selling, and resource expansion etc.

*The pattern of sales is a core area which poses a challenge in e-business.* The level of total sales to date varies between the companies. The level of sales might be high one month and drop off to zero the next month. These erratic sales patterns may be attributed to two factors: First, for many e-business companies, the main goal of this activity is not generating revenue, but rather disseminating information on specific products. Producing and distributing products is a secondary activity that is done alongside larger projects for which they receive their funding. This is contrary to the many private-sector business organizations' *online selling process*, whose primary goal is to focus on *profit-making*. In view of this emphasis, private companies spend a lot on marketing their products in order to gain an extensive competitive edge in the marketplace. *As e-business is often viewed as a secondary activity for the development organizations, they may not be able to invest as much capital into marketing their products as the private companies do.* The fluctuating monthly rise and fall of sales figures can possibly be attributed to reasons like: (1) ad-hoc online purchasing patterns on the part of customers, when in one month more individuals may visit the website, compared with other months; or (2) the release of a new product with an advertisement detailing the online sales option, or an event where this service is announced.

A second factor may be the erratic sales patterns with regard to type of products offered by development-focused organizations. The types of products offered by these organizations are very product-quality specific,

focusing on particular development sectors like health, disaster relief, and agricultural sustainability, the environment, etc. The markets for such products although significant, can be small in size compared with mass-market products such as popular books or music cassettes. This, along with the fact that there is little or no marketing of the products, means that the level of sales will depend on the consumer/end-user first knowing that the product exists for sale online and second, being interested in buying the items.

*Other challenging issues relate to repeat customers for e-business products, or preference to purchase variety of products.* The following emerging issues need attention in e-business:



- a) Amount of capital invested in developing strategies for marketing of product;
- b) Types of products and brands being offered; and
- c) Change in consumer behaviour in online purchasing.

#### Security vs. Availability Issue

While it is preferable to offer both *security* and *availability* in one's e-business activities, there may be a tradeoff between the two requirements. If the focus is too extensive on the benefits of *security* for one's e-business environment, then, one might end up making it less *available*. At times, the server needs to be closed down for security updates, procedures and backups. During such periods, it may not be available for customers. If the focus is on being available 24/7, one may not like the idea of *downtime* to deal with security procedures. Hence, one has to take a decision as to what should be the priority for e-commerce business and set up the Website accordingly. All these above issues affect the sales volumes which act as an impediment in e-business.

#### Dealing with Common Security Threats to E-Business

Sometimes, it is quite possible that the e-business is affected by hacking, cracking, masquerading, Trojan horses, viruses, wiretaps, etc. or by unauthorized disclosures, unauthorized action, and data alteration. Denial of Service attacks also is a serious threat as it consists of malicious acts that prevent access to resources that would otherwise be available. Subsequently, the financial losses could be incurred although data may not be lost, and from not being able to supply a service to customers could be of much higher value. Therefore, in e-business, concerned organizations can initiate measures such as:

- a) Identifying or confirming the identity of the party with whom they are transacting.
- b) Ensuring that the activities being engaged in by an individual or machine is as per the level of authorization assigned.
- c) Protecting information from being altered either in storage or in transit and to ensure that only authorized entities have access to information.
- d) Enabling auditing process for verification of transactions.

To alleviate many of the information security issues, the objectives of confidentiality, integrity, auditing and non-repudiation need greater attention.

## INTRODUCING ACTIVITY BASED COSTING IN E-BUSINESS

The product cost can be derived by combining together direct costs and overhead costs and subsequently, it can be used to judge profitability, make well founded pricing decisions, identify opportunities for cost savings and to introduce a new product line or drop an existing one.

The following steps can be followed to facilitate activity based costing in e-business:

- 1) Overhead cost to be determined
- 2) Identification of main activities and determining the overhead cost of each activity
- 3) Choosing the cost drivers
- 4) Calculating the '*overhead cost*' of each cost object
- 5) Calculating the '*product cost*' of each cost object.

## IMPLICATIONS OF CONDUCTING BUSINESS ELECTRONICALLY

There are two important business phenomena to be taken into consideration: the sale of intangible goods (such as software) and intangible methods of transacting business, such as fax, EDI, the Internet, e-mail, telex, and online software agreements. These phenomena fall generally under the scope of electronic business.

New concept of online trading creates vast business improvements with opening up of new markets to a vast and wider variety of competitors. Transactions become cheaper, and communication costs are considerably reduced. At the same time, businesses find complex contracting challenges by entering jurisdictions in which they had no desire of conducting the business. Transacting parties have greater concerns with internet operations as opposed to traditional paper contracting, because the legal aspects stop at country borders, while the internet allows business to move freely across borders. However, computer-based contracts, especially those created through the internet, do not exist in a lawless cyberspace. Governments are making efforts to evolve appropriate legal measures to overcome the difficulties and to protect traditional contract law.

For instance, "an important measure towards creating a legal foundation for electronic business is to clear away the barriers in e-business".

## CONCLUSION

Thus, to sum up, to create an impact in today's dynamic digital marketplace, a strong sharper nail is preferred rather than a big hammer. In a rapidly growing globalized market, companies are increasingly compelled to use e-commerce business methods and also new tools ranging from web sites to wikis for product development, advertisement and better customer service. The e-business or online marketing which ensures 'visibility'(a pre-requisite) is at the core of all successful business activities. For the marketers, the benefits of e-business / online marketing include building customer relations, cost reduction, greater operational efficiency, and adjustments in online catalogue, tracking real-time results and enhanced accessibility to global markets.

## OPERATIONAL ADVANTAGES

The practice of internet-based business, as a solution to many business problems, has the potential to generate a brand new revenue stream, expand the market exposure, and reduce the *operation cost*. For example, the Fortune 500 companies, like Dell Computer Corp., have already adapted e-business methods in their trading operations and are believed to be currently *generating over 1 million dollars in revenues from their web-site*.

Many "*brick & mortar*" businesses too are in the process of establishing their *presence on the web*. For example, Barnes & Noble Booksellers in North American region has just launched their web-site recently, inspired by the success of Amazon.com. The top book & music seller – Amazon.com, on the web, has been referred to have one of the most efficient business operations at global level.

## ELEMENT OF 'TRUST' IN E-BUSINESS

Trust is an important component of e-business. Different ways are available to promote trust in e-business with adequate trust between 'buyer' and 'seller'.

One of the main ways for the buyer to build trust is to deal with the organizations in which there is substantial confidence. Continuously dealing with the same organization for a long period can lead to more confidence in one organization and also beginning relationship with few other low-risk purchases.

Effective consumer protection laws in place in respective regions in relation to conventional business will also help in influencing the trust factor. For example, goods are required to be of good quality, and debts resulting from card-based payment system cannot be enforced unless the trader can

either provide the payer's signature, or a proof showing that the person's PIN was keyed into an EFT/POS terminal. Few of the credit-card providers also offer consumer protection features.

Similarly, another way could be to have both the seller as well as the buyer deposit their consideration (i.e. the money on one side of the bargain, and the goods on the other side) with a third party; and the third party, usually a mediating agent, would undertake not to release the consideration to the other party, until both have been received and checked.

While the above mentioned approaches can often appear to be complex or impractical for the critics of e-business, businesses are searching for convenient ways of building trust into the purchasing process.

Trust can be built through '*eligibility authentication*' also which means while dealing with a person, checking whether he/she has actually the capability to they are claiming. For instance, does the person have a permit to sell the goods; whether they are a member of the relevant industry or professional association; do they have the company's authorization to sign a contract for a special price-list since they're tradesmen who buy at wholesale price or a discount.

E-business is considered potentially a great boon to consumers in general. The efforts to ensure that people have adequate trust in e-business can easily lead our emergent '*information society*' down a path towards the tightly controlled economy.

## IMPACT OF WTO ON E –BUSINESS

Towards the objective of making trade agreements clear, easy to understand and to promote trade in many countries, the WTO has been working continuously by reforming the old policies and introducing new challenging policies. The new polies focus on the business aims and trade promotions by supporting the evolution of electronic business and adoption of technology.

## REFERENCES

1. Afuah,A.,and C.I.,Tucci(2000). Internet Business Models and Strategies. New York: McGraw-Hill.
2. Business Software Alliance (2001). E-commerce and Developing Markets: Technology, Trade and Opportunity.
3. Coward, Chris(2000).Obstacles to Developing an Offshore IT-Enabled Services Industry in Asia: The View from the



- US. A report prepared for the Centre for Internet Studies, University of Washington.
4. Callon, J.D (1996). *Competitive Advantage through Information Technology*. New York: McGraw-Hill.
  5. E-commerce/Internet: B2B:2B or Not 2B? Version 1.1, Goldman Sachs Investment Research (November 1999 and September 14, 1999 issues).
  6. Korten, David C. (1990) as quoted in Smillie, Ian, "The Alms Bazaar." Ottawa: International Development Research Centre, 1995.
  7. Kalakota, R., and M. Robinson (2001). *E-Business 2.0*. Boston: Addison-Wesley.
  8. Lallana, Emmanuel, Rudy S. Quimbo and Zorayda Ruth B. Andam (2000). *E-Primer: An Introduction to E-commerce*. DAI-AGILE, a USAID-funded project.
  9. Mann, Catherine with Sue E. Eckert and Sarah Cleland Knight (2000). *Global Electronic Commerce: A Policy Primer*. Washington DC: Institute for International Economics.
  10. Proceedings vol.2 : Papers presented at PICMET '01, Portland, OR-USA, July 29-August 2, 2001
  11. Pine, J., II. (1999). *Mass Customization*. Boston: Harvard Business School Press.
  12. Porter, M.E. (March 2001) "Strategy and the Internet". *Harvard Business Review*.
  13. Philip Hackney, Comment (2001). *Is the United Nations Convention on the International Sale of Goods Achieving Uniformity?*, 61 La. L. Rev. 473, 474.
  14. Schmitz-Werke v. Rockland, 37 Fed. Appx. 687 (4th Cir. 2002), available at 2002 U.S. App. Lexis 12336 ("case law interpreting the CISG is rather sparse," citing *Claudia v. Olivieri Footwear Ltd.*, No. 96 Civ. 8052 (S.D.N.Y April 7, 1998), available at 1998 WL 164824).
  15. Smillie, Ian (1995). "The Alms Bazaar." Ottawa: International Development Research Centre.
  16. Strauss, J., and R. Frost (2001). *Internet Marketing*. 2<sup>nd</sup> ed. Upper Saddle River, N.J: Prentice Hall.
  17. Sara, E. (2000). *E-Marketplace: Opportunity or Threat?* E-Business Advisor. (7) S18-S21.
  18. Timmers, P. (1999). *Electronic Commerce: Strategies and Models for B2B Trading*. Chichester, U.K.: John Wiley & Sons Ltd.