

# Impact of E-commerce on Cost and Productivity

**Ms. Bhupinder Kaur**

**Assistant Professor S.D College Ambala Cantt**

*Email id: bhupinderkaur750@gmail.com*

## ABSTRACT

*The changing scenario of marketing environment, from the traditional ways of buying and selling to the modern ways. Due to the technological developments it changes the way the firm operates. And people also move from the physical stores to electronic stores. And due to advancements in the field of commerce, it totally changes the picture of business. Thus, E-commerce has a significant impact on business costs and productivity. E-Commerce has a chance to be widely adopted due to its simple applications. Thus it has a large economic impact. It gives the opportunity for boundary crossings as new entrants, business models, and changes in technology erode the barriers that used to separate one industry from another. This increases competition and innovation, which are likely to boost overall economic efficiency.*

**Key words:** *E-Commerce; Bangladesh; B2B, B2C; Logistics*

## INTRODUCTION

E-commerce has allowed firms to establish a market presence, or to enhance an existing market position, by providing a cheaper and more efficient distribution chain for their products or services. E-commerce is a way of conducting business over the Internet. Though it is a relatively new concept, it has the potential to alter the

traditional form of economic activities. Already it affects such large sectors as communications, finance and retail trade and holds promises in areas such as education, health and government. The largest effects maybe associated

not with many of the impacts that command the most attention (i.e. customized product, elimination of middlemen) but with less visible, but potentially more pervasive, effects on routine business activities (i.e. ordering office supplies, paying bills, estimating demand). The buying and selling of products and services by businesses and consumers through an electronic medium, without using any paper documents. E-commerce is widely considered the buying and selling of products over the internet, but any transaction that is completed solely through electronic measures can be considered e-commerce. Other than buying and selling many people use Internet as a source of information to compare prices or features of the latest. E- Business is sometimes used as another term for the same process. More often, though, it is used to define a broader process of how the Internet is changing the way companies do business, of the way they relate to their customers and suppliers, and of the way they think about

such functions as marketing and logistics. For the purpose of this study e-commerce is taken to mean doing business electronically. (Lindsay P., 2002) Other terms that are often used when talking about e-commerce are B2B and B2C, shorthand for business-to-business, where companies do business with each other, and business-to-consumer, where companies do business with consumers using the Internet. These are considered to be main forms of e-commerce.

### OBJECTIVE OF THE STUDY

- To examine impact of e-commerce on business cost and productivity.
- To evaluate present status of e-commerce.
- To identify how e-commerce reduces cost of customer services and after sales services.
- To identify key success factors of e-commerce.
- To provide insights for policy formulation in the area of e-commerce.

### METHODOLOGY

This research paper has been written on the basis of secondary information. The secondary information and data were collected from published books, journals, research papers, and official statistical documents. Reports published on e-commerce by Organization of Economic Cooperation and Development (OECD) provides important ideas regarding the topic.

### THE ECONOMICS OF NETWORKS

The Internet is a global network. Use of the Internet for commercial purposes, as in e-commerce, is therefore subject to significant network effects or demand side scale economies. Network effects are economies of scale; the new information economy is driven by describes the network economy as follows: The essence of the network economy is that consumer's place greater value on large networks than on smaller ones. Armstrong, A., & Hagel, J. (2000). The real value of online communities.

Such as network effects clearly apply to real networks, such as networks of telephone user, compatible fax machines, or compatible modems. Perhaps less obviously, they also apply to virtual networks, such as the network of Apple Macintosh users, the network of users of Microsoft excel, or the network of users of DVD machines. Industries ranging from computers software and hardware, to credit cards, ATM cards and smart cards to telecommunications networks and the Internet itself, network effects are a critical part of the competitive landscape. For information-intensive industries, the global scale of the Internet releases both demand-side and supply side scale economies, producing what Shapiro and Varian (1999, p. 182) describe as: A double whammy in which growth on the demand side both reduces cost on the supply side and makes the product more attractive to other users- accelerating the growth in demand even more. The result is especially strong feedback, causing entire industries to be created or destroyed far more rapidly than during the industrial age.

### E-COMMERCE IN USA AND EUROPE

At present, United States of America is typically credited with about four-fifths of worldwide e-commerce activity. The figures

roughly suggest that Eastern Europe presents about 10% and Asia about 5% of the world total. In Europe, United Kingdom and the Nordic countries are the current leaders, although some estimates attribute significant activity to Germany. For each of the major categories e-commerce activities live audio, shopping, finance, and content (sports, adult) USA typically has 67 to 85 of the top 100 sites. Canada comes in second for five out of the six categories. Over the near term, the US lead is expected to decline to about two-third of world's total e-commerce activity, particularly because France, Germany's T-online services have accustomed their citizens to online buying; as these services migrate the Internet, e-commerce should expand. Also, Europe may see a user led demand pull, in contrast to the technology push thought to characterize the US situation (Hawkins, 1998). Selective individual firms e-commerce revenues by activity E-commerce (B2B) CSX GE NEC Cisco Dell Computer E-commerce (B2C) Autos: Auto by tel. Books: Amazon Groceries (peapod) Toys (e toys) Music (N2K).

## E-COMMERCE IN BANGLADESH

Despite being an under developed country, selected segments of the Bangladeshi business community has embraced technology with reasonable success. The Facsimile in the 1980s and mobile telephones in the 1990s popularized technology in the mass market. Personal computers and the Internet are also emerging as day-to-day business tools. These positive indicators are favouring the prospects of e-commerce in Bangladesh. B2C e-commerce is unlikely to be of much use in the near future in Bangladesh because of low per capita income, a weak infrastructure,

lack of a proper legal environment and lack of trust between business and consumers. B2C for cross border trade is also limited by the factors suggested for the domestic front. In addition, difficulties in accessing international credit cards, foreign currency remittance restrictions, delays and informal payment at customs clearance even for small value and quantity items will discourage B2C. The B2B application already exists in the export sector of Bangladesh, especially in the Ready Made Garments (RMG) industry. RMG has the lion's share of the export earnings in Bangladesh. The RMG sector has begun to use the Internet, and its dependence on e-commerce is likely to grow in the coming years. The Internet would enable them to seek information about potential buyers as well as raw material suppliers.

Similarly the practice of posting a website by individual producers has begun. However, if Bangladeshi producers are unable to accommodate electronic transfer of payment and other facets of e-commerce, the Zeal How et al business opportunity will move on to countries that have developed such systems. B2G e-commerce is possible in Bangladesh, but on a limited scale at this stage. The government is a major buyer of goods and services from the private sector. Typically, the government procures goods and services by inviting tenders. The availability of the Request For Proposal (RFP) and other relevant documents on-line provides an alternative choice. Transactions involving information collection, obtaining various governmental forms, registering activities can also be conducted on-line. This will reduce time costs, corruption and the necessity of going through lengthy bureaucratic procedures as well as increasing transparency.

## A FRICTION FREE SOCIETY

Rapid technological development, progress in information and communication technologies along with their wide spread diffusion led to speculation about frictionless economies in which transaction costs are nearly zero and barriers to entry and contestability are non-existent. Somethink that Internet will eliminate existing intermediariessand drastically reduce transaction costs.

These lower production costs will encourage the entry of new business and thus increase competition and pressure to pass lower costs on to consumers as lower prices. In addition, consumers will be able to search among thousands of merchants for the lower prices, thereby increasing the downward pressure on prices and leading to a shift in market power from producer to consumer. In general, it is thought that electronic commerce can significantly improve the efficiency of economies enhance their competitiveness improve the allocation of resources, and increase long-term growth.

## IMPACT OF E-COMMERCE

“E-commerce is increasingly emerging as the fundamental sales channel for growing numbers of businesses. The internet user base is expanding fast and e-commerce has opened up a big window of opportunity for businesses to expand to new markets with ease and at low cost.”Because electronic commerce is still at a very early stage in its development, much of this thinking is based on speculation on sketchy evidence. These claims can be analysed by looking first at price declines in key technologies, which enables electronic commerce. The price

declines in these supporting technologies allow firms to reduce its production costs. However, given the intangible nature of e-commerce, new transaction costs are generated, many of which are associated with creating trust and managing some of the risks.

The Falling Cost of Information and Communication Technologies As electronic commerce is on, it runs on an an internet application is an Internet application on an infrastructure composed of computers, software and communication systems and uses the Internet’s.Key infrastructure applications (e.g. e-mail, world wide web, browser). This group of technologies has supported the development of electronic commerce and in turn is the source of much of electronic commerce’s value. Advances in microelectronics have caused the price of memory chips and semiconductors to decline steadily. While these price declines are among the most spectacular, many other elements of computing disk drives for data storage, printers and other peripherals have also seen significant price declines.

These falling prices allow firms to engage in e-commerce. In fact, the cost of processing, analysing, storing, and presenting data has fallen to such an extent that computing power is now widely diffused in applications like skins, greeting cards etc. Fibre optics technology, radio and satellite transmission have also fuelled large price decline in communications costs. However, because of network nature of the communication sector and its regulatory environment, the overall drop in phone call prices has been more modest. Segments that are exposed to competition, such as the tariff basket for business

communication charges in competitive markets and the price of leased lines have declined. New technologies such as digital subscriber lines (DSL), continued liberalization of regulations, the arrival of new entrants, and addition of significant new capacity have leadsome to suggest that communication prices may begin to follow a similar performance to price path as information technologies (Gilder, 1994). Assessing the collective impact of these technological developments and their associated price declines on production costs, productivity, and prices is very difficult to ascertain and has ledThe Economic Impact of E-Commerce to a sub-fieldof economics that tries to explain the productivity paradox. Paradox is unlikely to have a single solution, andthe issue of whether or not computers significantly increase productivity has not been resolved. This is not surprising, since the broad impact of the telephone, which has been widely diffused for generations, on social interaction, location decisions, and business structure is still not well understood e-commerce.Dell computers for example, have extended the supply of customized products back into its manufacturingprocesses, facilitating &mass customization of its desktopcomputers .on the other hand it recognizes, there are impediments to capturing the cost savings of e-commerce and the Internet, including &inertial forces that relate more to organizational issues, the importance of compatibility with legacy systems and non-technological transactions costs.

### **CHANGING FIRMS COST STRUCTURE**

The impact of e-commerce on firms, internal production and transaction costs

falls into three broad categories: I) The cost of executing the sale, E-commerce is very effective at reducing the costs of attracting new customers. While far from friction free, advertising is typically cheaper than other media and more targeted. For example while CarPoint (an e-commerce auto referral site) typically charges dealers about \$200 in advertising and fees per car sold, car dealers typically spend \$450per car sold through traditional media (Kehoe, 1998). Knowledge-based economies are dominated by sophisticated products, customer services and after sales services. These are major costs for many firms. Traditionally, this meant placing service personnel in the fieldto visit clients, staffing callcentres, and publishing extensive documentations of issuing software. For many firms these costs are substantial. With the help of e-commerce, firms are able to move much of this support on line so that customers can access database. This significantly cuts costs while generally improving quality of services. E-commerce has allowed companies to significantly decrease the number of employees they require to operate certain kinds of businesses impact on the number and nature of staff hired. By and large, e-commerce shops require far fewer, but highly skilled employees. Amazon.com, thee-commerce books merchant, has only 614 employees (for sale of \$418million) while Barnes & Noble; the largest physical US bookstore has27,200 (for sale of \$2.8 billion). Although these numbers are not strictly comparable, they give a roughsense of the differences in employment levels and sales per employee. Federal Express reports that their online customer services system has represented a saving of 20,000 new hires

(about 14% of their total labour force). Cisco reports that thanks to its e-commerce website, they did not have to hire 1000 new staff for their sales/support group. Just as electronic commerce can significantly reduce selling costs, it can also lower the costs associated with buying. While the actual transaction takes place outside the firm, the costs associated with procurement constitute significant internal costs. Even for low value requisition for office supplies or travels, the typical purchase II) Costs associated with the procurement of production inputs, and III) Costs associated with making and delivering the product. This probably represents only a subset of the cost impacts associated with e-commerce as firms implement the technology. Similarly, beyond mere substitution; it is likely that e-commerce techniques may foster completely new ways of conducting businesses. By placing the necessary information on line in an accessible format, electronic commerce merchants generally transfer transaction costs to the customer. As a result, even when customers execute the transaction in a traditional way (offline) for example by buying a pc over the phone or coming to an auto dealers showroom to test drive a car, they come pre-qualified. They know more precisely what they do and do not want and are more likely to buy. This greatly increases the efficiency of the sales process. (Kehoe 1998) 53 Ziaul How et al order costs between \$80 and \$125 to process, a sum that in many cases exceeds the value of the material being bought, owing to the error prone and time consuming process generally required to control purchasing costs. Internet based e-commerce procedures now make

it possible to apply EDI-type systems to relatively small purchases, thereby drastically reducing errors, ensuring compliance with organizational norms, and speeding the process. Estimates of the savings gained range from 10 to 50 per cent. Directly related to savings in time associated with procurement are savings in inventory costs - the faster an input can be ordered and delivered, the less the need for a large inventory. In the sales of all motor vehicle equipment in the United States of America, approximately, 37% of all inventories are carried by manufacturers, while 25 and 27 per cent of total non-farm wholesaler and retail trade hold inventories, respectively. Each stage of the value added chain therefore holds considerable inventories. It is estimated that for retailers, the cost of carrying an inventory for a year is equivalent to at least 25% of what they receive in payments for the product. A key factor in reducing the costs of inventories is improving the ability to forecast demand more accurately. E-commerce merchants who allow consumers to customize their order or select from a wide variety of choices obtain valuable information on consumer preferences. This helps them improve their ability to forecast demand. In a traditional store, a consumer might buy a computer with unwanted features or lacking certain features because that model was available. In such a situation, the merchant is ignorant of the consumer's true preferences. The e-commerce merchant who offers a built to order computer, instead knows exactly what consumers prefer and can adjust the product line accordingly. Although shipping costs can increase the cost of many products purchased via e-

commerce and add substantiality to final price, distribution costs are significantly reduced (by 50 to 90 per cent) for digital products such as financial services, software, and travel, which are important e-commerce segments. For these products, the cost reduction associated with e-commerce could have large economic impacts and further fuel the migration of these sectors to e-commerce. In the case of airlines, electronic tickets now account for about half of all tickets for some major carriers; this has resulted in substantial savings and is forcing competitors to follow suit. For sectors such as music, where songs can be downloaded directly from the producer, or news, where the journalists e-mail the reader directly, huge savings are reaped over traditional forms of distribution. This reduction in distribution costs is especially important for international trade. Even for tangible goods-commerce methods can reduce the administrative costs associated with trade and customs clearance by over 25%.

## CONCLUSION

Undoubtedly, it's an expansion time for E-Commerce Industry. E-Commerce players are banking on the Indian internet growth story. The fact that an average online user is spending more time online gives these players the opportunity to draw more users to their websites through innovative marketing strategies such as those revolving around social media. Furthermore, to fully utilize the opportunity, players need to leverage the growing number of mobile devices in the country. They should focus on developing mobile-compatible websites and applications. This would allow customers to log on to easy-to-access platforms and browse e-Commerce websites on their

mobile devices. They also need to focus on innovation to tackle challenges arising from low credit and debit card penetration. They could consider working with financial intermediaries to develop payment systems, such as escrow services, for resolving issues around security and product delivery. The RBI could step in and reduce the number of online transaction failures by defining service metric quality and monitoring it at regular intervals. This would enable it keep a close eye on the performance of financial intermediaries and plug gaps as soon as they occur.

## REFERENCES:

- [1]. Archer, N., & Gebauer, J. (2002). B2B applications to support business transactions: overview and management considerations. *TEAM*, 22.
- [2]. Bowman-Amuah, M. K. (2004). *U.S. Patent No. 6,697,824*. Washington, DC: U.S. Patent and Trademark Office.
- [3]. Damanpour, F., & Damanpour, J. A. (2001). E-business e-commerce evolution: perspective and strategy. *Managerial finance*, 27(7), 16-33.
- [4]. Armstrong, A., & Hagel, J. (2000). The real value of online communities. *Knowledge and communities*, 85-95.
- [5]. Parra-López, E., Bulchand-Gidumal, J., Gutiérrez-Taño, D., & Díaz-Armas, R. (2011). Intentions to use social media in organizing and taking vacation trips. *Computers in Human Behavior*, 27(2), 640-654.
- [6]. Tham, A., Croy, G., & Mair, J. (2013). Social media in destination choice: Distinctive electronic word-of-mouth dimensions. *Journal of*



*Travel & Tourism Marketing*, 30(1-2), 144-155.

- [7]. Chopra, S., & Van Mieghem, J. A. (2000). Which e-business is right for your supply chain?. *Supply Chain Management Review*, 4(3), 32-40.
- [8]. Hoq, Z., Kamal, M. S., & Chowdhury, A. H. M. (2005). The economic impact of E-commerce.
- [9]. Barroso, A., & Giarratana, M. S. (2013). Product proliferation

strategies and firm performance: The moderating role of product space complexity. *Strategic Management Journal*, 34(12), 1435-1452. Eng, O. For Official Use DSTI/IND (2000) 7.

- [10]. Kuwayama, M. (2002). United Nations Economic Commission for Europe (UNECE).