

## “Impact of E-Commerce”

**Dinkar D. Pujari**

Department of Commerce and Management Studies, Sangameshwar College Solapur,  
Maharashtra, India

---

### Abstract

Electronic commerce may have large economic effects in the future. Internet commerce will change the face of business forever. Moreover, e-commerce will change banking in 21st century. The e-commerce has affected the global economy in many different ways. First of all, it has affected the information technology, and all the economic sectors, all and above e-commerce has enhanced the productivity growth worldwide and here I am going to discuss this impact, they are able to identify the number of qualified people needed to advance their country's information economy or to calculate the amount of investments needed to provide business with access to the internet. Some countries are already benefiting from the results, they are now in opposition to benchmark their economies with competitors internationally and there are many ways to accelerate the growth of productivity but the reason for this is rather controversial. Banks and financial services companies in the developing countries will need to adopt online payment system, to obtain e-trade finance and equity investment, tourism and its internet incarnation is regularly cited as one of the fastest growing ecommerce sectors. The impact of e-commerce on developing countries could be even stronger than that on developed countries because the scope for reducing inefficiencies and increasing productivity is much larger in the developing countries.

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 crossing” 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.

**KEYWORDS:** (e-commerce, impact of e-commerce, advantages, limitations.)

---

### 1.1 INTRODUCTION:

Internet is one component which has recently become the key ingredient of quick and rapid lifestyle. Be it for communication or explorations, connecting with people or for official purposes, ‘internet’ has become the central-hub for all. Resultantly, Internet growth has led to a host of new developments, such as decreased margins for companies as consumers turn more and more to the internet to buy goods and demand the best prices, as observed by C.K Prahalad , Professor, Business School, University of Michigan. The internet means that traditional businesses will change because “incumbents (in markets) and large firms do not have the advantage “ just by virtue of being there first or by being of big, he said. The implication of perfectly competitive market as the world will observe is those markets will produce an efficient allocation of resources. Internet has truly been an effective agent in changing the fundamental ways of doing business.

In any market with no entry barriers – the Net is biggest of them, the continuous influx of competition will, automatically, drive down the prices. In such a case, in long term all firms could only earn normal profits. Electronic commerce (or e-commerce) encompasses all business conducted by means of computer networks. Advances in telecommunications and computer technologies in recent years have made computer networks an integral part of the economic infrastructure. More and more companies are facilitating transactions over web. There has been tremendous competition to target each and every computer owner who is connected to the Web although business-to-business transactions play an important part in e-commerce market; a share of e-commerce revenues in developed countries is generated from business to consumer transactions. E-commerce provides multiple benefits to the consumers in form of availability of goods at lower cost, wider choice and saves time. People can buy goods with a click of mouse button without moving out of their house or office. Similarly online services such as banking, ticketing (including airlines, bus, railways), bill payments, hotel booking etc. have been of tremendous benefit for the customers. Most experts believe that overall e-commerce will increase exponentially in coming years. Business to business transactions will represent the largest revenue but online retailing will also enjoy a drastic growth. Online businesses like financial services, travel, entertainment, and groceries are all likely to grow.

Developing countries, such as India, also need to prepare themselves for the future multilateral trade agenda, in particular the so-called new issues on which the Second Ministerial Conference of the World Trade Organization (WTO) in May 1998 asked the WTO General Council to formulate recommendations. One such issue is e-commerce which is presently under study in the WTO. E-commerce is not only a new technology and a new frontier for global business and trade, it is also still evolving. Developing countries, therefore, need to understand, and assess carefully from their perspective, the pros and cons of the different proposals and issues in this connection that have emerged at the WTO. They need to comprehend the possible impact of this new phenomenon on their economies and work out appropriate strategies and responses to it. However, unlike most other trade-related agenda items before the WTO, this is an area that is not just new but also one where many of the implications are as yet unclear.

### **1.2 DEFINATION OF E- COMMERCE:**

Some of the definitions of e-commerce often heard and found in publications and the media are:

1. Electronic Commerce (EC) is where business transactions take place via telecommunications networks, especially the Internet.<sup>1</sup>
2. Electronic commerce describes the buying and selling of products, services, and information via computer networks including the Internet.<sup>2</sup>
3. Electronic commerce is about doing business electronically.<sup>3</sup>
4. E-commerce, or electronic commerce is defined as the conducting of a business communication and transactions over networks and through computers.<sup>4</sup>

### **1.3 THE KEY DRIVERS OF E-COMMERCE:**

These key drivers can be measured by a number of criteria that can highlight the stages of advancement of e-commerce in each of the respective countries. The criteria that can determine the level of advancement of e-commerce are as:

**1. Technological factors:** The degree of advancement of the telecommunications infrastructure which provides access to the new technology for business and consumers.

**2. Political factors:** Including the role of government in creating government legislation, initiatives and funding to support the use and development of e-commerce and information technology.

**3. Social factors:** incorporating the level and advancement in IT education and training which will enable both potential buyers and the workforce to understand and use the new technology.

**4. Economic factors:** Including the general wealth and commercial health of the nation and the elements that contribute to it.

### **2.1 OBJECTIVES:**

1. To identify the impact of e-commerce.
2. To recognize the advantages and limitations of e-commerce.
3. To identify the key drivers of e-commerce.
4. To understand the market models of e-commerce.

### **2.2 METHODOLOGY:**

This 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.

### **3.1 IMPACT OF E-COMMERCE:**

E-commerce and e-business are not solely the Internet, websites or dot com companies. It is about a new business concept that incorporates all previous business management and economic concepts. As such, e-business and e-commerce impact on many areas of business and disciplines of business management studies. For example:

**1. Marketing:** issues of on-line advertising, marketing strategies and consumer behavior and cultures. One of the areas in which it impacts particularly is direct marketing. In the past this was mainly door-to-door, home parties (like the Tupperware parties) and mail order using catalogues or leaflets. This moved to telemarketing and TV selling with the advances in telephone and television technology and finally developed into e-marketing spawning 'eCRM' (customer relationship management) data mining and the like by creating new channels for direct sales and promotion.

**2. Computer sciences:** development of different network and computing technologies and languages to support e-commerce and e-business, for example linking front and back office legacy systems with the 'web based' technology.

**3. Finance and accounting:** on-line banking; issues of transaction costs; accounting and auditing implications where 'intangible' assets and human capital must be tangibly valued in an increasingly knowledge based economy.

**4. Economics:** the impact of e-commerce on local and global economies; understanding the concepts of a digital and knowledge-based economy and how this fits into economic theory.

**5. Production and operations management:** the impact of on-line processing has led to reduced cycle times. It takes seconds to deliver digitized products and services electronically; similarly the time for processing orders can be reduced by more than 90 per cent from days to minutes. Production systems are integrated with finance marketing and other functional systems as well as with business partners and customers. (mini case) Intel launched their on-line business in summer 1998 when their sales shot from zero to \$1 billion per month in the first month of operation. The reason for this is that they totally re-engineered their processes to include small and medium-sized businesses. Previously only Intel's larger customers were connected to them by expensive EDI networks, leaving the small and medium-sized companies sending faxes or phoning in orders or requirements. Intel concentrated on procurement and customer support for a range of their products (including computer chips and microprocessors), developing an extranet (which is the linking of a number of intranets using Internet technology with added security creating virtually private networks). By using the extranet, authorized small and medium-sized business partners could place orders, track the orders and look at product documentation on the site. The savings for Intel and their customers were large – they eliminated 45,000 faxes in a quarter to Taiwan alone – saving on time, telephone charges and fax paper. Eleven of the larger Intel companies were connected to another system which let Intel link to customer plants across the Internet to track part consumption.<sup>5</sup>

**6. Management information systems:** analysis, design and implementation of e-business systems within an organization; issues of integration of front-end and back-end systems.

**7. Human resource management:** issues of on-line recruiting, home working and 'entrepreneurs' working on a project by project basis replacing permanent employees.

**8. Business law and ethics:** the different legal and ethical issues that have arisen as a result of a global 'virtual' market. Issues such as copyright laws, privacy of customer information, legality of electronic contracts, etc.

### **3.2 CLASSIFICATION OF E-COMMERCE BY TRANSACTION PARTNERS /MARKET MODELS:**

Method for classifying e-commerce is by identifying the partners directly involved in the transaction. An informal version of this framework is being loosely applied in the use of the terms business-to-business (B-to-B), business-to-consumer (B-to-C) and consumer-to-consumer (C-to-C). But what exactly does this mean? A range of relationships based on the party that initiates the transaction and the party that accepts the transaction. The

party originating the e-commerce transaction also includes the facilities for initiating and fulfilling it. For example in the case of B-to-C, a business sets up a website that invites and enables consumers to buy their products and then fulfils the purchase. But the consumer actually initiates the transaction by requesting and then accepting the purchase. So there are a number of exchanges that take place between the parties before the transaction is completed and fulfilled. Each of the categories described as:

### **1. Business to Business (B2B)**

Business to Business or B2B refers to e-commerce activities between businesses. These transactions are usually carried out through Electronic Data Interchange or EDI. This allows more transparency among business involved; therefore business can run more efficiently.

### **2. Business to Customer (B2C)**

The exchange of products, information or services between business and consumers in a retailing relationship. Some of the first examples of B-to-C e-commerce were amazon.com and dell.com in the USA and lastminute.com in the UK. In this case, the 'c' represents either consumer or customer.

### **3. Customer to Business (C2B)**

Customer to Business or C2B refers to e-commerce activities, which uses reverse pricing models where the customer determines the prices of the product or services. There is increased emphasis on customer empowerment.

### **4. Customer to Customer (C2C)**

Customer to Customer or C2C refers to e-commerce activities, which uses an auction style model. This model consists of person-to-person a transaction that completely excludes businesses from the equation.

#### **4.1 ADVANTAGES OF E-COMMERCE:**

The advantages of e-commerce can be explained to affect three major stakeholders: organizations, consumers and society.

##### **1. Advantages of e-commerce to organizations-**

**a. International marketplace-** What used to be a single physical marketplace located in a geographical area has now become a borderless marketplace including national and international markets. By becoming e-commerce enabled, businesses now have access to people all around the world. In effect all e-commerce businesses have become virtual multinational corporations.

**b. Operational cost savings-** The cost of creating, processing, distributing, storing and retrieving paper-based information has decreased.

**c. Mass customization-** E-commerce has revolutionized the way consumers buy goods and services. The pull-type processing allows for products and services to be customized to the customer's requirements. In the past when Ford first started making motor cars, customers could have any colour so long as it was black. Now customers can configure a

car according to their specifications within minutes on-line via the [www.ford.com](http://www.ford.com) website.

**d. Lower telecommunications cost-**The Internet is much cheaper than value added networks (VANs) which were based on leasing telephone lines for the sole use of the organization and its authorized partners. It is also cheaper to send a fax or e-mail via the Internet than direct dialing.

**e. Digitization of products and processes-** Particularly in the case of software and music/video products, which can be downloaded or e-mailed directly to customers via the Internet in digital or electronic format.

**f. No more 24-hour-time constraints-** Businesses can be contacted by or contact customers or suppliers at any time.

## **2. Advantages of e-commerce to consumers-**

**a. 24/7 access-** Enables customers to shop or conduct other transactions 24 hours a day, all year round from almost any location. For example, checking balances, making payments, obtaining travel and other information. In one case a pop star set up web cameras in every room in his house, so that he could check the status of his home by logging onto the Internet when he was away from home on tour.

**b. More choices-** Customers not only have a whole range of products that they can choose from and customize, but also an international selection of suppliers.

**c. Price comparisons-** Customers can 'shop' around the world and conduct comparisons either directly by visiting different sites, or by visiting a single site where prices are aggregated from a number of providers and compared.

**d. Improved delivery processes-** This can range from the immediate delivery of digitized or electronic goods such as software or audio-visual files by downloading via the Internet, to the on-line tracking of the progress of packages being delivered by mail or courier.

**e. An environment of competition-** where substantial discounts can be found or value added, as different retailers vie for customers. It also allows many individual customers to aggregate their orders together into a single order presented to wholesalers or manufacturers and obtain a more competitive price (aggregate buying), for example [www.letsbuyit.com](http://www.letsbuyit.com).

## **3. Advantages of e-commerce to society:**

**a. Enables more flexible working practices:** which enhances the quality of life for a whole host of people in society, enabling them to work from home. Not only is this more convenient and provides happier and less stressful working environments, it also potentially reduces environmental pollution as fewer people have to travel to work regularly.

**b. Connects people:** Enables people in developing countries and rural areas to enjoy and access products, services, information and other people which otherwise would not be so easily available to them.

**c. Facilitates delivery of public services:** For example, health services available over the Internet (on-line consultation with doctors or nurses), and filing taxes over the Internet through the Inland Revenue website.

#### **4.2 LIMITATIONS OF E-COMMERCE:**

Isaac Newton's 3rd Law of Motion, 'For every action there is an equal and opposite reaction' suggests that for all the benefits there are limitations to e-commerce. These again will be dealt with according to the three major stakeholders – organizations, consumers and society.

##### **1.Limitations of e-commerce to organizations-**

**i. Lack of sufficient system security, reliability, standards and communication protocols:** There are numerous reports of websites and databases being hacked into, and security holes in software. For example, Microsoft has over the years issued many security notices and 'patches' for their software. Several banking and other business websites, in security where 'a technical oversight' or 'a fault in its systems' led to confidential client information becoming available to all.

**ii. Rapidly evolving and changing technology:** so there is always a feeling of trying to 'catch up' and not be left behind. Under pressure to innovate and develop business models to exploit the new opportunities which sometimes leads to strategies detrimental to the organization. The ease with which business models can be copied and emulated over the Internet increase that pressure and curtail longer-term competitive advantage.

**iii. Facing increased competition:** from both national and international competitors often leads to price wars and subsequent unsustainable losses for the organization.

**iv. Problems with compatibility of older and 'new' technology:** There are problems where older business systems cannot communicate with web based and Internet infrastructures, leading to some organizations running almost two independent systems where data cannot be shared. This often leads to having to invest in new systems or an infrastructure, which bridges the different systems. In both cases this is both financially costly as well as disruptive to the efficient running of organizations.

##### **2.Limitations of e-commerce to consumers-**

**i. A basic technical knowledge** is required of both computing equipment and navigation of the Internet and the World Wide Web.

**ii. Cost of access to the Internet,** whether dial-up or broadband tariffs.

iii. **Cost of computing equipment:** Not just the initial cost of buying equipment but making sure that the technology is updated regularly to be compatible with the changing requirement of the Internet, websites and applications.

iv. **Lack of security and privacy of personal data:** There is no real control of data that is collected over the Web or Internet. Data protection laws are not universal and so websites hosted in different countries may or may not have laws which protect privacy of personal data.

v. **Physical contact and relationships are replaced by electronic processes:** Customers are unable to touch and feel goods being sold on-line or gauge voices and reactions of human beings.

### **3.Limitations of e-commerce to society-**

i. **Breakdown in human interaction:** As people become more used to interacting electronically there could be an erosion of personal and social skills which might eventually be detrimental to the world we live in where people are more comfortable interacting with a screen than face to face.

ii. **Social division:** There is a potential danger that there will be an increase in the social divide between technical haves and have-nots – so people who do not have technical skills become unable to secure better-paid jobs and could form an underclass with potentially dangerous implications for social stability.

iv. **Reliance on telecommunications infrastructure, power and IT skills:** This in developing countries nullifies the benefits when power, advanced telecommunications infrastructures and IT skills are unavailable or scarce or underdeveloped.

v. **Wasted resources:** As new technology dates quickly how do you dispose of all the old computers, keyboards, monitors, speakers and other hardware or software?

vi. **Facilitates Just-In-Time manufacturing:** This could potentially cripple an economy in times of crisis as stocks are kept to a minimum and delivery patterns are based on pre-set levels of stock which last for days rather than weeks. (case study)

In September 2000 in the UK, protestors demonstrating over the high price of petrol blocked petrol depots, preventing the delivery of petrol to petrol stations. Within days this led to petrol shortages throughout the UK. The knock-on effects were disruption in public transport, hospital services (with cancellation of non-emergency operations), school closures, shortages in food as supermarkets reported panic buying and some warned supplies could run out 'in days rather than weeks'. Petrol and other essential supplies such as bread and milk were rationed. Even after the blockade was lifted, it took two to three weeks for supplies to get back to normal. <sup>6</sup>

### **5.1 CONCLUSION:**

As E-commerce in any country is at nascent stage but growing at a very high rate, these competition issues may arise in the near future. E-commerce may become a platform for

the anti-competitive agreements between the companies. There are some international cases where anti-trust issues have come up with E-commerce as a platform.

As a future medium and form of market transaction, the Internet and e-commerce are of central importance for sustainable development. Research on the environmental effects of e-business is still in its infancy, but it is evolving very rapidly. The studies available so far make clear that e-commerce is inherently neither environment friendly nor environment hostile. The demand for future research in this field is considerable: A key reason why e-commerce, especially the business-to-business segment, is growing so quickly is its significant impact on costs associated with inventories, sales execution, procurement, intangibles like banking, and distribution costs. If these reductions become pervasive, e-commerce has the potential to be the application that ushers in the large productivity gains. Achieving these gains is therefore contingent on a number of factors, including access to e-commerce systems and the needed skills. However, what is unique about e-commerce over the Internet and the efficiency gains is that it promises the premium placed on openness. To reap the potential cost savings fully, firms must be willing to open up their internal systems to suppliers and customers. This raises policy issues concerning security and potential anti competitive effects as firms integrate their operations more closely.

#### **REFERENCES:**

1. E. Turban, J. Lee, D. King and H.M. Chung (1999), 'Electronic Commerce: A Managerial Perspective', Prentice Hall publication.
2. [www.whatis.com/ecommerce](http://www.whatis.com/ecommerce).
3. P. Timmers(2000), 'Electronic Commerce – Strategies and Models for Business-to-Business Trading', John Wiley & Sons publication.
4. U.S.Pandey, R.Srivastava, S. Shukla(2008), 'E-Commerce and its Applications', S. Chand & Company Ltd.
5. [www. e- commerce case study p.11](http://www.e-commerce case study p.11)
6. 'Crisis continues as fuel blockades lift Thursday', [http://news.bbc.co.uk/hi/english/uk/newsid\\_924000/924478.stm](http://news.bbc.co.uk/hi/english/uk/newsid_924000/924478.stm) (14 September, 2000).
7. C.S.V.Murthy (2010), 'e-Commerce = Concepts, Models, Strategies', Himalaya publishing house.
8. R.Kalakota, Andrew B.Whinston (1999), 'Frontiers of electronic commerce, Addison Wesley logman.
9. Borenstein, S. and Saloner, G. (2001), 'Economics and Electronic Commerce', 'Journal of Economic Perspectives'p.23