E-Commerce: Living and Working in an Interconnected World

Rajiv Kumar; Lecturer -Trainer
Institute of Cooperative Management, Dehradun (Uttarakhand) , A Unit of NCCT New Delhi Under Ministry of agriculture, Govt. of India

K.L.saini (Asstt. Professor)
S.D.M College of Management, Rajound Kaithal (Haryana)

Mukesh Kumar (Asstt. Professor)
Ganpati Institute of Management & Education Kaithal (Haryana)

Abstract— the web is the ultimate customer-empowering environment. With the technology advancing at a fast rate more and more people are open to computers and Internet. Here e-Commerce websites take a front seat moving out to the million of people searching or their kind of product or services online. In this paper we aim to provide more insight in the implications of e-commerce to different areas. We will primarily focus on the impacts and emergence of e-commerce to develop an in-depth sight into the developments of e-commerce. We will close this paper by setting potentials for e-commerce. Every coin has its two sides, similarly e-Commerce is to make the economy grow at a higher pace but there are certain flaws also such as: growing attrition rate of employees in an organization, taxation problem, privacy issues which are covered in last section of this paper. In brief internet is now a flourishing industry and is becoming a business world-wide. Now potential of e-Commerce is wide in the area of e-CRM, strategic planning and data mining etc. All the transactions in business world are just a mouse click away.

Keywords- E-Commerce; Electronic Data Interchange; Electronic Funds transfer; World Wide Web.

I. INTRODUCTION
The Internet is one of the newest and for many purposes best business communication channels. Doing business online is electronic commerce and there are four main areas in which companies conduct business online today: direct marketing, selling and service, online banking and billing, secure distribution of information and value chain trading and corporate purchasing. Wilson (2009) explained internet as the framework for the ever talked about information superhighway. The biggest technological advancement since the personal computer and the primary technological force causing all corporations to rethink their business model, the Internet is a system of millions of interconnected networks that spans to the earth. “Electronic Commerce means buying and selling of goods and services across the internet”. Young (2010) refers to electronic commerce as all forms of transactions relating to commercial activities, including both organizations and individuals that are based upon the processing and transmission of digitized data, including text, sound and visual images.

Electronic commerce is about doing business online. It is about using the power of digital information to understand the needs and preferences of each customer and each partner to customize products and services for them, and then to deliver the products and services as quickly as possible. Now a days business activities could be carried out electronically with electronic data interchange (EDI) and electronic funds transfer (EFT). A wide variety of commerce is conducted on Internet which includes: electronic funds transfer, supply chain management, internet marketing, online transaction processing, electronic data interchange (EDI), automated inventory management systems and automated data collection systems.

Emergence of E-commerce
History of E-Commerce provides with a detailed explanation of the different important phases and stages through which Electronic Commerce has actually evolved. McKnight (2009) found from history of ecommerce that it dates back to the invention of the very old notion of “sell and buy”, electricity, cables, computers, modems, and the Internet. In 1991 Internet was opened to commercial use. Since that date thousands of businesses have taken up residence at web sites. The emergence of electronic commerce started in the early 1970s with the earliest example of electronic funds transfer (EFT) which allows organizations to transfer funds between one another electronically. Then another technology electronic interchange (EDI) was introduced. It helps to extend inter business transactions from financial institutions to other types of business and also provides transactions and information
exchanges from suppliers to the end customers. The growth and acceptance of credit cards, automated teller machines (ATM) and telephone banking in the 1980s was also the forms of e-commerce. However, the early system development was limited to special networks such as large corporations and financial institutions which were costly and complex to administer for small business. During the 1990s, the Internet was opened for commercial use and it was also the period that users started to participate in World Wide Web (WWW) and the phenomenon of rapid personal computer (PCs) usage growth. The next important phase in the history of e-Commerce was the development of Mosaic web-browser in 1992. This web browser was soon given the form of a browser that could be downloaded and was named as Netscape. This further broadened the scope and possibility of electronic commercial transaction. However, from the 1992s onwards this includes enterprise resource planning systems (ERP), data mining and data warehousing. The development and adaptation of DSL and Red Hat Linux respectively again benefited the process of online business transaction. The year 2000 saw a major merger between AOL and Time Warner which marked another important step towards the development of e-Commerce. This merger proved to be very economically beneficial. History of E-Commerce is an important component that helps to understand Internet history and development stages better. Now the latest trend is the use of plastic cards for making payments. The medium is now shifting towards ‘non material’ and ‘money less’ transactions. It is called as electronic commerce. \(^1\)Shankar (2005) overviewed e-commerce domain and specified that history of e-commerce is unthinkable without Amazon and eBay which were among the first Internet companies to allow electronic transactions. Currently there are 5 largest and most famous worldwide Internet retailers: Amazon, Dell, Staples, Office Depot and Hewlett Packard.

Internet users are increasing day-by-day. Following is the chart showing internet users worldwide.

![Fig (2): A pie chart showing growth of e-Commerce worldwide](image)

### II. E-Commerce Applications

Mokhtarian (2010) while studying the impacts of e-commerce applications specifies that people usually buy the most popular categories of products sold in the World Wide Web are music, books, computers, office supplies and other consumer electronics. The scope of e-Commerce is growing rapidly. Everyone wants to be on the net whether it is primary, secondary or tertiary sector. The Maharashtra State Agriculture Marketing Board had initiated the use of IT in agricultural marketing. MARKNET (Agricultural marketing Intelligence Network in Maharashtra) is one of the leading projects under which APMC (Agriculture Produce Market Committee) have been computerized and connected through Internet for information exchange. MSAMB (Maharashtra State Agriculture Marketing Board) has launched www.msamb.com website. On this website comprehensive information of MSAMB is incorporated. All information is available in Marathi and English version. e-Agriculture is a promising area encompassing the agri-value chain through the application of Internet and related technologies.

The projects like “Gyanadoot” at Dhar (MP), “Wired Village” project at a Warana (Maharashtra), MS Swami Nathan foundation’s project at Veerampattinam (Pondicherry), has all contributed to demonstrate how these innovative projects executed by the committed agencies have facilitated in bridging the digital service world. Despite of the fact that Indian has just three phone lines per 100 people and has around five PCs per 100 people in such type of projects. Rural infrastructure is inadequate and power outages are long and frequent in rural areas. Despite of all such disparities ICT’s has contributed in wiring up villages, disseminating information, simplifying procedures and eliminating middlemen. These kind of projects demonstrate that rural consumers can and will benefit from connectivity. The rural community will enjoy new access to agricultural inputs, new markets for their products and in few years from now will find new educational opportunities through theses human-mediated Internet access projects.

The construction industry is becoming increasingly reliant on new electronic technology, ranging from project-specific web
sites and online equipment auctioning to bid analysis software and negotiation tools. Although the construction industry has been slow to warm up to the technology. Following chart shows a survey by Kinsley which indicate that 80 percent of contractors and owners use web-based communications, 25 percent purchase or sell products over the Internet and 17 percent bid for job online. Fifty eight percent of owners report they have used a project management website.

![Pie chart indicating usage of Internet in construction Industry](image)

**Fig (1.3):** Pie chart indicating usage of Internet in construction Industry

E-Commerce plays an important role in online purchasing, sales, project management websites, extranets and web-based bidding tools. It identifies significant areas of concern and when possible, suggests steps for diminishing potential problems and limiting liability. The Internet is the world’s largest market. Business World (June, 08) revealed that service sector of Indian economy contributed to around 55 percent of India’s GDP during 2006-08. This sector plays a leading role in the economy of India and contributed to around 68.6 percent of the overall average growth in GDP between 2002-03 and 2006-07. The service sector constitutes a large part of the Indian economy both in terms of Service Industry comprise mainly the following sectors:

- Banking and insurance
- Hotel and restaurant
- Transportation
- Trade
- Real estate
- Other services including education, medical and health, religious and other community services, legal services, recreation and entertainment services.

E-Commerce has given the products of goods and services the ability to market their goods to a global consumer base irrespective of the geographic location of their business. In e-commerce the marketers website is the gateway through which customers visit to look for information about company and the products or services they sell. E-Commerce websites should be user-friendly and designed with the needs of the target audience in mind. E-Commerce has also benefited the consumers by providing a better choice, assess to a grater volume of product information and competitive pricing at the click of a mouse. A small number of retail consumers and some corporate users in India have actively trying to expertise medium for transactional purposes. According to a TNS (Market Research, Information & Business Insight Services) worldwide survey, the overall percentage of Indian Internet users who bought something online in past few months has doubled over the last year. The widespread penetration and overall growth of the Internet is one of the major factors responsible for the growth of e-Commerce activities in India.

Another factor, which has played a role in the growth of this segment, is the increased availability and adoption of broadband. rising awareness and acceptance of the concept of buying online, growing customer expectations and increasing market competition are also driving forces especially B2C growth. Rediff.com recently officially launched faresearch.rediff.com along with a feature to book tickets on GPRS-enabled mobile phones. The another addition in e-ticketing that is booming is the movie tickets where websites of multiplexes like fame, PVR, Fun Cinemas are enjoying the boom.iticket.in is one of the similar sites which also provide tickets for events, theatre plays etc. looking at this boom Reliance Retail and Future Group (Pantaloons) are building up significant online presence (future group has launched futurebazar.com) to compliment their online stores. E-Governance is a feature of government to facilitate people for their transaction in one site.lickider (2010) provided a detailed study on working of public sector on internet and specified that governments can have a profound effect on the growth of commerce on the Internet. By their actions, they can facilitate electronic trade or inhibit it. In order for this global medium to flourish, it is critical that the legal framework supporting commercial transactions over the Internet be governed by consistent principles across state; national and international borders. This site is usually a hub of government departments of a state. This site facilitates a user to file an FIR and then simultaneously report to the other concerned departments. So with this facility a consumer doesn’t have to move anywhere. IT has a vital role to play in all transactions that the government undertakes. It helps the government cut red-tapism, avoid corruption and reach citizens directly. Microsoft is working with several state governments to help evolve e-governance in various states. In Gujarat there are websites where citizens log on and get access to the concerned government department on issues such as land, water and taxes. A very good example is of e-choupal started by ITC.

Now days, every bank is providing e-banking. In Hyderabad, through e-Seva, citizens can view and pay bills for water, electricity and telephones besides municipal taxes. They can also avail of birth / death registration certificates, passport applications, permits / licenses, transport department services, reservations, PAN card application etc online.Cairns(2008) researches the way of buying and selling consumer goods is changing and it's changing quickly a transaction that occurs between a company and a consumer is categorized as business to consumer transaction. E-commerce is a two way function but is usually done solely through the Internet. For instance a
user wishes to purchase some good quality computer. The user accesses the Internet site http://shopping.sify.html and follows the links to read a configuration details. After reading the details the user follows the links to place an order along with delivery and payment details directly into the merchant’s inventory system. The computer is then dispatched from the supplier’s warehouse and in theory is delivered to the consumer without delay. The reason for the big change can simply be explained with one word, Internet. Estimates indicate that approximately 600 million people are online worldwide. The reason for the big change can simply be explained with one word, Internet. Estimates indicate that approximately 600 million people are online worldwide. By the year 2009, the global Internet population will reach 1.17 billion. E-Commerce sales will increase at a steady 19 percent year-over-year rate, rising to $229 billion in 2008. By the end of 2008, online retail sales will account for 10 percent of total U.S. retail sales.

People usually buy over the Internet

<table>
<thead>
<tr>
<th>Airline tickets</th>
<th>Music</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel reservations</td>
<td>Food/Beverage</td>
</tr>
<tr>
<td>Computer hardware</td>
<td>Toys/Video</td>
</tr>
<tr>
<td>Apparel</td>
<td>Games</td>
</tr>
<tr>
<td>Consumer electronics</td>
<td>Office supplies</td>
</tr>
<tr>
<td>Car rental</td>
<td>Flowers</td>
</tr>
<tr>
<td>Health/Beauty</td>
<td>Linen/Home decorations</td>
</tr>
<tr>
<td>Books</td>
<td>Sporting goods</td>
</tr>
<tr>
<td>Computer software</td>
<td>Videos</td>
</tr>
<tr>
<td>Jewelry</td>
<td>Footwear</td>
</tr>
<tr>
<td>Appliances</td>
<td>Small appliances</td>
</tr>
<tr>
<td>Furniture</td>
<td>Tools/Hardware</td>
</tr>
</tbody>
</table>

Fig: (1.4) list of commodities customer usually purchases on Internet

III. Potential of E-commerce

A) Location-Based Marketing:

Currently e-Commerce is synonymous with PC and browser – based interaction. However, in the near future web enabled mobile phones and other handheld devices will become common for e-Commerce applications. Commerce application will by then evolve to track the location of mobile consumers using GPRS service. The location information will then be used to guide the consumer to nearby stores. If the consumer request a service, say taxi, drivers in the vicinity can be altered.

B) Consumer preferences and interests:

Even though the Internet makes it possible to search a very large collection of items, searches require effort and consumers stop their search before reaching the optimal selection. Data mining techniques applied to past histories and browsing patterns will allow e-Commerce system to learn the preferences and interests of consumers. E-Commerce sites will thus show advertisements and sales promotions relevant or applicable to a particular customer. Bhattacherjee (2008) contended that terabytes of data are generated everyday in many organizations. To extract hidden predictive information from large volumes of data, data mining (DM) techniques are needed. Organizations are starting to realize the importance of data mining in their strategic planning and successful application of DM techniques can be an enormous payoff for the organizations.

IV. Barter and government presence:

Ajzen (2010) showed in research classic examples of existing commerce activities such as reservations for air or train, or hotel booking that have moved online to take advantage of reduced costs and increased reach. However, more exciting are the opportunities we can imagine in the future, examples that we don’t see today like barter of second hand books, music or second hand automobiles etc.

V. Category management:

Although this function is today based upon offline customer research. Technology is now available that can allow the communities to vote for the merchandise that is popular. For example the web site could offer polls and other voting functions where customers specify the products they are interested in purchasing. In addition the sales information could help in estimating relative ranking and predicting future demand of the products.

VI. Customer Services:

Regan(2010) assert that every company is now worried to provide customer service as a part of their online sales experience. For this a number of online retailers have now established discussion groups around various topics related to various products categories. Taking this one step further discussion groups can be setup to resolve customer issues. Product experts with in the communities will be able to help new product owners in resolving their issues or answering their questions. This model will not only help reduce customer service costs, but will also build “stickiness” and a sense of belongingness to the product and the company.

VII. Taxing the E-commerce
In 1998 the US House of Representatives passed the Internet Tax freedom Act which creates a body designed to consider possible changes in the law of taxation on the Internet. This is to report back in two years as to whether and how taxation should take place. It calls for the US Administration to put pressure on to other countries to refrain from taxation of the Internet. This Act still requires approval by Senate before becoming law.

Most have welcomed this moratorium on Internet taxes. Not so the Center of Budget and Policy. The center claims that it is, in effect, giving a tax brake to the wealthy who can afford to shop-line, while leaving those who are not a part of the digital revolution to face higher taxes in shops. It also claims that there is no evidence that taxation would have a detrimental effect on Internet commerce and complains that the year ban on taxes practically rules out any future taxes on electronic commerce as the principle of non-taxation will be accepted as normal after three years.

According to the Information Technology Association of America, there should be no discrimination between products on the basis of whether they were sold on-line or by conventional means. They single out the case of purchasing tangible goods over the Internet, which are later delivered. These, says the ITAA, should be treated in the same way as mail order purchases. This the least difficult of the problems thrown up by electronic commerce as is relatively straightforward, as there is a physical address to which the product is sent, thus the jurisdiction in which sales tax is to be applied is known. On possible solution to the question of taxation of Internet transaction is the bit tax. This is a tax on every bit of ‘Value Added’ data transmitted at a rate of around 0.000001c. It would be collected by telecommunication companies; a satellite and cable networked and passed on to the relevant treasury. This tax is considered to be only way government can continue to raise taxes at the previous levels. Electronic commerce is not supposed to simulate the economy to such an extent that tax revenue will be generated from new sources. It has created a ‘new wealth’ but it also responsible for unemployment, as a result of downsizing as well as tax avoidance. The only way, that government can access this ‘new wealth’ but it is also responsible for unemployment, a result of downsizing as well as tax avoidance. The only way, that government can access this ‘new wealth’ is by way of a ‘bit tax’. There are, of course, problems with such a tax. It could discourage people from using the Internet. It would also be an unfair tax as would not discriminate on the basis of nature of the data transmits or the status of the parties involved. Thus a child’s video game would be subject to more tax than the transfer of valuable business information. It is also unclear which government would be entitled from a cross border than data flow. It could be argued that these are not new problems at all but simply new manifestations of old ones. For example: ordering a tangible item over the Internet is, in fact, no different to ordering one from a mail order catalogue. However this example is but one aspect of electronic commerce. Electronic commerce as a whole raises a whole host of problems that re truly, such as the downloading of software, the use of electronic money and the potential for instantaneous transactions and global access. The taxation problems raised by electronic commerce problems are real, especially if growth is as rapid as some have predicted. There is possibility that a large percentage of government revenue may be removed from the system. It is unlikely that any agreement on taxation is imminent, as there seems to be willingness to wait and see how electronic commerce develops and a desire to make sure it is not inhibited. If treated correctly, electronic commerce could be a major source of wealth creation, which has the potential to benefit everyone. The challenge is to ensure this happens. It must be given the opportunity to grow and create wealth, but that wealth must not be restricted to those who are able to take advantage of the technology to avoid their obligations. With the rapid undertake of electronic commerce, predictably, there has been a rush to enact laws. However, these laws suffer from two fundamental problems: the challenging nature of the technology has the potential to render any legislation redundant within a short period of time. In addition, national laws are inadequate to govern what is truly a global issue. Regulation poses further threats in that it risks stifling electronic commerce if it is unduly burdensome. The aim of any regulation of electronic commerce should therefore be to facilitate the adoption of electronic commerce or at the very least to avoid distraction of the market through laws which are not appropriate or which create strong local differences. Although there is argument that legislation is not necessary, that clearly is not the case. Existing laws are not capable of being adapted to this truly new sphere of business. However, because no clear picture exists of what electronic commerce encompasses, how widespread it has become, and how it is likely evolve in the future, it is difficult to reach a consensus on suitable laws. To some extent, this has been achieved through the various international agreements that have been signed, although no one agreement takes precedent over another and none are strictly binding. Of more legal effect are interstate agreements such as have taken place between EU, the US and Japan. If a model can be created between these countries it will serve to encourage others to adopt similar legislation, perhaps leading to the certainty that is craved by business.

VIII. Conclusion

The Internet is now a flourishing industry. With the technology advancing at a fast rate more and more people are open o computers and Internet. Here e-Commerce websites take a front seat moving out to the millions of people searching or their kind of product or services online. Sarkis (2009) enhanced understanding of e-commerce that electronic commerce consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks. Electronic commerce simply means buying and selling of goods and services on the Internet. As the emergence of e-Commerce provides a wide picture for the
important phases and stages of electronic commerce. The emergence of e-Commerce started with EDI and till now the technical innovation are being done as the potential of e-Commerce is wide in the area of e-CRM, strategic planning and data mining etc. e-Commerce is to make the economy grow at a higher pace but there are certain flaws also such as: growing attrition rate of employees in an organization, taxation problem, privacy issues etc but advantages cover all the cons as these are: Global availability, low cost, better and quicker business services, information sharing, customization.

IX. References: