E – Commerce System

Bhanuben N. Parmar
Ph.D. Research scholar
M. J. College of commerce,
Bhavnagar – 364002

Bankim R. Vaja
Bhavnagar - 364002
E-mail Id: bankimvaja7@gmail.com

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ABSTRACT
Since 1991, after economic reforms explicitly took place in India as a result of opening-up of the economy with a view to integrate itself with the global economy, the need to facilitate international trade both through policy and procedure reforms has become the foundation stone of India’s trade and fiscal policies. Electronic commerce (e-commerce) as part of the information technology revolution became widely used in the world trade in general and Indian economy in particular. With advancements in technology, there have been changes in the methodology for business transactions. India, being a rapid adaptor of technology is apace with the current scenario of electronic data exchanges and has taken to e-commerce. Upon the fast evolution of technology over the past few decades, society has become quick to adapt to new products and services. Now that society is peaking at the information age, standards for the validity and reliability of information have increased as consumers are more informed and empowered than ever. Since people expect more high quality and timely information, it changed the way companies conduct their businesses as well. In response to this trend, electronic commerce (e-commerce) has become an increasingly popular form of business that continuously proves its success and potential, as online sales based in the U.S. are expected to reach $327 billion in 2016. The E-Commerce market is thriving and poised for robust growth in Asia. There are players who made a good beginning. Their success depends on their understanding of the market and offering various types of features. This paper gives an overview of E-Commerce in India. And represent the various opportunities for retailers, wholesalers, producers and for people. In this paper we found that the Overall E-Commerce will increase exponentially in coming years in the emerging market of India.

Key words: E-Commerce, Growth of E-Commerce, Advantages and Disadvantages, Challenges, E-Commerce in India

INTRODUCTION
Over the last decade, the Internet has changed the way people buy and sell goods and services. Online retail or e-commerce is transforming the shopping experience of customers. The sector has seen unprecedented growth especially in the last two years. The adoption of technology is enabling the e-commerce sector to be more reachable and efficient. Devices like smart phones, tablets and technologies like 3G, 4G, Wi-Fi and high speed broadband is helping to increase the number of online customers. Banks and other players in e-commerce ecosystem are providing a secured online platform to pay effortlessly via payments gateways. The homegrown players have shown tremendous growth and attracted some big investors.

E-Commerce or Electronics Commerce is a methodology of modern
business which addresses the need of business organizations, vendors and customers to reduce cost and improve the quality of goods and services while increasing the speed of delivery. E-commerce refers to paperless exchange of business information using following ways.

**DEFINITION**

Electronic commerce (e-commerce or EC) describes the buying, selling, and exchanging of products, services, and information via computer networks, primarily the Internet. Some people view the term commerce as describing transactions conducted between business partners. To them, the term electronic commerce seems fairly narrow, so many use the term e-business (electronic business) instead. It refers to a broad definition of EC, not just buying and selling, but also servicing customers, collaborating with business partners, and conducting electronic transactions within an organization.

Electronic commerce or e-commerce refers to a wide range of online business activities for products and services. It also pertains to “any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact.”

A more complete definition is: E-commerce is the use of electronic communications and digital information processing technology in business transactions to create, transform, and redefine relationships for value creation between or among organizations, and between organizations and individuals.

**FEATURES**

E-Commerce provides following features

1. **Non-Cash Payment:**
   E-Commerce enables use of credit cards, debit cards, smart cards, electronic fund transfer via bank's website and other modes of electronics payment.
2. **24x7 Service availability:**

E-commerce automates business of enterprises and services provided by them to customers are available anytime, anywhere. Here 24x7 refers to 24 hours of each seven days of a week.

3. **Advertising / Marketing:**

E-commerce increases the reach of advertising of products and services of businesses. It helps in better marketing management of products / services.

4. **Improved Sales:**

Using E-Commerce, orders for the products can be generated anytime, anywhere without any human intervention. By this way, dependencies to buy a product reduce at large and sales increases.

5. **Support:**

E-Commerce provides various ways to provide pre sales and post sales assistance to provide better services to customers.

6. **Inventory Management:**

Using E-Commerce, inventory management of products becomes automated. Reports get generated instantly when required. Product inventory management becomes very efficient and easy to maintain.

7. **Communication improvement:**

E-Commerce provides ways for faster, efficient, reliable communication with customers and partners.

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**GROWTH OF E-COMMERCE**

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

   Website following B2B business model sells its product to an intermediate buyer who then sells the product to the final customer. As an example, a wholesaler places an order from a company’s website and after receiving the consignment, sells the end product to final customer who comes to buy the product at wholesaler’s retail outlet.

2. **Business - to - Consumer (B2C)**

   Website following B2C business model sells its product directly to a customer. A customer can view products shown on the website of business organization. The customer can choose a product and order the same. Website will send a notification to the business organization via email and organization will dispatch the product/goods to the customer.
3. Consumer - to - Consumer (C2C)

Website following C2C business model helps consumer to sell their assets like residential property, cars, motorcycles etc. or rent a room by publishing their information on the website. Website may or may not charge the consumer for its services. Another consumer may opt to buy the product of the first customer by viewing the post/advertisement on the website.

4. Consumer - to - Business (C2B)

In this model, a consumer approaches website showing multiple business organizations for a particular service. Consumer places an estimate of amount he/she wants to spend for a particular service. For example, comparison of interest rates of personal loan/ car loan provided by various banks via website. Business organization that fulfills the consumer's requirement within specified budget approaches the customer and provides its services.
5. **Business - to - Government (B2G)**

B2G model is a variant of B2B model. Such websites are used by government to trade and exchange information with various business organizations. Such websites are accredited by the government and provide a medium to businesses to submit application forms to the government.

![Business Organization to Website to Government](image1)

6. **Government - to - Business (G2B)**

Government uses B2G model website to approach business organizations. Such websites support auctions, tenders, and application submission functionalities.

![Government to Website to Business Organization](image2)

7. **Government - to - Citizen (G2C)**

Government uses G2C model website to approach citizen in general. Such websites support auctions of vehicles, machinery or any other material. Such website also provides services like registration for birth, marriage or death certificates. Main objectives of G2C website are to reduce average time for fulfilling people requests for various government services.

![Government to Website to Citizen](image3)

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**PAYMENT SYSTEMS**

E-Commerce or Electronics Commerce sites use electronic payment where electronic payment refers to paperless monetary transactions. Electronic payment has revolutionized the business processing by reducing paper work, transaction costs, labour cost. Being user friendly and less time consuming than manual processing, helps business organization to expand its market reach / expansion. Some of the modes of electronic payments are following.

- **Credit Card**
- **Debit Card**
- **Smart Card**
- **E-Money**
- **Electronic Fund Transfer (EFT)**

**SECURITY SYSTEMS**

Security is an essential part of any transaction that takes place over the internet. Customer will lose his/her faith in e-business if its security is compromised. Following are the essential requirements for safe e-payments/transactions:

1. **Confidential** – Information should not be accessible to unauthorized person. It Should not be intercepted during transmission.

2. **Integrity** – Information should not be altered during its transmission over the network.

3. **Availability** – Information should be available wherever and whenever requirement within time limit specified.
4. Authenticity –
There should be a mechanism to authenticate user before giving him/her access to required information.

5. Non-Repudiability –
It is protection against denial of order or denial of payment. Once a sender sends a message, the sender should not able to deny sending the message. Similarly the recipient of message should not be able to deny receipt.

6. Encryption –
Information should be encrypted and decrypted only by authorized user.

7. Auditability –
Data should be recorded in such a way that it can be audited for integrity requirements.

**BENEFITS OF E-COMMERCE**

**To organization**
- Expands a company’s marketplace to national and international markets. With minimal capital outlay, a company can quickly locate more customers, the best suppliers, and the most suitable business partners worldwide.
- Enables companies to procure material and services from other companies, rapidly and at less cost.
- Shortens or even eliminates marketing distribution channels, making products cheaper and vendors’ profits higher.
- Decreases (by as much as 90 percent) the cost of creating, processing, distributing, storing, and retrieving information by digitizing the process.
- Allows lower inventories by facilitating pull-type supply chain management. This allows product customization and reduces inventory costs.
- Lowers telecommunications costs because the Internet is much cheaper than value-added networks (VANs).
- Helps small businesses compete against large companies.
- Enables a very specialized niche market.

**To customers**
- Frequently provides less expensive products and services by allowing consumers to conduct quick online comparisons.
- Gives consumers more choices than they could easily locate otherwise.
- Enables customers to shop or make other transactions 24 hours a day, from almost any location.
- Delivers relevant and detailed information in seconds.
- Enables consumers to get customized products, from PCs to cars, at competitive prices.
- Makes it possible for people to work and study at home.
- Makes possible electronic auctions.
- Allows consumers to interact in electronic communities and to exchange ideas and compare experiences.

**To society**
- Enables individuals to work at home and to do less traveling, resulting in less road traffic and lower air pollution.
- Allows some merchandise to be sold at lower prices, thereby increasing people’s standard of living.
- Enables people in developing countries and rural areas to enjoy products and services that are otherwise are not available. This includes opportunities to learn professions and earn college degrees, or to receive better medical care.
- Facilitates delivery of public services, such as government entitlements, reducing the cost of distribution and chance of fraud, and increasing the quality of social services, police work, health care, and education.
LIMITATIONS OF E-COMMERCE

Technical Limitations
1. Lack of universally accepted standards for quality, security, and reliability.
2. Insufficient telecommunications bandwidth.
3. Still-evolving software development tools.
4. Difficulties in integrating the Internet and EC software with some existing (Especially legacy) applications and databases.
5. Need for special Web servers in addition to the network servers.
6. Expensive and/or inconvenient Internet accessibility for many would-be users.

Nontechnical Limitations
1. Unresolved legal issues (see Section 9.7 and Chapter 15).
2. Lack of national and international government regulations and industry standards.
3. Lack of mature methodologies for measuring benefits of and justifying EC.
4. Many sellers and buyers waiting for EC to stabilize before they take part.
5. Customer resistance to changing from a real to a virtual store. People do not yet Sufficiently trust paperless, faceless transactions.
6. Perception that EC is expensive and unsecured.
7. An insufficient number (critical mass) of sellers and buyers exists for profitable EC Operations.

CHALLENGES
Though the e-commerce sector is growing exponentially in India, it faces several challenges like customer mindset, high cash on delivery (CoD) based orders, reachability, poor courier services and other policy-related issues.

1. High competition:
There are several players doing the same business in almost the same way. With intense competition the profitability is decreasing due to aggressive pricing strategies, heavy discounts and offers, free delivery, high commissions to affiliates and vendors during sale period to name a few. Online retailers lost around ` 10 billion because of heavy discounts to attract customers.

2. Poor logistic & supply chains:
E-commerce companies live on the reach and the ability to stock more items than physical stores as these are their biggest differentiators. With this benefit also comes the challenge of robust supply chains and logistics networks, which are not comparable and developed to global standards in India. The courier companies do not have nationwide delivery networks and also do not have the skills of handling commercial value goods. They also do not have the skills for handling CoD, recheck return parcels, and other complexities related to digital sale. This is forcing several e-tailers to establish their own delivery network across the country and might have to engage with multiple shipping methods using FedEx or DHL for the last mile delivery.

3. Payments:
E-commerce companies have to offer a wide variety of payment options including CoD, credit and debit card, internet banking, among others. 60-70% of the payments are made using the CoD option in India as customers fear to share information online and do not trust the website for secure payments. Moreover, the return percentage of orders in CoD is much higher compared to online payments. To counter these fears, e-tailers have started to provide facility of paying with Card on Delivery. For example, Amazon’s delivery person brings point-of-
sale device to accept payment at customer premise.

**E - COMMERCE IN INDIA**

For developing countries like India, e-commerce offers considerable opportunity. E-commerce in India is still in growing stage, but even the most pessimistic projections indicate a boom. It is believed that low cost of personal computers, a growing installed base for Internet use, and an increasingly competitive Internet Service Provider (ISP) market will help fuel e-commerce growth in Asia’s second most populous nation. The first e-commerce site in India was rediff.com. It was one of the most trafficked portals for both Indian and non-residents Indians. It provided a wealth of Indian-related business news a reach engine, e-commerce and web solution services. The past 2 years have seen a rise in the number of companies enabling e-commerce technologies and the internet in India. Major Indian portal sites have also shifted towards e-commerce instead of depending on advertising revenues. The web communities built around these portal sites with content have been effectively targeted to sell everything from event and mouse tickets the grocery and computers. The major in this services being Rediff.com and the net and India plaza with started a shopping section after In spite of RBI regulation low internet usage e-commerce sites have popped up everywhere hawking things like groceries, bakery items, gifts, books, audio and video cassettes, computer etc. none of the major players have been deterred by the low PC penetration and credit card.

India is developing rapidly and if development is to be measured, how can we ignore the role of e-commerce in it. The internet user base in India might still be a mere 100 million which is much less when compared to its penetration in the US or UK but it’s surely expanding at an alarming rate. The number of new entrants in this sphere is escalating daily and with growth rate reaching its zenith it can be presumed that in years to come, customary retailers will feel the need to switch to online business.

Certain unique attributes of the E-commerce industry in India such as cash on delivery mode of payment and direct imports that lower costs considerably are probably going to bring about a speedy growth in e-commerce in years to come.

**CONCLUSION**

The rapid pace of growth of the e-commerce industry is not only indicative of the increasing receptiveness of the public but has also brought to the fore the issues that the legal system of the country has been faced with.

From the initial years when internet was a new phenomenon to recent times where internet has become a basic necessity for every household in most metropolitan cities, the e-commerce industry has come a long way. The legal system has constantly tried to catch up especially with the enactment of the various rules under the IT Act to deal with a host of issues emerging from the use of internet. Moreover the IP issues in e-commerce transactions have taken a new form with users finding loop holes to not only easily duplicate material but also mislead other users. Hence, much more is needed to effectively regulate the tangled web.

Therefore an in-depth understanding of the legal regime and the possible issues that an e-commerce business would face coupled with effective risk management strategies has been the need of the hour for e-commerce businesses to thrive in this industry.

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Success usually comes to those who are too busy to be looking for it.

~ Henry David Thoreau