

E- Commerce: Future of Business***Rajiv Sharma, Department of Computer Science & Applications, A.S. College, Khanna****Abstract**

For developing countries like India, e-commerce offers considerable opportunity. E-commerce in Indian region is still in nascent stage, but even the most-pessimistic projections indicate a boom. It is believed that low cost of PC's (personal computers) and other electronic devices, a growing installed base for Internet usage, and an increasingly competitive Internet Service Providers (ISP) market will help to fuel e-commerce growth in Asia's second most populous nation. India's middle class families of 288 million people is equal to the entire United States consumer base. This enables India as a real attractive market and area for electronic commerce. To make successful e-commerce transactions both the payment and delivery services must be made efficient. Major Indian portal web sites have also moved towards e-commerce instead of depending on simple advertising revenue. Many of the sites are now selling a diverse range of products and services flowers, greeting cards, and movie tickets, electronic gadgets, and computers. With the stock exchanges in India coming online the time for true electronic commerce has finally arrived. On the other negative side there are many challenges faced by e-commerce web sites in India. The relatively small plastic money or credit card population and lack of uniform credit agencies create a variety of payment challenges that are still unknown in India. Delivery of material to consumer by courier and postal services is not so much reliable in smaller cities, towns and other rural areas of India. However, many Indian Banking have put the Internet banking facilities. The speed post and courier system has also improved tremendously in recent years. Modern communication technology like secured socket layer (SSL) helps to protect against payment frauds, and to share information with suppliers and business partners. With more improvement in e-payment systems and delivery system it is expected that India will soon become a major player in the e-commerce market.

Keywords: e-commerce, internet service provider (ISP), secured socket layer, electronic payment

Introduction

As a symbol of globalization, e-commerce represents the cutting edge of success in today's digital era. E-commerce means electronic commerce and pertains to business or trading in goods and services through the electronic channel, i.e. the Internet, TV and phone. On Internet, it pertains to a website, which sells various products or services directly from the website using a shopping cart or shopping basket system and allows credit card or electronic payments. It involves conducting business with the help of the electronic media, making use of the information technology such as Electronic Data Interchange (EDI). In simple words, we can say that Electronic commerce involves buying and selling of goods and services over the internet or World Wide Web. Online customers can purchase anything right from a car or a cake sitting comfortably in their room and gift it to someone sitting miles apart simply by a click of mouse.

The number of Internet users around the world has been steadily growing and this growth has provides the impetus and the opportunities for global and regional electronic commerce. However with Internet, different characteristics of the local environment, both infrastructural and socioeconomic, have created a significant level of variation in the acceptance and growth of electronic commerce in different regions of the world. Almost a decade back when dot-com businesses were showing downfall trends and during those time, no commercial activities was happening online or on internet. And without any commercial activities internet means nothing in most cases. Since those earlier study, the growth of e-commerce has been slow. But it is the beginning to take off for future. Though this industry is growing at a very fast speed, still Indian e-commerce has a long way to go and its infrastructure and practices are in its infancy stage.

In today's environment, technological developments in the field of communication and computer technologies has made computer networks an integral or important part of our online economic infrastructure. It provides multiple benefits to consumers and facilitates goods and services at lesser cost, more variety and saves time. Consumers can buy goods or services sitting at their homes or offices. Similarly, online services such as ticketing for all kind of travel, banking, bill payment, hotel consumers etc. As per online industry experts, this industry will increase exponentially in times to come. A recent report by the Internet and mobile association of India (iamai.in) reveals that India's electronic commerce market has grown over 550 % in past 5 years.

E- Commerce

Electronic commerce (or e-commerce) encompasses all business conducted by means of computer networks and electronic devices. Advances in electronic communications and computer technologies in past few recent years have made computer networks and communication an integral part of the economic infrastructure. Daily more and more companies are facilitating transactions or services over web. There has been tremendous competition to target each and every mobile and computer owner who is connected to the Web through internet. Although business-to-business transactions play an important role in e-commerce market, a share of e-commerce revenues in developed countries is generated from business to consumer related transactions. E-commerce provides many benefits to the consumers in form of availability of goods at lower cost, wider choice/variety and saves time. People can buy goods and services with just a click of mouse button without moving out of their house or office. Business to business transactions will represent the largest revenue generation but online retailing over internet will also enjoy a drastic growth. Online businesses like financial services, travel, entertainment, and groceries are all likely to grow in coming years.

E- Commerce in India

For developing countries like India, electronic commerce offers considerable opportunity to grow. E-commerce in India still in nascent stage, but even the most pessimistic projections indicate a great boom. It is believed that low cost of personal computers/mobile devices, a growing installed base for Internet use, and an increasingly competitive Internet Service Provider (ISP) market will help to fuel e-commerce growth in Asia's second most populous country. Indian middle class of 288 million people is equal to the entire U.S. consumer base. This makes India real attractive market for e-commerce business. To make a successful e-commerce/online transaction both the payment and delivery services must be made efficient. There has been a rise in the number of companies' using e-commerce in the recent past. Major Indian portal sites have also shifted towards e-commerce instead of depending on merely advertising revenue. Many web sites are now selling a diverse range of products and services from flowers, greeting cards, and movie tickets to groceries, electronic devices, and computers. With stock exchanges coming online the time for true electronic commerce in India has finally arrived. On the other negative side there are many challenges faced by e-commerce web sites in India. The relatively small plastic money or credit card population and lack of uniform credit agencies create a variety of payment challenges which are still unknown in India. Delivery of goods or services to consumer by couriers and postal services is not very reliable in smaller cities, towns and rural regions. However, many Indian Banks have put the Internet banking facilities. Now the speed post and courier system has also improved tremendously in recent years. Modern computer technology and communication like secured socket layer (SSL) helps to protect against payment fraud, and to share information with suppliers and business partners online. With further improvement in online payment and delivery systems it is expected that India will soon become a major role player in the e-commerce market. While many companies and organizations in India are beginning to take advantages of the potential of e-commerce, critical challenges are still remains to be overcome before e-commerce business would become an asset for common people in India. India's e-commerce sector is on the

growing curve and experiencing the growth. The Online Travel Industry is the biggest segment in e-commerce and is booming due to largely to the Internet-savvy urban population in India. The other segments of market, categorized under online non-travel industry, include e-Tailing i.e. online retail, online classifieds and Digital Downloads which is still in a nascent stage. The online travel industry has private players such as Makemytrip, Cleartrip and Yatra as well as a strong government players presence in terms of IRCTC, which is a great successful Indian Railways initiative. The online classified segment is broadly divided into three major sectors; Jobs, Matrimonial and Real Estate. Mobile Commerce (M-commerce) is also growing rapidly and proving to be a online stable and secure supplement to e-commerce due to the record growth in mobile device user base in India, in recent years.

A report by the Internet and Mobile Association of India has reported that India's E-commerce market is growing at an average rate of 70% annually and has grown over 550 percent since 2007.

Apparently, more online users in India are willing to make purchases online through the Internet. Overall e-commerce industry is poised to experience a high growth rate in the next couple of years. The 70% year on year growth is expected to continue and India's e-commerce market is forecast to reach \$US 10 billion in year 2011.

Application 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 impacts on many areas of business and segments of business management studies. For example:

1. Marketing – issues of online advertising, marketing strategies and consumer behaviour and cultures. It is one of the areas in which it impacts particularly is direct marketing. In the past years this was mainly door to door, home parties and mail order using print catalogues or leaflets. This moved to telemarketing and TV selling with the advancements in telephone and television technology and finally developed into e-marketing spawning 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, eg. linking front and back office legacy systems with the web based technology.

3. Finance & Accounting – on-line banking; issues of transaction costs; accounting and auditing implications where the intangible assets and human capital must be tangibly valued in an increasingly knowledge based economy of India.

4. Economics – the impact of e-commerce on local and global economies of various countries; understanding the concepts of a digital and knowledge based economy and how that fits into modern economic theory.

5. Production & Operations Management – the impact of on-line processing has led to reduced cycle times in production and operation management. It takes few seconds to deliver digitized products and services electronically on customer's device; similarly the time for processing orders online can be reduced by more than 90%t from days to minutes. Production systems are integrated with finance, marketing and other functional systems as well as with business partners and customers and become important part of this process.

6. Production & Operations Management (manufacturing)

Moving from mass production to demand driven, mass customization customer pull rather than the manufacturer push of the past. Web based Enterprise Resource Planning systems (ERP) can also be used to forward orders directly to designers and production floor within seconds online, thus cutting production cycle times by up to 50%, especially when manufacturing units/plants, engineers and designers are located in different regions/countries. In assembler companies, where a specific product is assembled from a number of different components sourced from a number of manufacturers, communication, collaboration and coordination are critical or important – so electronic bidding can brought cheaper components and having flexible procurement systems allows fast changes at minimum cost so procurement of inventories can be minimized and profit maximized.

7. Management Information System – analysis, design and implementation of electronic business systems within an organization; issues of integration of front-end and back-end system in MIS.

8. Human Resource Management – issues of online recruiting, home working and ‘intrapreneurs’ were working on a project by project basis replacing permanent employees in organization.

9. Business Law & Ethics– the different legal and ethical issues have arisen as a result of a global virtual/online market. Issues such as copyright laws, privacy of customer information, legality of e-contracts.

Key Drivers of E-Commerce

E-commerce industry has touched turn-over of Rs 46520 crore with 47 percent growth in 2011 .Out of which 81 percent of electronic commerce revenues are from online travel vertical. The factors mentioned here are major reasons for electronic commerce boom in India. Increasing online or Internet Users - Growing internet/online users is one of the important factors for the growth of this industry. As per data available from IAMAI, online/internet users have grown by 38 percent in 2011 and reached a subscriber base of 121 million. Though the internet users have grown 38 percent in 2011 and 121 million online/internet users account for only 9 percent of our population. India has 9 percent internet penetration whereas in China and U.S it is 40 to 45 %. Still 121 million online/internet users is the third largest online population in the world. This growing no. shows that our country people has started familiarity with web or online services. While travel industry dominated electronic commerce revenues with 80 percent market share in 2011.

- Technology advancements such as VOIP (Voice over IP) have bridged the gap between buyers & sellers online.
- The emergence of blogs as an avenue for information dissemination and 2 way communication for online retailers and electronic commerce vendors.
- Improved fraud prevention technology that offer a safe and secure online business environment and help prevent credit card frauds, identity theft.
- Bigger web presence of SME and Corporate because of lower marketing and infrastructure costs.
- The young population of India find online transactions much easier.

Benefits of E-Commerce

Benefits of e-commerce to organizations

International Market- What used to be a single physical marketplace located in a geographical area has now become a borderless marketplace beyond the national markets. By becoming electronic commerce enabled, businesses now have access to people all around the world. In effect all electronic commerce businesses have become virtual/online multinational corporations.

Operational Cost Savings- The cost of creating, processing, distributing, storing and retrieving paper printed information has decreased.

Mass Customization- Electronic commerce has revolutionized the way consumers buy good and services. The pull type processing allows for products/services to be customized to the customer's requirements. In the past years when Ford first started making motor cars, customers could have any colour so long as it was black. Now customer can configure a car according to their needs within minutes online via the www.ford.com.

Lower Telecommunication Costs- 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.

Digitization of Product & Process- 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.

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

Benefits of e-commerce to consumers

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.

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

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 (for example www.moneyextra.co.uk for financial products and services).

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.

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).

Benefits of e-commerce to society

Flexible working practices- It 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.

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.

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. There is a growing awareness among the business community in India about the opportunities offered by e-commerce.

Challenges of E-Commerce: Following are some of the infrastructural barriers responsible for slow growth of ecommerce in India. Though some of these even offer new business opportunities, betterment is already happening in those areas of growth. These factors are as below:

Taxation – Difference in state tax policies, VAT, octroi etc. creates commercial hurdles in ecommerce business of thin margins. For example imposing of service tax on ecommerce transactions may result in making online shopping more expensive.

Vendor Management – Even if one's system may be most advanced, one is needed to deal with insufficient system of inventory management for product procurement .For updating the pricing on one's website there is no mechanism in place to check for daily pricing.

Payment Collection And Logistics - Though these both services are in correction mode and due to this ecommerce industry has witnessed tremendous growth in recent years. Still a lot of work is required on these two factors. Even payment collection and logistics for ecommerce industry presents new business opportunities for new age entrepreneurs. If the product is delivered safe and secure to right person in right time frame, it gives a seamless experience to user. An honest approach to logistics and payment collection can multiply growth in coming times.

Business of Thin Margins - Ecommerce is a business of thin margins. Following an aggressive business model cannot be recommended. Even the insurance on high value shipped articles is needed sometimes, resulting in increasing the cost. Low value items have significant transportation cost again resulting in increasing the cost. Activities that make online shopping expensive may result in downward trend for ecommerce industry. Though growth in market is easy, profitable growth is not. Managing an effective back-end, a country wide delivery network, warehouses, inventory management, logistics, etc. are the key factors in managing the cost .As price wars controls revenue side of any business, companies should be careful about burning cash in ads or in irrational price wars to bag customers.

Cyber act and legal system - Though IT has offered many advantages, number of challenges has been posed to legal system. The information transferred electronically makes into a contract that raises many issues that cannot be answered by existing provisions of contract.

Jurisdictions – Electronic transactions does not have any national or international boundaries .So in case of any dispute it cannot be resolved with common law principles of that land .As different nations have different laws for cyber space . The jurisdiction issues cannot include one nation and hence needs global resolution.

Risk as perceived by online shoppers – Though India has 9% internet penetration (till dec 2011) and growing at a very fast pace. Still consumers perceive it as a risk because of online fraud, identity theft and phishing (Stealing consumers personal information) .Some studies reveal that 23 % of online shoppers quit even before registration at particular website because of online frauds .This could be a reason, why credit card penetration in our country is very less (currently only 2% of our population holds a credit card). Increase in cybercrimes is a great matter of concern among online shoppers.

Price Undercutting Among Ecommerce Players - Due to intense sales competition, everybody is in cut throat price war. Even some reports stated that companies are selling below cost to acquire customers. Recently some companies have shut down shops due to cut throat price war.

Behavior of Indian Consumer – Indian consumer has a habit of buying products only at physical appearance. In our country shopping is very much need driven as compared to US consumers, who are impulsive buyers. New online shopper's wants to buy things that don't cost much are low value items initially as it generates confidence among them.

Problems with compatibility with older and newer 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.

Conclusion

The future of ecommerce industry in India is quite promising and growing internet users have fuelled to its growth especially among middle class. Today, we are talking about e-commerce progress level of India, the seventh-largest by geographical area, the second-most populous country, and the most populous democracy in the world. Indian e-commerce space percentage is getting higher as more and more online retailers enter the market. Although this level of entry in the ecommerce market is good from a long term perspective, the challenge is that most entrepreneurs don't have the resources or capital to wait for years before they can get profits. The past 2 years have seen a rise in the number of companies' embracing e-commerce technologies and the Internet in India. Most e-commerce sites have been targeted towards the NRI's with Gift delivery services, books, Audio and videocassettes etc. Major Indian portal sites have also shifted towards ecommerce instead of depending on advertising revenue. The web communities built around these portal sites with content have been effectively targeted to sell everything from event and movie tickets the grocery and computers. Indian Banks too have been very successful in adopting EC and EDI technologies to provide customers with real time account status, transfer of funds between current and checking accounts, stop payment facilities. Bank also have put their electronic banking over the internet facilities in place for the upcoming e-commerce market speed post also plain to clone the federal express story with online package status at any moment in time . The future does look very bright for ecommerce in India with even the stock exchanges coming online providing a online stock portfolio and status with a fifteen minute delay in

prices. The day cannot be far when with RBI regulations will be able to see stock transfer and sale over the Net with specialized services.

With the rapid expansion of internet, ecommerce, is set to play a very important role in the 21st century, the new opportunities that will be thrown open, will be accessible to both large corporations and small companies. The role of government is to provide a legal framework for E Commerce so that while domestic and international trade are allowed to expand their horizons, basic rights such as privacy, intellectual property, prevention of fraud, consumer protection etc are all taken care of.

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