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E-COMMERCE INDUSTRY IN INDIA – A BOOMING SECTOR

Anilkumar Enukurthi
Associate Professor, Department of Business Management, Gandhi Academy of Technical Education, Telangana, India.

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 inthe world trade in general and Indian economy in particular. With advancements in technology, there havebeen 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. In view of this, this article tries to present a snapshot of the evolution of e-commerce business indicating the chronological order, category of e-commerce business, description of organizations involved in e-businesses in India, key characteristics of the firms engaged in e-commerce application, to examine the growth of e-commerce in both physical and financial terms, to evaluate the benefits obtained from e-business, to critically analyze the barriers and constraints involved in flourishing e-commerce businesses in India and finally to develop a framework for effective dissemination of e-commerce in India. The role of government should be 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.

Key Words: E-Commerce, India, Internet, Online.

INTRODUCTION

Electronic commerce is presently an indispensable ingredient of India's trade facilitation policy. Since 1991,after economic reforms explicitly took place in India as a result of opening 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. Resultantly, last few years have witnessed a technological revolution accompanied by the wide spread use of the Internet, web technologies and their applications. 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.

As a symbol of globalization, e-commerce represents the cutting edge of success in this digital age and it has changed and is still changing the way business is conducted around the world. The commercialization of the Internet has driven electronic commerce to become one of the most capable channels for inter-organizational business processes. Consequently, 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 prices1. The internet augments the traditional businesses to be transformed because 'incumbents (in markets) and large firms do not have the advantage 'just by virtue of being there first or by being of big'. The implication of perfectly competitive market as the world will observe is that market will produce an efficient allocation of resources. Internet has accurately been an effective instrument in changing the straightforward ways of doing business. In any market with no entry barriers – the 'Net' is biggest of them, the continuous arrival of competition will, routinely, 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 rapidly developing countries like India 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

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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. Online businesses like financial services, travel, entertainment, and groceries are all likely to grow. E-commerce evolved in various means of relationship within the business processes. It can be in the form of electronic advertising, electronic payment system, electronic marketing, electronic customer support service and electronic order and delivery. E-commerce stands for electronic commerce and pertains to trading in goods and services through the electronic medium, i.e. the Internet or phone. On the Internet, it pertains to a website, which sells products or services directly from the site using a shopping cart or shopping basket system and allows credit card 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 general connotation, Ecommerce involves paperless transactions and usage of EDI (Electronic Data Interchange), electronic mail, bulletin boards, fax transmissions, and electronic fund transfers. It refers to the process of trading goods and services through an electronic medium such as the internet. 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 eCommerce. E-commerce is being used for purchase and sale of multiple products and there are multiple players using various portals and websites for this purpose. The information technology industry might observe it as an electronic business application aimed at commercial transactions. It can involve electronic funds transfer, supply chain management, e-marketing, online marketing, online transaction processing, electronic data interchange (EDI), automated inventory management systems, and automated data collection systems. It typically uses electronic communications technology such as the Internet, extranets, e-mail, e-books, databases, and mobile phones.

DEFINITIONS OF E-COMMERCE

The Asia Pacific Economic Co-operation ("APEC") has adopted a comprehensive definition of e-commerce to include '*all business activity conducted using a combination of electronic communications and information processing technology'*

The United Nations Economic and Social Commission for Asia and the Pacific ("UNESCAP") have also defined e-commerce as '*the process of using electronic methods and procedures to conduct all forms of business activity'*

THE OBJECTIVES OF THIS ARTICLE ARE

a. To present a snapshot of the evolution of e-commerce business indicating the chronological order, category of e commerce business, description of organizations involved in e-businesses in India, key characteristics of the firms engaged in e-commerce application.
b. To examine the growth of e-commerce in both physical and financial terms.
c. To evaluate the benefits obtained from e-business.
d. To critically analyse the barriers and constraints involved in flourishing e-commerce businesses in India.

Chronological Order in the Evolution of E-Commerce

E-commerce can be traced back to the first electronic computers, which were built in the 1950s (Smith, K.T. 2008). However, e-commerce did not gain extensive popularity until development of the World Wide Web in the 1990s. A chronological sequence of events concerning the Internet and e-commerce is provided below.

Chronological order of Events in the Evolution of Web and E-Commerce

- 1946 : The first electronic computer, ENIAC, is constructed at the University of Pennsylvania.
- 1957 : The Soviet Union launches Sputnik, the first artificial satellite.
- 1958 : To counter Soviet technological advances, the U.S. forms the Advanced Research Projects Agency (ARPA), with the Department of Defense, to develop U.S. leadership in science and technology applicable to the military.
- 1969 : ARPANET, the forerunner of the Internet, established with four nodes: UCLA, Stanford, UC-Santa Barbara, and University of Utah.
- 1970 : First applications of electronic data interchange (EDI).

- 1973: First international connection to ARPANET, University College of London. Initial work on a transmission protocol (later to be called TCP/IP) that allows diverse computer networks to interconnect and communicate with each other.
- 1974 :BBN opens Telnet, the first commercial version of ARPANET.
- 1982: Transmission Control Protocol (TCP) and Internet Protocol (IP) established by ARPA. This leads to a definition of an "internet" as a connected set of networks, specifically those using TCP/IP, and "Internet" as connected TCP/IP internets.
- 1983: Internet Activities Board (IAB) is created.
- 1984: Science fiction author William Gibson coins the term "cyberspace" in his novel, *Neuromancer*. Internet host computers (computers with registered IP address) exceed 1,000.
- 1987: Internet users exceed 10,000.
- 1988: Internet worm disables 6,000 of 60,000 Internet hosts. A Cornell University graduate student created the worm. Infected computers were connected through ARPAnet and other E-mail networks in the Internet loop. Some of the US's top science and research centers were affected.
- 1989: Internet users exceed 100,000.
- 1990: The ARPANET is shut down.
- 1991: Sir Tim Berners-Lee, working at CERN in Geneva, develops a hypertext system to provide efficient information access. He posts the first computer code of the World Wide Web in a relatively innocuous newsgroup, "alt.hypertext." Later, people refer to the Internet itself as the Web.
- 1992: World Wide Web released by CERN.
- 1994: Pizza Hut sells pizza on its website. First Virtual, the first cyber bank, opens.
- 1997: Inception of business-to-business (B2B) e-commerce.
- US Postal Service issues electronic postal stamps.
- 2000: Internet users exceed 360 million.
- 2011: Internet users tally almost 2 billion. Users in over 200 countries are connected. [Sources: Smith et al. (2010) and Internet World Stats (2011)].

Distinct Categories of E-Commerce

E-commerce, which primarily refers to buying, selling, marketing and servicing of products or services over internet is classified into B2B (Business to Business), B2C (Business to Consumer) and C2C (Consumer to Consumer) and C2B(Consumer to Business). Four distinct categories of electronic commerce can be identified as follows:

- *Business-to-business (B2B)*
  B2B transactions are largely between industrial manufacturers, partners, and retailers or between companies. Business-to-Business refers to the full spectrum of e-commerce that can occur between two organizations. Among other activities, B2B ecommerce includes purchasing and procurement, supplier management, inventory management, channel management, sales activities, payment management, and service and support.
- *Business-to-Consumer (B2C)*
  B2C transactions take place directly between business establishments and consumers. Although business-to-business transactions play an important part in e-commerce market, a share of e-commerce revenues in developing countries like India is generated from business to consumer transactions. Business-to-Consumer e-commerce refers to exchanges between businesses and consumers, e.g., Amazon.com.
- *Consumer-to-Consumer (C2C)*
  C2C sites don't form a very high portion of web-based commerce. Most visible examples are the auction sites. Basically, if someone has something to sell, then he gets it listed at an auction sites and others can bid for it. Consumer-to-Consumer exchanges involve transactions between and among consumers
- *Consumer-to-Business (C2B)*
  Consumers can band together to form and present themselves as a buyer group to businesses in a consumer-to-business relationship. These groups may be economically motivated as with the demand

aggregator, Mercata.com, or socially oriented as with cause-related advocacy at voxcap.com.

FIVE THINGS ABOUT INDIA'S E-COMMERCE

In a report on e-commerce, however, broking firm Motilal Oswal says that this is just the start of a multi-year growth for the e-commerce sector in India. Indian retailers, therefore, do not have to be too concerned as despite strong growth in USA and China, e-tailing is still only 5-6% of total retail sales there.

1. India is almost 10 years behind China in the e-commerce space. China's inflection point was reached in 2005 when its size was similar to India's current market size. Thankfully for India the dynamics currently are similar to what existed in China then – growing broadband penetration, acceptance of online marketplaces, and lack of physical retail infrastructure in many places.
2. Forget the Flipkarts, Snapdeals and Amazons. Travel is where the real money in India's e-commerce is. Online travel accounts for nearly 71% of e-commerce business in India. This business has grown at a compounded annual growth rate (CAGR) of 32% over 2009-13. E-tailing, on the other hand, accounts for only 8.7% of organised retail and a minuscule 0.3% of total retail sales. Even within sales of physical goods, books are a mere 7% of total book sales, mobile phones are 2% of all handsets sold, and fashion goods sold online are just 1%. Online jewellery sales account for only 0.2 per cent of all jewellery sold. Motilal Oswal, however, expects e-tailing to pick up with a focus on fashion.
3. Alibaba is an outlier when it comes to margins and making money in the e-commerce ecosystem. The Chinese company makes an operating profit of 40% compared to industry standard (US and China) of 8-10%. Travel sites typically make 2.3%. Amazon, the industry pioneer, is yet to achieve healthy profitability even after two decades of dominance. Indian players, the report points out, are not even thinking of profitability yet. It's a game of market share and market penetration, causing all serious players to have a war chest ready for when the industry scales multiple times.
4. For every Rs 100 spent on e-tailing, Rs 35 is spent on supporting services like warehousing, payment gateways, and logistics, among others. Delivery costs a platform owner 8-10% implying significant burn. Though 50-60% of delivery logistics today are handled by large e-tailers themselves, this proportion may reduce going forward as the participation of lower tier cities picks up. Presently, aggressive pricing in India is leading to e-tailers making losses on every segment. For a Rs 100 sale of a book, the e-tailer incurs a loss of Rs 24, a loss of Rs 13 in mobiles, and Rs 8 in apparel.
5. Demand in India exists across 4,000-5,000 towns and cities, but there is no significant presence of physical retail in almost 95% of these. High real estate cost is one of the main reasons why organised retail is unable to expand at speeds expected earlier. Real estate as a percentage of sales is 14 times higher than in the US. For large retailers in India, it is 7% of sales as compared to 0.5% for Walmart.

Facilitators of e-commerce in India

A. Information directories:

The products and services are listed with appropriate sub-headings to make it easy for a serious information-seeker to find what he wants. Allied services provided by them: Message boards, chat rooms, forums, etc.

B. Banks:

1. *Net banking/phone banking:* This is an online banking facility available for savings account holders as well as current account holders. Some of the special Net banking services are: Demat accounts for sale/purchase of stocks and shares, Foreign Exchange services, Direct/Instant payment of bills on the account-holder's behalf, Financial Planning & advice, Electronic Funds Transfer, Loans to account-holders.
2. *Credit/Debit Cards*- Banks facilitate E-commerce by providing the most vital trade instrument, namely the Credit or Debit Card, without which E-commerce would be impossible.

BARRIERS TO E-COMMERCE IN INDIA

Some of the infrastructural barriers responsible for slow growth of eCommerce in India are as follows. Some of these even present new business opportunities.

1. *Payment Collection:* When get paid by net banking, one has to end up giving a significant share of revenue (4% or more) even with a business of thin margin. This effectively means one parting away with almost half of profits. Fraudulent charges, charge backs etc. all become merchant's responsibility and hence to be accounted for in the business model.
2. *Logistics:* Businesses have to deliver the product, safe and secure, in the hands of the right guy in right time frame. Regular post doesn't offer an acceptable service level; couriers have high charges and limited reach. Initially, one might had to take insurance for high value shipped articles increasing the cost.
3. *Vendor Management*: However advanced system may be, vendor will have to come down and deal in an inefficient system for inventory management. This will slow down drastically. Most of them won't carry any digital data for their products. No nice looking photographs, no digital data sheet, no mechanism to check for daily prices, availability to keep your site updated.
4. . *Taxation:* Octroi, entry tax, VAT and lots of state specific forms which accompany them. This can be confusing at times with lots of exceptions and special rules.
5. *Excessive pricing in e-commerce markets:* Over the short term, excessive pricing is unlikely to be a major issue for e-commerce companies. Few e-commerce operations are currently making any profits, let alone excessive profits. Over the longer term, however, excessive pricing may become a serious concern for those e-commerce companies that develop dominant positions in their relevant markets.
6. *Collusion: One* of the most widely held competition concerns relating to e-commerce is that it may facilitate such collusive behaviour. Much of the recent discussion of this issue has focussed on the development of B2B online marketplaces that are co-owned by a number of significant market participants. More generally, there are a number of characteristics of e-commerce that might be expected to facilitate collusion, even in the absence of joint ventures and online marketplaces.
7. *Cyber crime in E-Commerce:*
   Cyber crime is a key alarm that consumers have regarding e-commerce. No one wants to become a victim of cyber crime, which is a real hazard to e-commerce. Cyber crime is an e-crime. Cyber crime is a criminal actthat involves computers and networks. Cyber crime includes criminal acts such as computer viruses, phishing, and denial of service attacks that cause e-commerce websites to lose revenues. Understanding and defending against cyber crime is critical for companies involved in e-commerce. E-commerce companies lose billions of dollars in lost business, stolen assets, and damaged reputations as a result of cyber crime (Smith et al. 2010). Cash is stolen, literally with the push of a button. When an e-commerce website crashes, business activity stops. The usual outcome is that a company loses business to a competitor who has a working website. In addition to losing sales, companies that become victims of cyber crime also experience damaged reputation. Vulnerability to cyber crime may cause some customers to lose confidence in a company's ability to accurately process sales transactions and effectively protect confidential customer information.

TECHNIQUES TO IMPROVE E-COMMERCE BUSINESS IN INDIA

- The following are some pathways to enhance "Online Customers" in India:
- Goods should have value for the customer along with quality.
- Security is promised.
- Selling Brand articles.
- Establishing trust and winning confidence.
- Providing easy guidance.
- Clear information regarding delivery time.
- Articles ordered and the article delivered should not vary.
- Giving discount offer and other gift items.
- Limited personal information.
- Providing value added service at lower prices.
- Full information regarding the product is simple words.
- Innovative products.

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- Social shopping phenomenon.
- Providing price comparison.
- Transparent information regarding the product.
- Indian customers want to buy things that do not cost them much.

CONCLUSION

The bursting of the dotcom bubble has made several companies apprehend that doing business on the Internet is not as easy as it sounds. Undoubtedly, the power of the Internet to reach any part of the world holds terrific potential for enhancing international trade and boosting global economy. However, just as every coin has a flip side; it has been observed that doing business on the Internet also has risks and legal issues associated with it. The rapid pace of e-commerce development has generally left the legal system struggling to keep up and gasping for breath. In much the same way as companies doing ecommerce must invent new business procedures and rules, the legal system is trying to adapt existing laws to fit new settings where it is simply unclear how these laws will apply. In the midst of this legal turmoil, India is one of the few countries across the globe that has enacted an e-commerce legislation. However, much more is needed to effectively regulate the tangled web. Effective risk management strategies coupled with adequate legal documentation will go a long way in protecting e-commerce companies. Although the Internet is a goldmine, without adequate legal protection, it could become a landmine. Nevertheless, with the rapid expansion of internet, e-commerce 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 should be 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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