

# E-Commerce: Commercial Applications of its Models and Future in India

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## ABSTRACT

*The incredible success of internet business to customer segment in the present era is an indication of the new millennium. It is largely projected that the business to business segment is poised for a spectacular and stupendous growth. Present e-commerce business models attempt to explore information technology to eliminate the limitations, shortcoming of traditional business models and to minimize costs by improving the efficiency of business processes. The increasingly popular and its efficient use of effective E-Commerce (EC) models makes it possible for a growing number of organizations to gain access to the vast market place offered by the Web. Recent developments in the field of computing technology and communication systems, especially in the Internet, have created unlimited new business avenues for electronic commerce. The phenomenal emergence of e-commerce as a business model in short period of time is a result of ever growing popularity of Internet and constructive development of World Wide Web. It has established itself as a buzzword amongst the present generation of electronic commerce intellectuals and business professionals. Its efficient and effective services became center of gravity to entire business world in short period of time and thrown a challenging debate on the importance and applications of various e-commerce models and thus raises innovative question that, why these models are gaining popularity over the traditional brick-and-mortar business. However with a huge success still e-commerce do not have a constant definition and framework for business model for the internet based business. In this paper, the author's main objective is to discuss the effective and efficient framework of various business models of e-commerce and critically analyze and evaluate why these models are getting deep recognition and gaining popularity over the brick-and-mortar or traditional business. This paper offers a conceptual framework, which can be used to evaluate EC applications and begins with the critical explanation and positive overview of e-commerce, further defines e-commerce and describes how business entities and the owners of the EC assess its relevancy, performance and technology by explaining how sound evaluation of the e-commerce application will justify the business applications of e-commerce models for future. In the end of paper, concluding remarks are also given.*

*Key Words: E-Commerce; EC; Business Models; B2B; B2C; World Wide Web; ASAP; SABRE; EDI; ECEG;*

## Introduction

The rapid growth of trade and business has impacted human civilization very deeply and forced concept of innovation on society which at present widely base on modern technology, largely on "Information Technology" (IT). Visibility of Information Technology (IT) and its dominance over the other technology is clear and definite. It has changed the entire globe and embarrasses it under its importance. The major and important application area where Information Technology has largely impacted and changed the traditions of the society is the

approach through which the business is being conducted. Development in telecommunications and computer technologies in recent years has made computer networks an important integral part of the economic infrastructure. Modern businesses are adopting IT more deeply and forcing serious challenge to orthodox businesses; it is due to efficiency, effectiveness and capabilities of their operations and today more and more business activities are shifting and adopting the electronic media in full. Development and modernization of IT sector in last decade has resulted stupendous growth of electronic

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commerce (Generally known as E-Commerce) which is revolutionizing the business world and will continue endlessly. It has revolutionized communication and interaction approach of business in new style and has power to expand the businesses endlessly beyond the global boundaries by giving them an effective competitive edge in the international market arena. It provides multiple benefits to the consumers in form of availability of goods at lower cost, wider choice and saves time. A new area of trade involves goods crossing borders electronically that are the production, advertising, sale and distribution of products via telecommunications networks. Competitive businesses around the world are positively adopting and embracing this efficient technology with great passion as they realize the positive impacts of its potential which it possesses. India is among the countries where this innovative trend seems to be growing in a great manner. Companies in India are adopting the e-commerce with futuristic approach similarly as other parts of the world are adopting or adopted. The fascinating area of modern business has got revolutionized and India will be playing major role in this regard.

#### E-Commerce and its Relevant Conceptualizations

Electronic commerce is not a new phenomenon. From some time it has existed in different forms, like electronic order processing systems (e.g. ASAP by American hospital supply corporation) and airline reservation system (SABRE by American airline). In recent time it has taken the shape of "Inter Organizational System" (IOS) and "Electronic Data Interchange" (EDI). The term electronic commerce at present has a very different meaning and its modern applications approach significantly distinct from their earlier counterparts. Historically, EC typically was based on proprietary \ private networks and technologies, implemented by large organizations, were expensive, and had a narrow scope. By contrast, EC today is based on public networks (Internet) that are generally widely accessible are less expensive, are utilized by a variety of organizations for a variety of applications. But in the era of innovation and technology E Commerce is interpreted in different manner by different experts and organizations. In general EC can be termed as different things to different people, "*business that is promoted and conducted over the internet using any of its effective applications that rely on the Internet*". According to international engineering consortium "*Electronic commerce is an emerging model of*

*new selling and merchandising tools in which buyers are able to participate in all phases of a purchase decision, while stepping through those processes electronically rather than in a physical store or by phone (with a physical catalog)*. The World Trade Organization (WTO) defines E-Commerce in particular as, "*production, advertising, sale and distribution of products via electronic communication resources*". The Electronic Commerce Expert Group (ECEG) Report states, "*electronic commerce is a broad concept that covers any commercial transaction that is effected via electronic means and would include such means as Facsimile, Telex, EDI (Electronic Data Interchange), Internet and Telephone*" {Compbell, (1998)}. In 1997, European Information Technology Observatory defined Electronic Commerce as "*the carrying out of business activities that lead to an exchange of value across telecommunications networks*" {Zwart, (1998)}. The International Trade Administration defines the term "E-Commerce" as: (i) any activity that utilizes some forms of electronic communication resources in inventory, exchange, advertisement, distribution and payment of goods and services; (ii) all forms of commercial transactions based upon the transmission of digitalized data, including texts, sounds and visualized images; and (iii) the commercial transactions of services in an electronic format (Compbell, 1998). The Electronic commerce Interest group elaborate "*Electronic Commerce: the ability to buy, sell, and advertise goods and services to customers and consumers*". According to Vladimir Zwass(2008) "*Electronic commerce is the sharing of business information, maintaining business relationships, and conducting business transactions by digital means over telecommunications networks*". Further, OECD defined 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 digital data, including text, sound, and visual image*". In fact, Electronic commerce is simply, the commercial transactions of services in an electronic format (Transatlantic Business Dialogue Electronic Commerce White Paper, 1997).

With the above mentioned definitions and research, we hypothesize, E-Commerce as a dynamic set of innovative technologies, with effective applications, and positive business processes that equate enterprises consumer, and scattered communities through efficient electronic transactions as well as confidential electronic exchange of goods,

services and information. It is an innovative generic term that defines the electronic mode of promoting business with or without the help of Internet. The basic and strategic objectives of e-commerce applications are promoting relevant productivity, profitability, increasing customer satisfaction, lower costs, and responsiveness. It uses multiple groups of innovative technologies with distant customers or companies, to disseminate or collect past and present business information, or to conduct speedy and personalize business transactions. Thus, e-commerce is not mere computer but lot more, it is different things to different people, Internet, software etc. In fact, it is system which can be utilized according to the business requirement as how you run your business. Thus, the appropriate and true define concept of E-Commerce which can be positively echoed by the masses can be: *The adoption and use of innovative electronic communication resources like, (facsimile, electronic mails, telephone, telex, EDI, EFT, computer, Internet, IOS, ASAP, SABRE, World Wide Web etc.) particularly internet, its incredible functional technologists to control, rotate and engage the diversified operation in the exchange, including buying and selling of invisible products and services requiring transportation, either digitally or physically from or for distinct location in a minimum time especially for money.* Broadly e-commerce also refers to the authentic effects and its impact that the electronic transactions, exchange of personal and commercial information may have on the institutions and processes that support and ultimately govern the overall commercial activities. This includes advertising and commercial conferencing, order processing, commercial negotiation and contracts, organizational management, legal and regulatory framework and financial settlement arrangements and so on. But the measurement of all these activities cannot be held exactly in term of money. Therefore, all such activities which are having regulatory aspect cannot be covered under the concept of e-commerce strictly, because transactions ultimately should be in terms of money. This is the basic relevant condition for both traditional as well as e-commerce.

#### E-Commerce and its commercially Adopted Business Models

Developments in computing technology and communication systems, most notably the Internet, have created many new business opportunities for electronic commerce. New mechanisms for making money have developed. Development of innovative

technology and its adoption by the business world for the commercial means have different impacts according to its use and thus required positive tracks and effective EC business models (*which are popularly known as applications of electronic commerce*) to be developed and positively followed to avoid technological degradation and unforeseen destruction. Computer is not new thing most internet users are fully aware there have been links between computers since the 1960's. E-Commerce as a business model has emerged in the past few years, and can generally regarded as a broadening of the term electronic Data Interchange (EDI), it became necessity because of growing popularity of Internet and development of World Wide Web. It has become popular buzzword amongst all generation including academicians, business professionals, electronic commerce and like many buzzwords though its' meaning has become phenomenal with every individuals attaching their own dogmatic views, concept and different meanings to it according to their different requirements, {(Gordijn et al (2000); Weill and Vitale (2001); Elliot (2002) and Hawkins (2002)} refers to business models as descriptions or specifications. (Timmers, 1999), Afuah and Turban et al (2002), Tucci (2001) Rappa (2003), refer to business models as 'methods' by which firms do business. Krishnamurthy (2003) states that, *"a business model is a path to a company's profitability"*. Timmers (1999) and Dubosson-Torbay et.al. (2002), refers to business models as 'architectures'. Alesandro Fontanin (2005) it is also known as e-biz, is the exchange of products, services, or information between businesses rather than between businesses and consumers, some time also called as e-telling. Further, Rayport and Jaworski (2001) fueled the emerging confusion in the preface of their book with the statement *"while many believe that Internet Businesses don't have business models, we strongly disagree"*. These statements suggest and emphasize the researcher that firms have a liberty to adopt business models or may not. Adoption of models depend upon the assumptions matching their requirements , some people take the micro view, with a focus on transaction processing, while other take a macro view to include all activates associated with running a business (table 1). The cost and potential revenue constitutes a business model. Therefore, even the "free" sites have a business model. A public site offered by a library, school, or university has a business model. Free email service has a business model. Free home pages fit into a business model. Every site in the entire World Wide Web has a

business model. There are different businesses models underlying each website (Robert Samuelsen) Distinction in opinion is a result of development in this field which impacted and explored the use of this technology endlessly which was not in the beginning.

However it is apparent even from the diverse terminology used by the different authors that a business models, be it a method, an architecture, a path, a specification or a description, exists for every firms; it is just a matter of articulating (Lambert, 2003) it. In past EC typically was based on proprietary \private networks and technologies, implemented by large organizations with huge installation cost and consecutively with a narrow scope. But at present EC is based on public networks (Internet) that are much cheaper than before and widely accessible and are utilized by different organizations for a variety of applications. Kalakota and Whinston (1996) articulated e-commerce as being comprised of three relationship types: (i) those between enterprise and customer (B2C); (ii) those between and among customers (C2C) and (iii) those within enterprises (B2B). Thus e-commerce business models combine the traditional business infrastructure and electronic system to perform the business transactions and can be classified based on the type of business transactions. An e-commerce business models aims to use and leverage the unique qualities of Internet and World Wide Web (Timmers, 1998). Broadly, e-commerce business models can be described into four categories.

- ? *Business to Business (B2B)*
- ? *Business to Customer (B2C)*
- ? *Customer to Business (C2B)*
- ? *Customer to Customer (C2C)*

#### Business to Business Electronic Commerce

Commonly known as market link and transactions through internet. Business- to- business electronic commerce facilitates and equates inter-organizational commercial interaction and transaction. In this, business, government and other organizations depend on computer to computer communication which is fast in action, economical and quite dependable way to conduct business activities and transaction, such type of e-commerce activities requires two or more business entities positively interacting for the common cause with each other directly, or through intermediary. The intermediary in the B2B e-commerce may be the market makers of and direct service providers, who

assist in matching buyers and sellers and striking a deal (Bhaskar, 2003). The business application of B2B e-commerce can be utilized to facilitate almost all facets of interaction among organizations, such as purchasing and procurement, supplier management, inventory management and service and support. It can be supplier- centric, buyer-centric, or an intermediary centric (Chakrabarthi and Kardile, 2002). Today, B2B e-commerce is a major player and accounts large portion of overall e-commerce volume. Its comparative value per transaction is high than other models. At present it is widely accepted and most dominating model globally. In India B2B e-commerce is expanding with a great dignity and pace.

Recent studies show that B2B transactions will dominate and will be the primary growth engine over the next 3 to 5 years (Arora, 2000). The growth of e-commerce in India between 1997 and 2003 was highest. Cridit Lonnais forecasts that India will have 30 million Internet users by 2004 and that the potential Internet market will reach 47 million households in 2005, eMarketer accepts that there will be 71 million total Internet users in India by 2011. Nasscom and Boston Consulting Group projected that B2B transactions in 2005 in India will be of Rs 1,92,000 crores (Nasscom). By the end of 2006-07 the total market size of B2C and C2C E-Commerce industry was almost Rs. 8660 crores and it is expected to grow more or less to Rs. 11420 crores by the end of 2007-08 *Active Internet Users, I Cube 2006-07*. According to a McKinsey-Nasscom report by the year 2008, e-commerce transactions in India are expected to reach \$100 billion. According to Outlook Business magazine (May 20, 2008), the total B2B transactions in India in the year 2008 are likely to be US\$100 billion and B2B market places could account for \$15 to \$20 billion out of that. Indian middle class of 288 million people is equal to the entire U.S. consumer base. This makes India a real attractive and effective market for e-commerce, resulting growing number of users. With stock exchanges and banks coming online has proved that the time for true e-commerce in India has finally arrived. With the development of modern computer technology like secured socket layer (SSL) the use of e-commerce became more protective, this technology provide protective shield against payment fraud, and help to share information with suppliers and business partners. Major Indian portal sites have also shifted towards e-commerce instead of depending on advertising revenue. While many entities,

organizations, and communities in India started enjoying the advantage of the potential of e-commerce, some of the major players in India are: Maruti Udyog, Telco, Reliance, and wipro, Birla's and Bajaj Auto, Kinetic, Mahindra & Mahindra etc. According to ICRA in 'The Indian internet Business Report', the B2B e-commerce turnover represents over 90 per cent of the total e-commerce activity in the country. Though the stupendous success of B2B e-commerce at present can not be considered benchmark for the unpredictable future, it should be kept in view that the critical challenges remain to be overcome before e-commerce would become an asset for common people.

#### Business to Customer Electronic Commerce

The business-to-consumer (B2C) group is a much newer area and largely equates to electronic retailing over the Internet. This category has expanded greatly in the late 1990s with the growth of public access to the Internet Cheshire Henbury (2001). B2C is short for *business-to-consumer*, or the retailing part of e-commerce on the Internet. It is often contrasted to B2B or *business-to-business*. Alessandro Fontanin (2005). In present competitive global era business-to-consumer activity generally exists both online and offline, the acronym B2C has primarily been used to describe the online variety B2C businesses. Which in fact played a crucial role in the rapid development of the commercial Internet in the late 20th century? Large chunk of venture capital flowed to consumers in the form of free online services and discounted shopping, spurring adoption of the new medium. It's a systematic approach to immediate exchange of services, information and /or products from a business to a consumer, as opposed to between one business and another, or in other word, Business that sells products or provides services to end-user consumers. This model envisages a business or commercial organization contemplating commercial transactions and passing information directly with individual customers. Two different entities are involved to complete each transaction in B2C model, which represents an individual buying online e.g. tradekorea.com, MyShopping.com.au, amazon.com-Books and CDs, amul.com, products of Amul, Railway.com, and Axisbank.com etc. The B2C business model also referred to as a virtual store. Virtual store is the business model that is used specially for B2C e-commerce transactions. For example, once the customer places an order for any article, the virtual store's software by itself can instruct its vendor or business organization to

execute the order and operate on accommodating margins between buying and selling prices. It can be something like an online shopping mall. Due to its effective technology and use it is growing in positive manner. No doubt, the total value of the B2B transactions is much larger than that of the B2C transactions, because typically B2B transactions are of much greater value than B2C transactions, apart from this in India; B2C model of e-commerce has registered a rapid growth within short span of time. According to study by TSMG, the consulting division of TATA group, the organized retail market would grow up to 246,000 crore by 2015 (TSMG 2006). Table 3 reflects the effective growth of B2C model of e-commerce in India. According to a Survey conducted by 'Internet and Mobile Association of India' in March-April, 2005, the total volume of B2C transactions within India crossed 570 crore during 2004-05, increase to Rs. 1180 crore in 2005-06, 7080 crore approximately in 2006-07 (IAMAI 2007 b) and increase to 11420 crore in 2007-08.

Further, the Report estimates growth in excess of 300 per cent during the next couple of years and says Rs. 7080 crore worth of B2C transactions will be conducted within the country by the year 2006-07. In India, the B2C e-commerce opportunity has been utilized by three types of businesses-channel enhancement, the online Internet based stores, and small businesses trying to surpass entry barriers (Bhaskar, 2003). But present trend regarding it is not as pleasing as it is been projected. The term B2C, once popular, is now less frequently used, and the infrequent references are often followed by "...is dead." However, some analysts still predict that consumer businesses will thrive online, just not as big and fast as initially predicted. This is not news, of course, to the many niche businesses that are already enjoying success online.

#### Customer to Business Electronic Commerce

In present E- Business global world C2B have its own approach which play crucial role for business participant, largely base on consumer like and dislike. A consumer posts his project with a set budget online and within short period of time companies review the consumer's ments and bid on the project. The consumer reviews the bids accordingly and later selects the company that will complete the project. Generally customer-to-business is the third common accepted model for e-commerce world wide. It involves customer relationship driven business in which faster

feedback from the customer is the key for improvement of services and products offered by the company (Arora, 2000). In this type of electronic commerce customers have a liberty of choice among a wide variety of commodities and services, along with the bargaining opportunity to specify the range of prices they are willing to afford for a particular item, services or commodity. As a result, it reduces the loss of time in bargaining, increase the flexible movement and creates ease at the point of sale for both the merchant and customer in common. An example of C2B e-commerce could be the following. A faculty wants to fly from India to London to attend a seminar, but has only 50,000 Rs. in the Bank to pay for this round trip. He placed an advertisement on an Internet C2B site, seeking airlines that are willing to offer the round trip for Rs 50,000 or less. The marvelous beauty of the Internet is that it clubs together a large number of customers to create a marketplace that a number of airlines especially those who are operating with empty seat will be interested in.

#### Customer to Customer Electronic Commerce:

It is common platform with free entry and exit approach where buyers and sellers meet to satisfy their commercial transaction in complete freedom. This globally accepted model envisages that business transactions being carried out positively between several individual customers who are often consumers. For example, someone who wants to buy used vehical and someone who wants to sell a used vehical can get together at C2C web store for the deal and after the bargaining it get held. There is also possibility and freedom that this exchange can include third party involvement, as in the case of auction web site e-bay. In this category electronic tools and infrastructure play vital role and are employed to support effective transaction between individuals. Important distinction is that no businesses organizations are directly involved in this approach accept the concerned parties, e.g. automartindia.com- focusing on automobile, propertymartindia.com- focusing on real estate.

In reality, it is dogmatic view and panorama to say that e-commerce is confined to only these four adopted models. Many experts and business analyst of this field have different opinions regarding e-commerce, (Bhatia, 2000; Wood, 2001; Balasubramaniam & Mahajan, 2001; Schinederjans & Cao, 2002; Laudon & Laudon, 2002; and Lambert,

2002) suggested that there are number of different categories of e-commerce models and with every passing year number will get increased but effective models among them are at least nine. Among the nine e-commerce models they also included Government and its interaction with the different agents, as government is guardian to all entities and play parental role (i.e., Government, Businesses, and customers) as a part of effective e-commerce activities and thus explained nine models. These are: (I) B2B (II) B2C (III) C2B (IV) C2C (V) G2B (VI) B2G (VII) G2C (VIII) C2G and (IX) G2G. They have rightly argued and emphasizes that government is regulatory body and play parental role, interacts with the people (customers) and organizations in many circumstances on the regular intervals time to time. For example, in B2G organization it directs businesses to fulfill government obligations on reporting their behaviour, development and improvement on such issue of taxes, environmentalism and take legal action in frame of time. All of the G2C, G2B and G2G organizations can effectively share information's which are strictly required by the existing law and current legislation that might in due course take years to convey. The governmental organizations strictly allow for a much-needed expedience in the dissemination of information concerning the governance of people and assurance that existing related law will be promptly and definitely obeyed. But, in fact this form of interaction particularly does not comes under the term '*commercial transaction*' and directly it does not help government in generating revenue and if it is helpful in-direct manner then it can not be measured in the term of money, which is also the most basic and reliable condition for any transaction to conceder it '*commercial*'. However, when government play role of a buyer or a seller, it comes directly under the business models because it is generating revenue out of that transaction and can be measured in term of money, thus these transactions must be included under any four globally adopted models which are discussed above.

#### Size of B2C & C2C, E-Commerce in India

Growth of e-commerce depends upon its awareness. In India by the end of 2006-07 the total market size of B2C and C2C E-Commerce industry was almost Rs. 8660 crores and it is expected to grow more or less to Rs. 11420 crores by the end of 2007-08. Following is the break up for B2C and C2C E-Commerce Industry in India for the year 2006-07 and 2007-08 in table 4.

Travel industry is playing vital role in the growth of B2C E-Commerce industry; it is due to entry of number of low-cost airlines and increase in online bookings for railways and hotels. With growing number of mobile subscribers across the country, the digital downloads segment will hold the future and is expected to be the key contributors to the online nontrivial industry in future.

### Business Applications of E-Commerce Models

Business models at present are perhaps the most discussed and profoundly least understood aspect of the web world. There is so much talk about how the modern innovative web changes traditional business models in short period of time. But there is little clear-cut and effective evidence of what this exactly means. The ever growing confusing and exasperating debate on the importance, effectiveness and applications of various e-commerce models, raises a multiple and innovative question in the mind that, why these models by and by are gaining popularity over the brick-and-mortar business (traditional or regular forms of business, i.e., non e-commerce) transactions. In the most basic sense, a business model is the method of doing business by which a company can sustain itself -- that is, generate revenue. The business model spells-out how a company makes money by specifying where it is positioned in the value chain (Michael Rappa 2008). Many studies have been conducted through out the world to find out the effective business applications of innovative e-commerce models . Some models are very simple and easy to go through and some are complicated to handle. Internet commerce has given and will definitely give rise and zenith to new kinds of business approaches and models in future. That much is certain. But the web is also likely to reinvent tried-and-true models. In this regard auctions are a perfect example. The Web has popularized the auction model and broadened its applicability to a wide array of goods and services. Universally business models have been researched and defined and categorized in many different ways. Surprisingly, many of these proven studies (Haffman et al, 1995; Jones, 1995; Laudon & Laudon, 1999; Poon & Swatman, 1999; Brynjolfsson & Smith, 1999; Archer & Yuan, 2000; Majumdar, 2000; Scott et al, 2001; Riquelme, 2001; Yulku, 2001; Reibstein, 2002; Khatibi et al, 2003; Singla, 2004 etc.) produced almost the same results and confidently explained that the major e-commerce business drivers are: minimized cycle period and its distribution costs, (e.g., in the case of B2B e-commerce, B2B operations

help in eliminating middleman from the process and also help in eliminating unnecessary inventory build up for both buyers and sellers), speedy market and advanced customer access, ability to target effective customers, better timeliness of services and low costs of its operation, improved product control and its development. In addition to these, perfect targetability, effective flexibility and sound accessibility are found to be another conducive applications of e-commerce models that are not generally available thorough any other existing traditional media. Further, Ghosh (2001) depicted three basic principle drivers of e-commerce operations: (1) the opportunity for new revenue streams through new services, products or business methods; (2) the potential to reduce the operating costs and (3) increased profitability as an outcome of the first two drivers. McCaughey (1999) revealed that B2C Model of e-commerce offers the potential to enrich customers. Using pictures, video, and audio, company' personnel can literally show a product the customers and can explain how to use that or solve a problem, and explains things in much the same way that are done in the face-to-face interaction with customers. Bakos (2001) revealed that lower search costs in the digital markets make it easier for the buyers to find low costs sellers, and thus promote competition among the sellers. Murthy (2001), revealed that e-commerce is used in the service industries to lower costs, increase productivity, to deliver improved way of service, put more information in the hands of service representatives, personalize the service, collect data on customer needs, add value for the customers, differentiate the service and build relationships with customers. Building relationships through the web sites and Internet has become the ideal route for practising the one-to-one marketing, especially for the B2B customers {Cunningham, (2001)}. In the same context, Schneider & Perry (2001), stated that e-commerce technology enables relationship management to set prices, negotiate terms, product promotions, add product features, and customize its entire relationship with customers by obtaining detailed information about market behaviour, preferences, needs and buying patterns and different product uses. Schneider & Perry (2001) explained that, just as electronic commerce increase sales opportunities for seller, it increase purchase opportunities for buyer. Further, they explained that cost of handling sales enquiries, price quotes, and determining product availability can be reduced by using e-commerce in the sales support and

order taking process of business.

Thus, applications of e-commerce models has secured master role status and has a vital potential to produced opportunity for all in big way, which in general are not available in any other form of existing business. In fact, e-commerce has become wheel of fortune for business growth and survival in the liberalized, globalized and modern high-tech business world through its efficiency, effectiveness and low cost operational ability.

#### E-Commerce & Its Future in India

With the growing number of internet users in India it will be no wrong to say that e-commerce is the future of Indian consumer shopping. "The future is here. It's just not widely distributed yet"-(William Gibson). The low cost of the PC and the growing use of the Internet has shown the tremendous growth of E-commerce in India, in the recent years. According to the Indian E-commerce Report released by Internet and Mobile Association of India (IAMAI) and IMRB International, "The total value of online transactions in India was approx \$1.75 billion in the year 2006-2007 and expected to grow by 30% to touch approx \$2.15 billion by the year 2007-2008. According to a McKinsey-Nasscom report the e-commerce transactions in India are expected to reach \$100 billion by the 2008. According to study by TSMG, the consulting division of TATA group, the organized retail market would grow up to 246,000 crore by 2015 (TSMG 2006). In India the Internet economy have a bright future, will continue to grow robustly. Consumer will use Internet facility optimally and would buy more products frequently online. Economic activity through internet will be cheaper, new and established companies will be in advantage and reap profits online.

#### Safest Mode of Payment

As the Internet becomes a safer place to transact, the amount spent by the internet users online is bound to increase. Those apprehensive of divulging their credit card and bank details would be active online shoppers. With increasing awareness and lack of time masses will start using e-transaction in effective manner and are expected to buy high-end products like automobile, property, home durables, tourism and

other services online.

#### Customized content and offerings

Maturity will lead to Customization. Due to availability of wider choice users will opt to explore market online. The content would adopt the regional flavors to expand the future. More niches and exclusives will be formed to satisfy the demanding users, seeking for offerings made for them and content that meets their requirements.

#### Increasing future shoppers from Non-Metros

Generally shoppers and users are from metros and non-metros but their percentage vary.

With the growing awareness and efficient service of e-commerce it is expected that by the end of year 2007-08, the contribution from the non-metros class will increase. This change would be the result of higher and effective penetration of Internet in the small towns and remote areas and inefficient, costly presence of physical distribution channels of the established sellers to these markets. These factors and growing awareness among the remote mass will motivate users who can afford, and will flow them to become active online buyers which is handsome advantage to both end.

#### Growing User Base

Education and knowledge set the trend. With this view we analyze and interoperate the future scenario. With growing awareness and knowledge of internet and e-commerce we forecast the future trend. With the current rate of growth in the Internet users transacting online, it is obvious that the user base for e-commerce will touch new height and will keep breaking its own set records. Ambitious present generations are major user of internet and related technologies. The shrewd nature of this generation base on concept use now and pay later will be the major player for the future growth of e-commerce market in India. Whether picking new trends clothes or new share stocks, searching a job or a bride, the web way of doing things will gain acceptance and dominance.

#### M-Commerce

At Present PC and browser-based interaction and e-commerce are just like two sides of one coin and



are regarded as synonymous to each other. Most transactions are held through this approach, but future is unpredictable any new approach can outwit the existing one. However, future is in the hand of mobile phones. GPRS-enabled mobile phones will rule the future online transactions. At present, mobile phone online download services are limited to economical and low value services like music downloads, ring tone downloads and picture message downloads. However, the purchase of high and exclusive products is expected to rise with the familiarity of mobile users with buying online. Further, banking and finance, travel and tours, retail and entertainment are likely to speed the growth of m-Commerce in the country. In the recent past, e-commerce and its growing competitor m-commerce have proved their worth of being the most important drivers of the Internet. To make consumers comfortable, satisfied and hassle free in e-spending, e-commerce and m-commerce are continuously evolving and upgrading their efforts. However, security of transaction and its simplicity will decide future growth and success of e-commerce and m-commerce.

### Concluding Remarks

The field of E-commerce is evolving; it is result of change in demand, current business approach, hypermedia, Web, networking, and communication technology. Several E-Commerce applications will be introduced and implemented. Management will have to evaluate them to justify investment economically. In several instances, an audit and effective research will be undertaken to determine how effective the EC application was. The professional and academic finding from the above discussion, that e-commerce is much more than collection of information and communication technology applications related to minute and miscellaneous business processes. In fact, it is a scientific approach of supporting and enabling all kind of business and commercial transaction in which parties replace physical exchange or direct physical contacts by opting to interact electronically. In the present international business environment it is modern approach and scientific concept of doing business electronically. There are number of different types of e-commerce and many distinct approaches to characterize these types similarly like traditional forms of commerce. Modern business models opt to explore internet and its effective technologies to eliminate the

limitations of obsolete and traditional business models and to minimize the costs by developing efficiency of business processes. Four major and most popular types of e-commerce are listed in Table 2. In the terms of total volume among all, B2B is the oldest and most popular and widely recognized model of e-commerce. B2C is the second most popular and widely recognized after B2B in terms of total volume but in terms of number of transactions it is number one and ahead to B2B forms of e-commerce business models. In general due to their effectiveness and efficiency the B2B and B2C form of e-commerce distinctly covers 95 per cent of total global volume and remaining 5 percent are covered by C2B and C2C forms of e-commerce. E-commerce models generally constitute positive advantages to both consumers and business organizations. With their support consumers are relaxed and can search the global market anytime and anywhere in short span of time. By using search engines, consumers can easily compare products efficiency, effectiveness and prices in the present global market. This allows the consumers to evaluate and compare the best possible product for their requirement efficiently and they can execute the order with ease and receive the products instantly if the product is digitized. Its efficiency, effectiveness and time saving advantage motivated firms to adopt e-commerce models because it can help them to increase profits. It will be no wrong to say that e-commerce is nothing but everything; it is a bundle of advantage and all the advantages of e-commerce models can be reflected in one statement: e-commerce is an angle of low cost, increase sales and profits. These advantages perfumed positive impact in present global world and are the principle drivers of adoption of e-commerce models in the modern business entities. A basic requirement for the success of e-commerce models is its efficiency, effectiveness, cost and security mechanism against theft or other odds. The security assessment of business models of e-commerce in general are quite complex, however today, vendors of e-commerce systems have relied solely on secure transaction protocols such as SSL the simple customer-vendor model are often augmented by a large number of roles and interactions.

### Notes :

1. Electronic Commerce popularly called 'E-Commerce' is often used interchangeably with the IBM's coined term 'E-Business'. In reality, scope of e-business is much more than

- e-commerce. E-Business include not only e-commerce, but also used Internet based communications and Internet enabled business processes (for example, Enterprise Resource Planning, and Electronic Customer Relationship Management etc.), which might not be strictly commerce in the sense of buying and selling. In fact, e-business is a part of how you run your business and thus, e-commerce is just a subset of e-business.
2. E-Commerce is a broader concepts that covers all types of business and commercial transactions which are affected by electronic means whatsoever which, *inter alia*, includes Telephone, Telex, Facsimile, EDI, EFT, electronic mail, computers and Internet etc. But specifically it is with Internet because Internet is the most potent way or technique to perform business or commercial activities electronically. It is therefore; E-Commerce and Internet Commerce terms are used interchangeably.
  3. E-Commerce over the Internet is much more versatile than other electronic media, as it allows interactive communication with voice, data, image transmissions and much more.
  4. Generally, products are tangible; but sometimes it may be combination of both tangible and intangible. For example, data products are often combination of tangible and intangible, for instance CD-Rom which contains database.
  5. A common misconception is that the Internet and World Wide Web are the same thing. However, from the technical perspective, Internet and World Wide Web are two separate activities. The Internet is a collection of wires, protocols and hardware that allows to electronic transmission of data over TCP/IP. Any data can be transferred over this collection of hardware and software components. Example includes e-mail, video, voice and webpage. On the other hand, World Wide Web exists on the Internet. The web is composed of hypertext pages views by a browser, which are served from a web server over TCP/IP, web pages always begin with http:// or https://, signifying their contents, while internet is the infrastructure, the web can be thought of as an application for the Internet.
  6. It is no wonder that people of commerce quickly saw opportunities in using Internet to conduct business. The universality that the Internet offered had to be and was capacitated by businesses into universally accepted standards for storing, retrieving, formatting, and displaying information in a networked environment. This capacitated environment of the Internet is called World WideWeb (WWW) and premises businesses to get online and conduct a variety of business activities. Tim Berners Lee of European Laboratory for Particle Physics was credited in 1990s with developing several protocols used in the initial development of WWW (Deithal, et al (2001), *E-Business and E-Commerce: How to Program*, Upper Saddle River, New Jersey: Prentice Hall.
  7. E-Commerce business models can be considered as a method of doing business, a method of generating revenues and profits and to sustain and prosper as a commercial enterprise.
  8. B2B e-commerce has, until recently, been undertaken solely via proprietary network, and usually referred to as EDI. Open networks and in particular Internet, are increasingly becoming the communication medium of choice for businesses, and the term EDI is likely to fall gradually into disuse.
  9. One of the major beneficiaries of theses transformation is cross-border inter-corporate trade, which constitutes a lion's share of international trade for many companies in low-cost developing countries, like China and India as well as allows the buyers in developed countries to obtain their supplies from the cheaper sources.
  10. The B2C model for e-commerce transaction is ideally suited for the following types of business:
    1. goods can be easily transformed into digital format, such as books, music clips and videos and software packages.
    2. items that follow standard specifications like printer ribbons, ink, cartridges etc.
    3. relatively cheap items where saving outweigh risks.
    4. highly rated branded items or items with return security: such as Dell and Compaq computers, electronic gadgets from Sony etc.
    5. items sold in packets that can't be opened even in physical stores, e.g. Kodak film rolls.
    6. items that can be experienced online, such as music, videos etc.
  11. But, much of the transactions in this category correspond to small gift items, craft merchandise, and similar item that are normally sold through 'flea' markets or bazaars, where individual sell their goods to other individuals at the market determined price.
  12. This is especially true in the context of developing countries like India, where government acts as a regulator of many business activities. For example, India is only country where Venture Capital is regulated by the government. However, ideally government should not be in the business.
  13. The UNCITRAL Model Law on Electronic Commerce uses the term "commercial" and guidance on the meaning of that term. The term "commercial" should be given a wide interpretation so as to cover matter arising from relationships of a commercial nature, whether contractual or not. Relationships of commercial nature includes, but are not limited to, the following transactions: any trade transaction for the supply or exchange of goods or services; distribution agreement; commercial representation or agency; factoring; leasing; construction of works; consulting; engineering; licensing; investment; financing; insurance; lending; exploitation agreement or concession; joint venture and other forms of industrial or business cooperation; carriages of goods or passengers by air, sea, rail and road.
  14. Commercial transaction involves the exchange of value (e.g., money) across organizational or individual boundaries in the return for products or services.

15. For the purpose of present study, the researcher subsumes G2B; B2G; C2G and G2C within the B2B and B2C e-commerce, viewing the government as simply a form of business when it acts as a producer of goods/services and G2B in the form of government policies and programmes towards boosting e-commerce in a direct way or in an indirect way (e.g. infrastructure).
16. However, business models of e-commerce are also known as the application of e-commerce because these are the methods of conducting different type of transactions. In short, we have to apply these models to conduct commerce. Here, business applications of e-commerce mean the main drivers of e-commerce.
17. The online ability to keep track of products or services activities allows schedulers to be more accurate and timely in scheduling, and rescheduling product activity.

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**Table -1: Distinction Between Traditional and Modern Approach**

Characteristics	Traditional EC	Modern EC
Technology	Proprietary \ Complex	Public \ Simple
Focus	Inter organizational system	Inter organizational and consumer oriented
Application	Few, Narrow scope	Numerous, wide ranging
Users	Large organization	All organizations and consumers
Costs	Relatively high	Relatively low

**Table -2: Important Categories of E-Commerce Business Models**

	Business	Customer
Business	B2B	B2C
Customer	C2B	C2C

**Table -3: Effective Growth of B2C Model of E-Commerce in India**

Year	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08*
<b>B2C (Rs. Crore)</b>	<b>Rs.130</b>	<b>Rs.255</b>	<b>Rs. 570</b>	<b>Rs.1180</b>	<b>7080 crore (IAMA I 2007 b)</b>	<b>11420 crore (I Cube 2006-07)</b>
<b>Growth (in %)</b>		<b>96%</b>	<b>124%</b>	<b>107%</b>	<b>300%</b>	<b>300% Plus</b>
<b>Average No. of Transactions per month</b>		<b>207,000</b>	<b>4,40,000</b>	<b>7,95,000</b>		
<b>Growth (in %)</b>			<b>112</b>	<b>80</b>		
<b>Average Transaction Value</b>			<b>Rs 1080</b>	<b>Rs 1100</b>		

Source: IOAI, "The Power Shopper: E-Commerce Sector Report, 2005", Active Internet Users, I Cube 2006-07, \*=projection, IAMA I 2007 b

**Table -4: B2C\C2C- E-commerce Market (Rs. Crores)**

Market size for the year	2006-07 in crore	2007-08*
Online Travel Industry	5500	7000
Online Non Travel Industry	1580	2210
eTelling	850	1105
Online Classified	540	820
Pain content Subscription	20	30
Digital Downloads	170	255
Total B2C \ C2C- E-commerce Market	8660 Crore	11420 Crore

Source: Active Internet Users, I Cube 2006-2007, \*=projection