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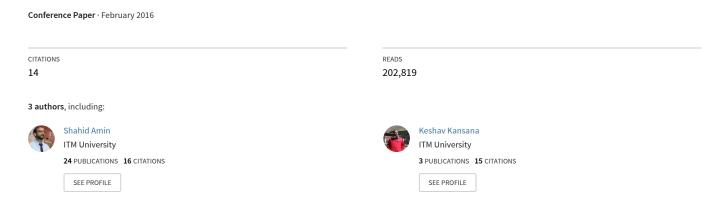ITM University
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A Review Paper on E-Commerce

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Abstract

E-commerce is a boom in the modern business. E-commerce means electronic commerce. E-commerce (Electronic commerce) involves buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, predominantly the Internet.

E-commerce (Electronic commerce) is a paradigm shift influencing both marketers and the customers. Rather e-commerce is more than just another way to boost the existing business practices. It is leading a complete change in traditional way of doing business. This significant change in business model is witnessing a tremendous growth around the globe and India is not an exception. A massive internet penetration has added to growth of E-commerce and more particularly start-ups have been increasingly using this option as a differentiating business model.

Moreover E-Commerce has significant influences on the environment. Although the model is highly used in current business scenario but the option has not been explored at its fullest.

The current research has been undertaken to describe the scenario of E-Commerce, analyze the trends of E-Commerce. The study further examines the key variables imperative for the success of E-commerce business models.

Objective:

The objectives of present study are:

1. To understand the present status and trends of E-Commerce; and

2. To reveal the key variables influencing the increased usage of E-Commerce.

Key Words:

E-Commerce, Internet, Self-service, Technology, Internet banking.

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A Review Paper on E-Commerce

What is E-Commerce?

E-commerce means electronic commerce. It means dealing in goods and services through the electronic media and internet. E-commerce involves carrying on a business with the help of the internet and by using the information technology like Electronic Data Interchange (EDI). E-Commerce relates to a website of the vendor on the Internet, who trades products or services directly to the customer from the portal. The portal uses a digital shopping cart or digital shopping basket system and allows payment through credit card, debit card or EFT (Electronic fund transfer) payments.

A more complete definition is: E-commerce is the use of electronic communications and digital information processing technology in business transactions to create, transform, and redefine relationships for value creation between or among organizations, and between organizations and individuals (C. Nisha and G. Sangeeta, 2012).

The main types of electronic commerce are: business-to-business (B2B); business to- consumer (B2C); business-to-government (B2G); consumer-to-consumer (C2C); and mobile commerce (m-commerce).

E-Commerce Facilitators:

(1) Internet:

A massive internet penetration has added to growth of E-commerce. Internet and smart phones are becoming an integral part of every life. Internet is no more a source of information but has become an important tool for shopping, learning, communicating and even getting service from plumbers, carpenters, doctors etc. Supply chain is also becoming leaner and smarter as digital platforms are helping to better connect with the customers which significantly reduces the waste and supporting to green businesses.

Over the past 15 years the ICT revolution has driven global development in an unprecedented way. With an immense progress in technology, internet and its services have led to creation of new markets (D'silva et al., 2010).

The internet user population was small during the 1980s, experiencing a slow but steady growth until 1994 due to an increasing number of text-based users (eg, those using email and file transfer functions).Then, with the introduction of the World Wide Web and subsequent multimedia content expansion, the number of net users exploded. Infact, the internet has grown much more quickly than any other medium in history (Strauss et al., 2007).

The International Telecommunication Union (ITU), a United Nations body, recently predicted in 2015 that 3.2 billion people will be online. The population in May 2015 stood at 7.2 billion. In the year 2000 there were just 400 million internet users worldwide.

Internet in India took more than a decade to move from 10 million to 100 million and 3 years from 100 to 200 million, it took only a year to move from 300 to 400 million users. Clearly, Internet is mainstream in India today. This number is expected to further surge to 462 million by June this year as more people come online, especially through their mobile devices. The total Internet user base stood at over 300 million in December 2014, which grew to 375 million by October last year. Currently, India has the second largest Internet user base in the world recently overtaking the US (now the third largest user base). China currently leads with more than 600 million Internet users. Mobile Internet user base in 2015 in urban India has grown 65 per cent over 2014 to reach 197 million, while the rural user base surged 99 per cent to 80 million by October 2015. This is expected to grow to 219 million (urban) and 87 million (rural), respectively (IAMAI and IMRB, 2015).

(2) Payment Gateways:

A payment gateway is an e-commerce application service provider service that authorizes credit card payments for e-businesses, online retailers, bricks and clicks, or traditional brick and mortar. The life blood of online business is the payment routes which comprises credit card, debit card, online banking payments, electronic funds transfer. The world is transforming from cash to digital money and thus there is a need of payment gateways for sustainable future ecommerce.

(3) Analytics:

Analytics is the scientific process of transforming data into insight for making better decisions. Analytics helps businesses to gather, organize, analyze, and report on everything their customers do. The massive increase in the volume of data has forced the businesses to focus on analytics to understand the behavior of the customer. E-tailor need to have real time access to information to

measure return on online investments and optimize the channel mix. There are basic analytics capabilities available with the ecommerce players like basket size analysis, average order value, conversion ratio but we need deeper analytics solution for actionable insights of the consumer.

(4) Social Media

Businesses are increasingly making use of social media in order to market their goods and services. Social media refers to websites and computer programs that allow people to communicate and share information on the internet using a computer or mobile phone.

Social media has played a great role in brand building and informing various offers to the customers. It also helps in getting the feedback about the product or service. It provides a platform for brand building, advertisements, developing a community of trusted users, spreading word of mouth etc.

(5) Autonomous Vehicles

An autonomous vehicle is a motor vehicle that uses artificial intelligence, sensors and global positioning system, coordinates to drive itself without the active intervention of a human operator. The age of the autonomous car is coming, and it's coming fast. Purchasers of autonomous vehicles will have more time to view emails, search the web, buy new products, and see advertisements all around them. With autonomous cars, vast digital marketing experience will present itself. These purchases and search patterns can be tracked to help companies tailor their marketing campaign to capture this new segment.

The scope of big data just got much bigger, but will become so tailored and predictive in the years to come that we may never have to manually adjust anything again.

(6) 3D Printing

A 3D printer is a device that's capable of making a three-dimensional object from a digital design. It uses something called "additive manufacturing" -- a layered process that bears some similarity to the way an ink-jet printer sequentially layers its colors on a flat piece of paper.

It is expected that 3D printing, might one day blow away manufacturing of the kind we've been used to since the Industrial Revolution shook up agrarian life in the early 19th century. 3D printing is creating a market in designs that are meant to be printed by the buyer -- or a third-party manufacturer unrelated to the designer. The end product isn't sold -- it's the design that's sold, along with a license for it to be printed. Buried in corners of the Internet are marketplaces where budding designers are selling their plans for printing at home or in the workplace. Customers can

use their own printers or they can buy the design and have it printed on the marketplace's printer and then delivered.

E-Commerce Trends -A New Business Revolution in India:

E-commerce is a boom in the modern business. It is a paradigm shift influencing both marketers and the customers. Rather e-commerce is more than just another way to boost the existing business practices. It is leading a complete change in traditional way of doing business. This significant change in business model is witnessing a tremendous growth around the globe and India is not an exception. Moreover, E-Commerce has every potential to curb the pollution and thus producing significant influences on the environment.

Buying goods and services via E-Commerce allows consumers the freedom to choose when and where to shop and the opportunity to research the product, the seller, and any other available options. Shopping has been revolutionized through the availability of online information. Just about anything that can be bought in a merchandise store can be bought via E-commerce, even perishables like groceries. And consumers have embraced these possibilities around the globe.

The effects of e-commerce are already appearing in all areas of business, from customer service to new product design. It facilitates new types of information based business processes for reaching and interacting with customers like online advertising and marketing, online order taking and online customer service. In now days E-commerce uses the WWW at least some point in transaction lifecycle. It can also reduce costs in managing orders and interacting with a wide range of suppliers and trading partners, areas that typically add significant overheads to the cost of products and services. For developing countries like India, e-commerce offers considerable opportunity. In India it is still in nascent stage, but even the most-pessimistic projections indicate a boom. There has been a rise in the number of companies' taking up e-commerce in the recent past. Major Indian portal sites have also shifted towards e-commerce instead of depending on advertising revenue. Many sites are now selling a diverse range of products and services from flowers, greeting cards, and movie tickets to groceries, electronic gadgets, and computers, etc. (Mitra Abhijit, 2013). E-commerce has reached to an extent that the cow dung patties are also selling like hot cakes online in India.

India's e-commerce market is likely to touch $38 billion mark in 2016, a massive jump over the $23 billion revenues clocked by the industry in 2015, according to an Assocham study. Increasing internet and mobile penetration, growing acceptability of online payments and favourable

demographics have provided the unique opportunity to companies to connect with their customers. On the other hand, mobile commerce (m-commerce) is growing rapidly as a stable and secure supplement to the e-commerce industry. Shopping online through smartphones is proving to be a game changer. It is believed that m-commerce could contribute up to 70 per cent of their total revenues.

Underlying Factors in E-Commerce :

ASSOCHAM Study (2015) found the highest growth rate in the apparel segment, almost 69.5 per cent over 2014, followed by electronic items, up 62 per cent, baby care products, up 53 per cent, beauty and personal care products at 52 per cent and home furnishings at 49 per cent. Rapid growth of digital commerce in India is mainly due to increased use of smartphones. Mobiles and mobile accessories have taken up the maximum share of the digital commerce market in India, noted the study. Moreover, almost 45 per cent online shoppers reportedly preferred cash on delivery over credit cards (16 per cent) and debit cards (21 per cent). Only 10 per cent opted for internet banking and a scanty 7 per cent preferred cash cards, mobile wallets, and other such modes of payment. The 18-25 years of age group has been the fastest growing age segment online with user growth being contributed by both male and female segments. The survey highlights that 38 per cent of regular shoppers are in 18-25 age group, 52 per cent in 26-35, 8 per cent in 36-45 and 2 per cent in the age group of 45-60. Nearly 65 per cent online shoppers are male and 35 per cent female.

Mitra Abhijit (2013) suggests E-Commerce has unleashed yet another revolution, which is changing the way businesses buy and sell products and services. New methodologies have evolved. The role of geographic distances in forming business relationships is reduced. E-Commerce is the future of shopping. With the deployment of 3G and 4G wireless communication technologies, the internet economy will continue to grow robustly. In the next 3 to 5 years, India will have 30 to 70 million internet users which will equal, if not surpass, many of the developed countries. Internet economy will then become more meaningful in India. 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 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.

Chanana Nisha and Goele Sangeeta (2012) propose that the future of E-Commerce is difficult to predict. There are various segments that would grow in the future like: Travel and Tourism, electronic appliances, hardware products and apparel. There are also some essential factors which will significantly contribute to the boom of the E-Commerce industry in India i.e. replacement guarantee, M-Commerce services, location based services, multiple payment option, right content, shipment option, legal requirement of generating invoices for online transactions, quick Service, T & C should be clear & realistic, the product quality should be same as shown on the portal, dedicated 24/7 customer care centre should be there.

Awais Muhammad and Samin Tanzila (2012) indicate that use of internet has made the world a global village. The use of Internet has reduced the distances and brought the people together. A nation's back bone is commerce and it will be strengthened if backed by electronic tools in which e-commerce plays a vital role. The important feature in ecommerce is privacy which not only increases competitive advantage but confidence level also. E-commerce brings sellers and potential buyers at the distance of one click and it saves time as it is cost effective, as E-commerce is becoming key to success

Internet banking, one among the innovative and significant internet based services has experienced explosive growth and led to transformation of traditional banking practice. Online banking or net banking in today's dynamic age of banking has made things much easier for the people and saves a lot of time for its customers. The traditional way of standing in the queues and filling up all the forms are well solved and now it is no hassle for making any transaction with the banks by virtue of internet banking. The financial institutions which operated traditionally are now able to lower their operational costs and increase the consumer retention by virtue of technology. Internet banking as a latest and potential means for banking now holds a similar importance as that of ATM's, phone banking and traditional bank branches. The works by ABA, 2004; Fox, 2005 suggest that an internet banking strategy may be effective, with reports of more profitable, loyal and committed consumers compared with traditional banking consumers (D'silva et al., 2010).

Dutta and Dutta, (2009) found tangibles have the highest impact on overall customer satisfaction. The largest discrepancy between the customer expectations and perceptions is in terms of empathy which includes Bank locations and ATM machines in convenient places and tele-banking and internet banking facility. The study regards this a major source of concern for Indian banking industry as a huge service quality gap exists for all the banks in this category.

Kumar and Rajesh (2009) suggest that the facilities of the banks should be made more convenient for customer comforts. The ATM services should be extended with few more cabins.

The work also concludes that with sincere efforts and positive attitude, the needs of many customers can be satisfied when banks aim at 'customer delight'.

Blasio (2008), in his study does not find the support for the argument that the Internet reduces the role of distance. Internet usage is much more frequent among urban consumers than among their non-urban counterparts. The use of e-commerce is basically unaffected by the size of the city where the household lives. Geographically remote consumers are discouraged from purchasing goods by the fact that they cannot inspect them beforehand. Leisure activities and cultural items (i.e., books, CDs, and tickets for museums and theaters) are the only goods and services for which e-commerce is used more in isolated areas. Finally, e-banking bears no relationship to city size. In choosing a bank, non-urban customers give more importance to personal acquaintance than do urban clients, partly because bank account holders in remote areas are more likely to have taken out a loan from their bank.

Ozok et al (2007) identified ten items contributing to overall consistency in e-commerce customer relationship management. These items are consistency of transaction steps, consistency of Web site design, consistency of navigation, consistency of promotions, consistency of in-stock indications, consistency of product variety, consistency of fraud protection, consistency of product guarantees, consistency of overall site fairness, and consistency of return policies. This list of consistency items includes three usability items. It can be concluded that sites with good usability have a better chance of having successful CRM implementation in their business. Consistency of promotions, in-stock indications, product variety, fraud protection, guarantees, fairness, and return policies indicate mainly that customers in fact demand a high level of security-related information as well as trustworthiness and high ethics on the shopping site to become regular customers of e-vendors. Customers demand equal and consistent treatment concerning products and product-related services. The findings indicate that the level of security and guarantees presented to customers has a significant positive effect on customer retention and customer acquisition.

Singh and Lalwani (2007) in their work on internet banking suggest that internet banking has facilitated the banking relationships with the customers . It is now widely accepted in the country because of the fact that it is the cheapest source of providing banking services. As more and more banks will succeed in online banking, a day will come when it will reach a common place as ATM's. It has not only increased the banking transactions but also has reduced the time and cost factor. It has brought revolution in the banking industry.

Rust and Chung, (2006) suggests to know not just what customers do in any particular e-commerce contact but also what they do (and how they perceive and feel) across multiple contacts. The work also suggests to investigate the kinds of online services that promote growth of the customer relationship, and the most effective ways to combine the online relationship with the offline relationship, with the idea that the full relationship with the customer is not complete without considering both online and offline, as well as how they interact.

Hsieh (2005) examined what a firm should consider in order to encourage customers to at least try, and eventually adopt, the SST offered by a firm into the customer's regular routine. The result suggests that before a firm makes the leap into adding SST to their product/service line, they need to invest the time in seeing if they are ready themselves. Customers want what they have always wanted. They want reliable, affordable, quality service that is convenient and easy to acquire. If firm can't provide an SST that is at least as reliable, if not more so, than no-technology customer service, then firms isn't prepared to properly implement SST.

Devashish Pujari, (2004) explored the issues relating to service recovery in case of SST failure and effects of favorable/ unfavorable SST encounters on business relationships. The key findings of the study show that key sources of satisfaction are different for B2B clients than for end consumers, as evidenced in previous studies by Meuter et al. (2000) and Srijumpa et al. (2002). The study shows that in the event of SST failures, service recovery is very critical to clients. In a situation where service personnel are not involved in the service encounter, clients needs a quick and complete recovery after reporting the failure. Clients may also expect that SST delivery should have the capability to transmit the failure to their service provider on a real time basis. The results of this study also echo that satisfying SST incidents will lead to future behaviors such as word of mouth and repurchase intentions.

Snellman and Vihtkari, (2003) in their study reveal that, in general, failures are very common in both, interpersonal service encounters and technology-based service encounters. In interpersonal service encounters, unfriendly or impolite service and time-related aspects are the most common causes for dissatisfaction. On the other hand, dissatisfaction in technology-based encounters is often related to failures in technology, service design or in the service process.

Chou and Chou (2000) reveal that with the astonishing growth of electronic commerce, banks around the world now see a huge potential market for internet banking. In order to provide efficient services to its customers, a bank needs to design and implement a robust internet system. Several technological issues must be considered before adapting to a specific internet environment,

including network technologies, platform and standards, scalability, security and intelligent software agents. In order to meet the needs of global business communities, the banking industry needs to carefully select suitable networking technologies to serve the internet market. As banks select electronic commerce as one of their mission-critical business processes, managing risk and liability become important. Internet security is always a major concern in a digital economy; it involves the application of both technical and nontechnical practices. The non-technical ways of pursuing security on the internet include formulating a corporate security policy and educating and training users about that policy. On the other hand, major technical measures consist of access controls, authentication, encryption, firewalls, audit, antivirus tools, and self-assessment tools. The bank needs to select suitable security tools and policy to protect itself and its customers. Specific security policy can be posted on the website for user's reference.

Conclusions:

A developing country may well attempt to be modernized if it introduces e-commerce effectively and efficiently. It will improve its output and lead to its competitive advantage. Information Technology (IT) has uplifted ecommerce worldwide. Now it's at ease to enter to a new market and marketers' can easily evaluate their product and company's performance.

A growing number of firms in various industries, such as banking, education, commerce, and tourism, etc. have improved their services by both incorporating technologies into their service delivery process. Integration of technology in services is becoming very common; however, very little academic research has been conducted to examine its influence. The issues related to E-commerce are also on the rise which is posing serious threat to its tall future and hence demands right strategies on part of marketers.

The research works on E-commerce propose good number of variables to be taken care of if marketers need to be successful in this newly business model. The factors which will significantly contribute to the success of the E-Commerce industry and focused upon should be consistency of transaction steps, consistency of Web site design, replacement guarantee, M-Commerce services, consistency of promotions, consistency of in-stock indications, consistency of product variety, location based services, multiple payment option, right content, shipment option, legal requirement of generating invoices for online transactions, quick Service, T & C should be clear & realistic, the product quality should be same as shown on the portal. The

important feature in ecommerce is privacy which not only increases competitive advantage but confidence level of the customers. The researches also suggest 18-35 as the good customer age to be promising and to be targeted irrespective of gender for better results.

Social media may be a boon for brands and marketers looking to reach target buyers without wasting big bucks on traditional media, but luxury brands have recently found it challenging as unauthorised sellers are luring buyers, most of who fall in to the temptation of getting discounts of up to 50-70% have cropped up using platforms like Facebook, Instagram, Twitter and WatsApp. Firms must closely monitor such accounts and spend money on legal checks controls.

In a marketplace model, the ecommerce firm provides just the technology platform while sellers on the site own the inventory. Most E-commerce companies have call centres to connect with customers, the pressing need is the initiative to set up call centres to deal exclusively with merchants as increasing the number of sellers in a marketplace becomes the next battlefront in the E-Commerce. The need is 24/7 call centres should be dedicated.

The e-commerce industry participants must also understand and address the cultural issues that are unique to the target country and relate to off-site transactional process, the large scale diffusion and success of such endeavors will be greatly impeded. E-Commerce firms must also find most effective ways to combine the online relationship with the offline relationship, with the idea that the full relationship with the customer is not complete without considering both online and offline, as well as how they interact.

The governments should offer a level field to its E-commerce firms to allow the country's significant development. The thrust on E-Commerce should be to offer a legal framework so that while domestic and international trade are allowed to expand their horizons, basic rights such as consumer protection, privacy, intellectual property, prevention of fraud, etc are highly protected. The banks also need to select suitable security tools and policy to protect itself and its customers.

E-Commerce is a boon for any country- if given right impetus and good environmental framework to prosper can significantly lead to country's progress and development.

Implications for Researchers:

Our study, being conceptual in nature, raises a number of opportunities for future research, both in terms of theory development and concept validation. More empirical research will in fact be necessary to refine and further elaborate findings in the area of ecommerce.

The study is an eye opener for the researchers who have ample interest in E-commerce. This review paper will offer them the leads towards the better understanding of the key variables of the recent E-commerce platform that is revolutionizing the business.

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