



Impact of E-Commerce in India

Prof. Bhagyashree N. Deshpande
Tilak Maharashtra Vidyapeeth, Pune

Key Words :

- E-commerce
- E-Merchandise
- E-Finance
- Cyber Security
- Open and Distance Learning
- Inventory
- High Cash Burn Rates
- Supply Chain
- In Act
- Legal Systems
- Ransomware Attack

Abstract:

E-Commerce stands for electronic commerce; E-Commerce is doing business online and electronically. E-commerce as anything that involved an online transaction. It provides multiple benefits to the consumer in form of availability of goods at lower cost, wider choices and save time. The general category of E-commerce is divided into two parts

- a) E-Finance
- b) E-Merchandise

E-Commerce involves conducting the business using modern communication instruments, Money transfer, System telephone, E-Payment, fax, E-data, Interchange and the Internet. This paper attempts to highlight the different challenges faced by E-commerce in India and understand the essential growth factors required for E-Commerce.

This paper is outcome of a review of various search studies carried out on E-commerce. It examine different opportunities of E-Commerce i.e. E-Business, E-Learning, Education, Integration, E-Insurance, E-commerce for the WTO and developing countries and future Media of e-commerce. It



raise key challenges that are being faced by consumers relating in e-commerce ie. Ethical issues, perception of risk in e-services encounters, challenges for e-commerce, education. It Act 2000 and legal system finally many companies, organizations and communities in India are beginning to take advantages of the potentials of e-commerce, critical challenges remain to be overcome before e-commerce would become an asset for common people.

1.0 Introduction

Electronic commerce comprises core business process of buying and selling, goods, services and information over the internet. This can range from ordering online, through online delivery of paid content to financial transaction such as movement of money between bank accounts. E-commerce is the use of electronic communication and digital information processing technology in business transaction to create, transform and redefine relationship for value creation between organization and individuals. Today E-commerce is a backbone in Indian society and it has become integral part of our society life. The first E-commerce site in India was rediff.com.

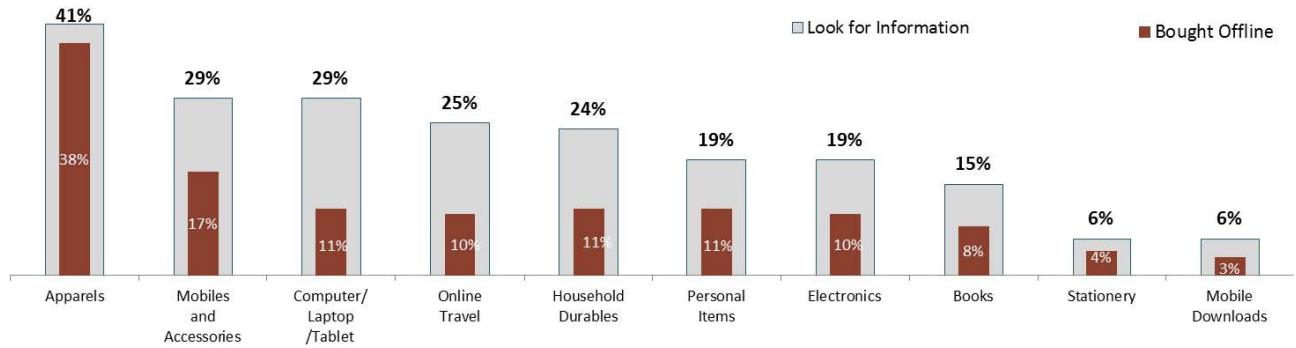


E-Commerce allows us different mode of payment through Debit Card, Credit Card or E-FT (Electronic Fund Transfer) Payment, whereas E-commerce provide us multiple benefits to the customers in form of availability of goods at lower cost, wider choice and saves it times.

This paper has analyzed some of the challenges and opportunities of e-commerce.

Elizabeth Goldsmith and other (2000) response that general category of e-commerce can be broken down into two parts.

- a) **E-merchandise:** Selling goods and services electronically and moving items through distribution channels for e.g. through internet shopping for Tickets, Music, Clothes, Travel, Hard Ware, Books, Groceries, Flowers and Gifts etc.
- b) **E-Finance :** Banking, Smart Cards, Debit Cards, Banking, Machines, Telephone and Internet Banking.



(Base: I-Cube 2014, 9.6 Million Active Internet Users in 35 cities who have only looked for information on the Internet)

1.1 OBJECTIVES OF STUDY

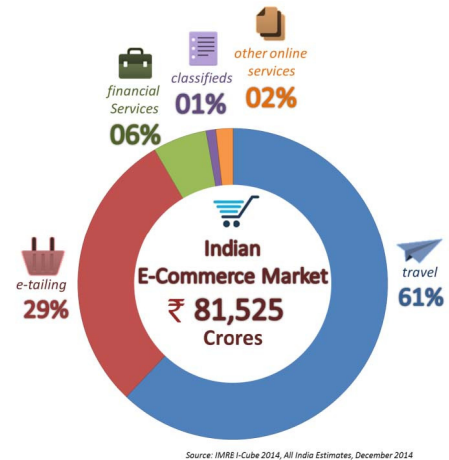
The paper has following objectives:

- To explain the concept of E-commerce
- To study the India’s prospects in E-commerce.
- To study the factors influencing the distribution and forms of Global E-commerce
- To study the various challenges faced by E-commerce in India.
- To study essential factors for growth of E-commerce in India.

1.2 INDIA’S PROSPECTS IN E-COMMERCE

a) Services for Producer:

The producer can take advantages of E-commerce by linking themselves with online, by giving better information about their product to the other links in the business chain and by having brand identity. The producer can sell their goods directly to the consumers and retailers. The producer also provides has easy potential for communication and they can no longer rely on the customer to be forced to communicate with tem by sending leaflets or through advertisements.



Source: IMRB I-Cube 2014, All India Estimates, December 2014

b) Services for whole distributor:

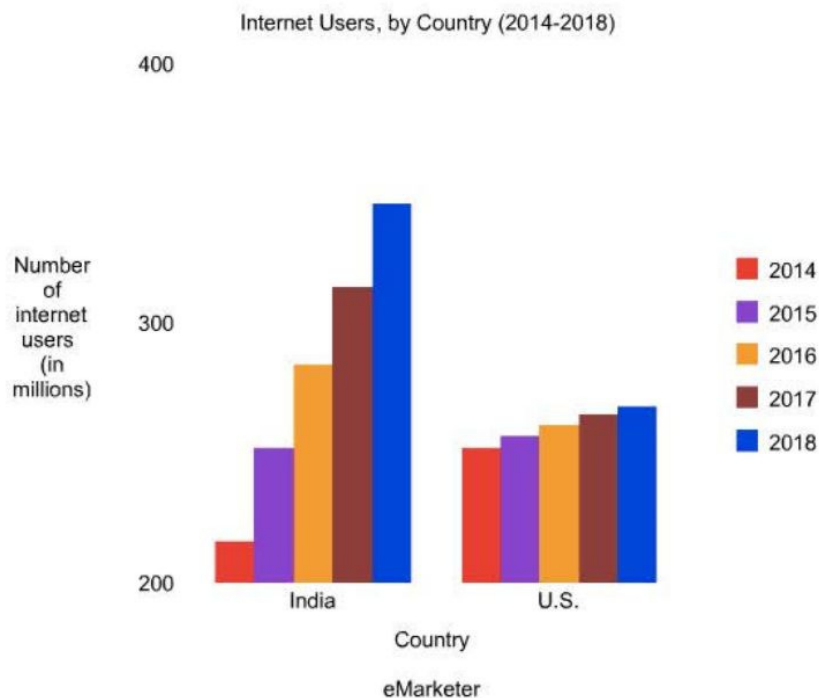
The wholesaler can take advantages of E-commerce who is capable of establishing contractors with reputed producer and linking their business with the online. E-commerce also decreases the cost of creating, processing, distributing storing and retrieving information by digitizing the process.

c) Services for People :

People can buy anything with a click of button without moving from their house or office. The avail the services such as Banking, Ticketing, Airlines Booking, Bus, Railways, Hotel Booking and many more.

d) Services for Retailers :

They can make available much additional information about various things to the consumers, meet electronic orders and be in touch with consumers all the times.

1.3 GRAPH**E-commerce market size of India**

1.4 Factors influencing the distribution and forms of Global E-commerce

To fully exploit the potential of the internet and E-commerce policy maker in developing as well as industrialized countries are taking initiatives to develop the Global Information Infrastructure (GII) and connect their National information infrastructure to the (GII).

Table: 02 Factors influencing the distribution and forms of Global e-commerce

Stage	Economic and infra structure related factors	Socio cultural factors	Political legal factors	Supranational institutions
Internet adoption	Per capita GDP	Literacy rate and computer skill	The internet's democratic nature incompatible with authoritarian political structures	UNDP-introduction of the internet in many countries.
	Availability of telephone and computer	English language skill		GATS-competition in telecom sectors
	Pricing structure	Viewed as a tool of cultural imperialism in some	Tariff and non tariff barriers to ICT products	ITA- reducing the price of ICT products.
Buying/selling online	Availability of credit	Intellectual property protection	Redress mechanisms in case of problems in online transactions	UNCITRAL model law
Advertising and searching phase	Operating speed of computer and modern size	Influence of language and symbols used on site visited and purchase decision	Ban on some website in authoritarian regimes	Products can be advertised and searched globally on GTPN of UNCTAD
Payment phase	Penetration rate of credit cards	Forms of payment: check, wire transfer, cash on delivery etc,	Governments' concern on the outflow of foreign currency.	UNCTAD smart card
Delivery phase	Delivery means and infrastructure	Products stolen some countries	Tariff and non- tariff barriers	Electronic delivery free of custom duties in WTO member

1.5 Brief Review of literature on E-commerce challenges and Opportunities

An attempt has been made to put forward all brief review of literature on E-commerce; The literature is based on studies undertaken worldwide in the area of E-commerce.

Table: 02 A brief review of literature on E-commerce: Challenges and opportunities

No.	Title	Author	Area of research	Findings
1	Towards compability: The future of e-commerce within the global trading system	(Andrew D. Mitchell,2001)	Important function played by GATS,WTO in e-commerce	1)At the level of global trading system, exploring how recognition of electronic commerce as a global public good may help reduce the digital divide between developed and developing countries.
2	E-commerce , WTO and developing countries	(Arvind panagariya,2000)	Economic issues raised by e-commerce for the WTO and developing countries. access to e-commerce	1)E-commerce offers unprecedented opportunities to both developing and developed countries.
3	Ethical Issues in e-commerce	(Bette Ann Stead andJackie Gilbert, 2001)	Ethical issues in e-commerce	1) The ethical issues presented in this article are all very real. 2) Rapidly changing technology is continually bringing new products/services to the market accompanied by new strategies to sell them. Therefore, it may also conclude that new ethical issues will emerge.
4.	Will E-business shape the future of open and distance learning?	(Diana Oblinger, 2001)	Impact of e-business on open and distance learning	1) Open and distance learning institutions are finding that the need and demand for their services are increasing. 2) E-business can provide education with insight new ways to create greater efficiencies and economies of scale as well as practices that ensure learners stay with the institution for their lifetime.
5	E commerce an Indian perspective:	(Farooq Ahmed, 2001)	IT act, Contract act, challenges for the legal system	1) Many issues raised by the e-commerce await judicial resolution. 2) The information transferred by electronic means which culminates into a contract raises many legal issues which can't be answered with in the existing provisions of the contract act.
6	Determinants of the locus of Global E-commerce	(Nir B kshetri, 2001)	Factors influencing the distribution of global e-commerce	1) The analysis indicated that the twin forces of globalization and multiple revolutions in ICT(communication technologies) are fuelling the growth of global e-commerce.
7	TV, PC or Mobile? Future media of e-commerce:	(Patric Barwise,2001)	Various new media for B2Band B2C e-commerce.	1) Consumer marketers are still in the early stages of adjusting to the unprecedented complexity of a world

				with so many physical, online and traditional offline consumers.
8	E-Commerce in the Indian Insurance Industry: prospects and future	(Prithviraj dasgupta and Kasturi Sengupta,2002)	E-commerce in Indian industry	1) The study has identified that e-insurance offers a potentially vast source of revenue for insurance companies that venture to go online. 2) E-insurance also makes the insurance procedure more secure since the policy details are stored digitally and all transactions are made over secure channels.
9	The death of physical distance: An economic analysis of the emergence of electronic marketplaces	(Young Jun Choi and Chung Suk suh, 2005)	Traditional market place and e-market place	1) The study has shown that overcoming spatial barriers by means of e market places lowers the price level. 2) This article has analyzed the economic consequences of the death of geographical distance due to the emergence of e-marketplaces.
10	Electronic Commerce education: Analysis of existing courses	(Zabihollah Rezaee, Kenneth R. Lambert & W. Ken Harmon, 2005)	The scope and nature of e-commerce education	1) E-commerce programs and courses are likely to grow and thus, the structure, content, and delivery of e-commerce education are evolving and they should be tailored to the particular discipline.
11	Is that authentic or artificial? Understanding consumer perceptions of risk in e-service encounters.	(Mauricio S. Featherman, Joseph S. Valacich & John D. Wells,2006)	Customers' perception about e-services.	1) E-services are the application of IT to mediate the production and distribution of services directed towards an individual's mind or intangible assets. 2) The results from this study supported the contention that e-services of less risky e-service categories will be perceived as more authentic and less risky to use. Thus, e-service providers must carefully assess their respective categories and plan accordingly.

1.6 Challenges in E-commerce :



Besides the great advantages of E-commerce they posed many treats because of its being what is popularly called faceless and borderless

1. Ethical issues
 - Privacy
 - Security concerns
 - Other ethical issues
2. Perceptions of risks in e-services encounters
3. E-commerce Integration
4. It Act 2000 and Legal systems
5. Human skills required for E-commerce

1. Ethical Issues :

- Privacy : Privacy consists of not being interfered with having the power to exclude individual privacy is a moral right. it is a desirable condition with respect to possession of information by other person about their own observation by other people.
- Security concerns: Security concerns fear of making online payment is a Universal psychological factor of Indian Customer 60% of the user do not trust the web as payment channel.
- Other ethical issues .

2. Perceptions of risks in e-services encounters :

E-services replacements may seem unfamiliar, artificial and non-authentic in comparison to traditional services process method. Consumer may believe that new internet based processing methods expose them to new potentials risk the danger of online fraud identity theft are likely to cause alarms and fear within consumers.

3. E-commerce Integration :

This approach requires a great deal of coordination among faculty and disciplines in business school to ensure proper coverage of E-commerce education.

4. It Act 2000 and Legal systems :

The information transferred by electronic means which culminates into a contract raises many legal issues which cannot be answered within the existing provision of the contract Act. The It Act does not form a complete code for the electronic contracts. Farooq Ahmed (2001) that some of the multifaceted issues raised are summarized in following manner.

- (I) Formation of E-Contracts
 - a) Contracts by data inter-changes
 - b) Cyber contracts
- (II) Validity of E-transaction
- (III) Dichotomy of offer and invitation to treat
- (IV) Communication of offers and acceptance
- (V) Mistake in E-commerce : a) Mutual Mistake b) Unilateral mistake

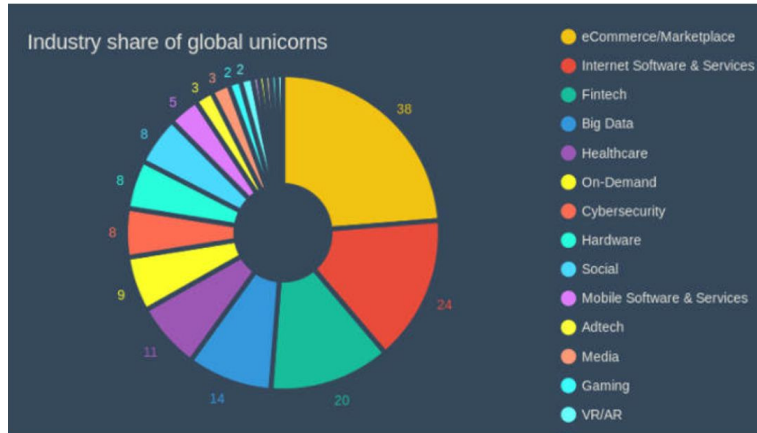
(VI) Jurisdiction cyber space transaction know no National and International boundaries and are not analogous to 3-dimensional world in which common law principles involved.

(VII) Identity of Parties : This issue of jurisdiction applicable law and enforcement of judgments are not confined to only National boundaries. The problems raised are global in nature and need global resolution.

5. Human skills required for E-commerce :

Developing electronic commerce solution successfully across the organization means building reliable, scalable systems for

- a. security
- b. E-commerce payment
- c. integrating all this existing back-end-operation
- d. supply chain management
- e. sales force, data warehousing customer relations.



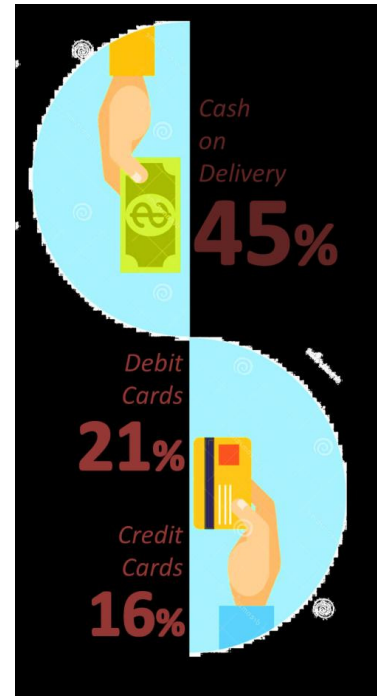
1.7 Essential factors for growth of E-commerce in India



There are online giants for shopping and travelling like flip kart.com. sanpdeal.com, Make mytrip.com. who have overcome the challenges and represents the perfect growth trends of E-commerce in India.

E-commerce space is a booming space as internet avoidance are likely to double in next 2-3 years and this industry will require talent from various sectors like Technology, Product, Analytics, Sourcing General Management Talent, Merchandising and Marketing.

- a. Customer Convenience
- b. Unique or Transparent
- c. Location based Services
- d. Adoption of Multi-Channel Investment
- e. Multiple Payment Option



1.8 Ransomware Attack :



The **WannaCry ransomware attack** was a May 2017 worldwide cyber attack by the **WannaCry** ransomware cryptoworm, which targeted computers running the Microsoft Windows operating system by encrypting data and demanding ransom payments in the Bitcoin crypto currency

This attack began on Friday, 12 May 2017, and within a day was reported to have infected more than 230,000 computers in over 150 countries. Parts of the United Kingdom's National Health Service (NHS) causing it to run some services on an emergency-only basis during the attack, Spain's Telefónica, FedEx and Deutsche Bahn were hit, along with many other countries and companies worldwide.[9][10][11] Shortly after the attack began, a 22-year-old web security researcher from North Devon in England known as MalwareTech discovered an effective kill switch by registering a domain name he found in the code of the ransomware. This greatly slowed the spread of the infection, effectively halting the initial outbreak on Monday, 15 May 2017, but new versions have since been detected that lack the kill switch. Researchers have also found ways to recover data from infected machines under some circumstances.

Wanna Cry propagates using Eternal Blue, an exploit of Windows' Server Message Block (SMB) protocol. Much of the attention and comment around the event was occasioned by the fact that the U.S. National Security Agency (NSA) had already discovered the vulnerability, but used it to create an exploit for its own offensive work, rather than report it to Microsoft. Microsoft eventually discovered the vulnerability, and on Tuesday, March 14, 2017, they issued security bulletin MS17-010, which detailed the flaw and announced that patches had been released for all Windows versions that were currently supported at that time, these being Windows 7, Windows 8.1, Windows 10, Windows Server 2008, Windows Server 2012, and Windows Server 2016, in addition to Windows Vista (which had recently ended support). However, many Windows users had not installed the patches when, two months later on May 12, 2017, WannaCry used the Eternal Blue vulnerability to spread itself. The next day, Microsoft released emergency security patches for Windows 7 and Windows 8.

Those still running older, unsupported versions of Microsoft Windows, such as Windows XP and Windows Server 2003, were initially at particular risk, but Microsoft released an emergency security patch for these platforms as well. Almost all victims of the cyber attack were running Windows 7, prompting a security researcher to argue that its effects on Windows XP users were "insignificant" in comparison. Within four days of the initial outbreak, security experts said that most organizations had applied updates, and that new infections had slowed to a trickle. Several organizations released detailed technical write ups of the malware, including Microsoft, Cisco, Malwarebytes, Symantec and McAfee. The "payload" works in the same fashion as most modern ransomware: it finds and encrypts a range of data files, then displays a "ransom note" informing the user and demanding a payment in bitcoin. It is considered a network worm because it also includes a "transport" mechanism to automatically spread itself. This transport code scans for vulnerable systems, and then uses the Eternal Blue exploit to gain access, and the Double Pulsar tool to install and execute a copy of itself.

Content :

- Description
- Kill Switch

- Eternal Blue
 - Double Pulsar
 - Attributions
 - Cyber Attack
 - Ransomware analysis
 - Defensive response
 - Advice on ransom
 - Impact
 - EternalRocks
 - Reactions
 - Affected organizations
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1.9 Conclusion

In this paper we discuss, E-commerce provides various services to wholesalers. who can take advantages of E-commerce with well known and reputed produces and can link their business with the online E-commerce offers the benefits for e.g. cost effectiveness, quick comparison shopping better customers services, information saving knowledge market development.

E-commerce creation new opportunities business it also creates new opportunities for education and academics. It appears that there is tremendous potential for providing business education.

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