



## INTERNET AND INFORMATION TECHNOLOGY- TRANSITION TOWARDS INFOTECH SOCIETY OF COMMERCE AND BUSINESS

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### ABSTRACT

*The boom in technology and information technology really started to show its impact since the late '80s, when the computers penetrated the eco-system of business and commerce. The paradigm shift happened in 1995 with the advent of World Wide Web. The unique feature of the current world economic order is that the internet which is creeping into the business and commerce in all formats. There is no doubt that the technology and communications in the integrated manner shall remain and improvise the way businesses are conducted. The internet and information technology has evaded the geographical and time constraints. Services industry shall be impacted positively and progressively through the internet. China and India, populous countries and the largest proportion of the population in the age group of 18-35 is an advantage with the high degree of acceptance of technology. Demographic dividend has to be harnessed for the better advantage of the commerce and business.*

**KEYWORDS:** World Wide Web, ICT, Services, Business, Collaboration, Technology.

### INTRODUCTION

The internet has revolutionized the computer and communications world like never before. The invention of the telegraph, telephone, radio and computer set the stage for this unprecedented integration of capabilities. The internet is at once a

world- wide broadcasting capability, a mechanism for information dissemination, and a medium for and interaction between individuals and their computers without regard for geographic location.

In the last two decades technology has significantly changed. Computers specifically are now

quicker, faster and most importantly more accessible. Convenience is becoming of more and more importance in contacting people throughout the world has never been easier. As a result of this, e-commerce was born.

E-Commerce stands for electronic commerce and is defined as buying and selling of goods or services over electronic systems most prominently the internet. Beyond strictly internet based businesses, e-commerce also entails improvement in business functions for traditional retailers. It also affects business from tasks including development, marketing, communications, sales, logistics, servicing, payment, accounting and more. These innovations in existing business functions drastically improve productivity and can have dramatic impact on the economy.

### **E-COMMERCE: THE FIRST DECADE**

E-commerce was not so easy for the businesses to convince the consumers. They had to fight for credibility. The concept was not easy. It would take a lot of processing time for the image to appear on the screen. Slowly, things changed. People came in record numbers embracing e-commerce.

### **E-COMMERCE: THE PRESENT TREND**

E-commerce is international. Asia represents the largest on-line market in the world. Asia is an emerging market, it is experiencing rapid growth and an industrialization. Emerging markets are an excellent opportunity as they are in constant demand in innovative products. Thanks to e-commerce, it had never been easier to conduct business throughout the world enriching international customers has never been timelier. E-Commerce is also an incredible tool for new businesses as it allows them rapidly broaden their customer base. E-Commerce continues to grow.

### **WHAT IS THE FUTURE OF E-COMMERCE?**

M-Commerce and digital goods are the crux of e-commerce. M-Commerce means the use of wireless mobile devices to transact business. The youth are potential consumers which the businesses are tapping by offering good packages and attractive offers. Before, it was that convince the parents to buy goods and they would in turn convince the children. Now there is a paradigm shift. Convince the children to convince the parents.

Digital goods have also seen a revolution. Digital goods are the "goods that can be delivered

over a digital network". The Digital goods has changed totally the way your product is marketed. The music industry particularly MP3s industry is affected drastically by digital delivery.

### **THE HISTORY OF E-COMMERCE**

Sometimes it seems like e-commerce has always been a part of our lives. Most of us make business transactions online on such a regular basis that it is difficult to imagine a time when you were not able to do so. Despite this, the history of e-commerce is actually a relatively short history. It began less than fifty years ago and its humble beginnings look nothing like the kind of electronic business transactions that we see today. Even up until the 1990's, online business wasn't a reality for the average person. So how did we get to the point where e-commerce has become practically a way of life?

The development of e-commerce was one of those things that happened slowly and then suddenly. At its very basic level, the term refers simply to any commerce that takes place electronically. This includes ATM and credit card transactions as well as the ability to do billing and invoicing through electronic methods. The technology allowing this kind of commerce took hold in the late 1970's and grew steadily throughout the 1980's. It was during this time that people started to use credit cards on a regular basis and that set the foundation for electronic commerce to get a toehold in society.

However, it wasn't until the development of the Internet that e-commerce started looking like the type of business that we know today. For most people talking about it now, the term refers to transactions, which take place completely through the web. When you search for an item on sites such as eBay or Amazon and then pay with a credit card or online checking account, you're conducting the kind of e-commerce that most people think of when the term comes up. That wasn't made possible until the average person began to use the Internet in the 1990's.

Two things happened in the mid-1990's to make this kind of e-commerce a possibility. First, computer security was strengthened enough to make consumers and businesses feel comfortable with conducting these types of transactions online. Second, the average person began to gain familiarity with the web and started using it for every day activities such as online shopping. Combined with the fact that web design was improving and the speed of the Internet was increasing, e-commerce had a platform for development. In 1995, Amazon.com was

launched and we really started seeing the type of e-commerce that we're used to today.

Despite the fact that the web looked a lot then like it does now, there were several factors that inhibited the growth of the online business at this time. For one thing, many people still didn't have high speed Internet in their homes so online shopping tended to be limited to what could be done in the workplace. Additionally, many small businesses invested too much money in creating a web presence and they weren't able to sustain that development due to lack of funds. At the turn of the twenty first century, the dot-com bust happened and many of these businesses went broke.

Of course, we survived the dot-com bust and the Internet came back in a bigger and better way. Today, the average person not only has a home computer but also has the high speed Internet

connection that lets him or her move easily between web pages. This makes it easy to do comparison-shopping online. More importantly, the availability of high speed Internet has increased the ability of people to work from home. These people often set up e-commerce sites, which allow them to sell products without needing a whole business behind them. These two factors combined have made it so that e-commerce has become a part of our daily lives. Now if we could only find a way to spend less than we make, we'd all be in good shape.

### **TIMELINE OF E-COMMERCE**

E-commerce can be traced back to the first electronic computers, which were built in the 1950s (Smith, K.T. 2008). However, e-commerce did not gain extensive popularity until development of the World Wide Web in the 1990s. A timeline of events concerning the Internet and e-commerce is provided in Exhibit 1

### **Exhibit 1**

#### **A Timeline of Events Regarding the Web and E-Commerce**

1946 The first electronic computer, ENIAC, is constructed at the University of Pennsylvania.

1957 The Soviet Union launches Sputnik, the first artificial satellite.

1958 To counter Soviet technological advances, the U.S. forms the Advanced Research Projects Agency (ARPA), with the Department of Defense, to develop U.S. leadership in science and technology applicable to the military.

1969 ARPANET, the forerunner of the Internet, established with four nodes: UCLA, Stanford, UC-Santa Barbara, and University of Utah.

1970 First applications of electronic data interchange (EDI).

1973 First international connection to ARPANET, University College of London.

Initial work on a transmission protocol (later to be called TCP/IP) that allows diverse computer networks to interconnect and communicate with each other.

1974 BBN opens Telnet, the first commercial version of ARPANET.

1982 Transmission Control Protocol (TCP) and Internet Protocol (IP) established by ARPA. This leads to a definition of an "internet" as a connected set of networks, specifically those using TCP/IP, and "Internet" as connected TCP/IP internets.

1983 Internet Activities Board (IAB) is created.

1984 Science fiction author William Gibson coins the term "cyberspace" in his novel, *Neuromancer*. Internet host computers (computers with registered IP address) exceed 1,000.

1987 Internet users exceed 10,000.

1988 Internet worm disables 6,000 of 60,000 Internet hosts. A Cornell University graduate student created the worm. Infected computers were connected through ARPANet and other E-mail networks in the Internet loop. Some of the US's top science and research centers were affected.

1989 Internet users exceed 100,000.

1990 The ARPANET is shut down.

1991 Sir Tim Berners-Lee, working at CERN in Geneva, develops a hypertext system to provide efficient information access. He posts the first computer code of the World Wide Web in a relatively innocuous newsgroup, "alt.hypertext." Later, people refer to the Internet itself as the Web.

1992 World Wide Web released by CERN.

1994 Pizza Hut sells pizza on its website. First Virtual, the first cyberbank, opens.

1997 Inception of business-to-business (B2B) e-commerce. US Postal Service issues electronic postal stamps.

2000 Internet users exceed 360 million.

2011 Internet users tally almost 2 billion. Users in over 200 countries are connected.

*Sources: Smith et al. (2010) and Internet World Stats (2011).*

## **BRIEF NOTE ON ELECTRONIC COMMERCE IN WTO- GENESIS OF E COMMERCE IN WORLD TRADE ORGANISATION**

Recognising that Global Electronic Commerce is growing and creating new opportunities for trade, Trade Ministers at the Second Ministerial Conference of WTO, Geneva (17-20<sup>th</sup> May, 1998), adopted a Declaration to commence a work programme on the subject in the General Council of WTO, for making recommendations to the next Ministerial Conference. In the meanwhile, it was decided to continue with the current practice of not imposing customs duty on electronic transmissions, a decision which was also to be reviewed at the Third Ministerial Conference. The work programme involving the relevant WTO bodies was to take into account “the economic, financial and development needs of developing countries”, and also the work being undertaken in other international fora on this subject. Commerce Minister, in his statement at WTO, emphasized that a standstill on export duties on electronic transmission should be precursor to a more dynamic regime of technology flows and free movement of professionals and technicians in this field. The Geneva Declaration has formed the basis of zero duty on electronic commerce from May 1998 to December, 1999. The Third Ministerial Conference of WTO at Seattle could not review the work programme relating to e-commerce. Thereafter, no decision has yet been taken on the issue of extending the period of zero duty on e-commerce.

### **THE E-COMMERCE REVOLUTION**

Years ago, an airline ticket booking would take days together and would not reach on time also. In 2010, there was instantaneous booking. There was a transaction concluding on a real-time basis. Within five minutes, the consumer could get the printout of the e-ticket.

“The use of the internet to transact business”, e-commerce has transformed the

traditional businesses into “E-Businesses”. The quicker transactions have resulted in customer satisfaction. Lesser staff has led to flattened structures and fast decision making. The larger market place have given companies wider market place. The customer gets more choice for the purchase of goods. Price comparison helps to get value for money. Quicker transactions have resulted in timely transactions.

### **TRADITIONAL BUSINESS VERSUS E-BUSINESS**

Being in a 21<sup>st</sup> century, the information has become the new currency. We value information more than ever before. E-Commerce or E-Business is where we can share business information, maintain business relationships and conduct business transactions through the use of telecommunication networks. Traditional businesses were dependent on print media, T.V., motion picture, radio and so on. But, through E-Commerce, the transactions can be done on handheld pocket mobiles.

### **E-COMMERCE IN DEVELOPED COUNTRIES VIS-A-VIS DEVELOPING COUNTRIES**

The infrastructure of commerce in developed countries is good. E-Commerce is a supplement to main business. E-Commerce is quintessential to on-line shopping. The developing countries do not have well-developed super markets. So, it helps the small manufacturing firms to get a platform to run an ecosystem. Job created by e-commerce are different and varied. The E-Commerce has provided solution to many problems like payment of electricity bills, water bills, taxi bills and the like. E-Commerce has changed the life styles of people at gross-root level.

## CONCLUSION

The E-commerce has reached the lives of people in many different forms and ways. Transactions are done over mobiles on a real time basis. There is a need for more sophistication in the service industry. E-Commerce needs a touch of more creativity. New ideas have to emerge. What is needed today is “***different things have to be done rather than doing things differently***”.

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