

# **E-Commerce Applications in India: An Empirical Study**

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## **APPENDIX - I**

### **CERTIFICATE FROM THE GUIDE**

This is to certify that the Project work titled "**E-Commerce Applications in India - An Empirical Study**" is a bonafide work carried out by **Ms. Apeksha Lewis** (Admission No **DPGD/JL06/0466**) a candidate for the Post Graduate Diploma examination of the Welingkar Institute of Management under my guidance and direction.

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## EXECUTIVE SUMMARY

A developing country can become industrialized and modernized if it can extensively apply IT to enhance productivity and international competitiveness, develop e-commerce and e-governance applications. An information-based society or knowledge based society is composed of IT products, IT applications in society and economy as a whole. Many countries in Asia are taking advantage of e-commerce through opening of economies, which is essential for promoting competition and diffusion of Internet technologies. The Internet is boosting efficiency and enhancing market integration in developing countries. The developed world has had a long lead over the developing countries in the telecom infrastructure. The world average of tele - density is 15 per cent compared to the developed world average of 55 to 60 percent. Same is true of PCs, Internet connections, and the number of Internet hosts. All these traditional indicators for India as seen above are still small. But the total numbers of Internet connections are large in absolute numbers. Large enough to have critical masses of 10 to 20 million make an impact on e-commerce and e-governance. 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. The number of e-transactions will be large enough to sustain the Internet economy.

# Chapter 1

## Introduction

The past two years have seen a rise in the number of companies' embracing e-commerce technologies and the Internet in India. Most e-commerce sites have been targeted towards NRI's with gift delivery services, books, audio and videocassettes etc. Major Indian portal sites have also shifted towards e-commerce instead of depending on advertising revenue. The web communities built around these portal sites with content have been effectively targeted to sell everything from event and movie tickets to groceries and computers. The leader in these services being Rediff on the net ([www.rediff.com](http://www.rediff.com)) and India plaza which started a shopping section after their highly successful content site generated WEB visitors. In spite of RBI regulation, low Internet usage e-commerce sites have popped up everywhere hawking things like groceries, bakery items, gifts, books, audio & videocassettes, computer etc. None of the major players have been deterred by the low PC penetration, credit card usage in India have also tried to close the success worldwide of online commerce. BPB publication went online selling its complete range of computer books about 2 years ago, it might not have the success of an Amazon.com or Barnes and Noble, but they definitely have promised the cause of e-commerce in India with at least 1 to 5 web sites like Indiabookshop coming online.

This is not to say that the e-commerce scenario has been bad in India, as highly successful e-businesses like Baba Bazaar and India mart have proved themselves. Indian Banks too have been very successful in adapting EC and EDI Technologies to provide customers with real time account status, transfer of funds between current and checking accounts, stop payment facilities etc. ICICI Bank, Global Trust Bank and UTI-Bank also have put ebanking over the internet facilities in place for the up coming e-commerce market speed post also plain to clone the FedEx story with online package status at any moment in time . The future does look very bright for e-commerce in India with even the stock exchanges coming online providing an online stock portfolio and status with a fifteen minute delay in prices. The day cannot be far when with RBI regulations we will be able to see stock transfer and sale over the Net with specialized services like schwab and e-trade.

Though with security and encryption being proven, technology for the transfer of funds over the Internet, the Indian Government still has problems with 'Digital signatures' and verification processes over the Internet. This combined with RBI norms and regulations has

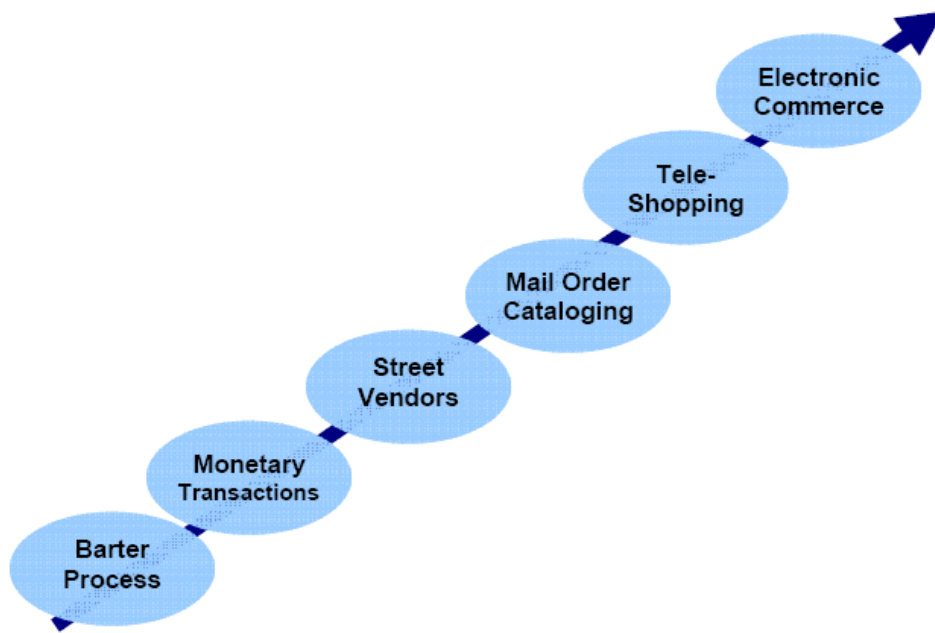
proved a major hurdle for e-commerce even though VSNL India's monopolistic ISP does want to jump on to the electronic transaction bandwagon with the advent of private ISP's and India's new and positive attitude towards IT and the prime ministers new 'IT policy "the future is very positive in India for doing commerce."

### 1.1 Evolution of Commerce

Commerce has evolved over the centuries. Prior to the evolution of money it was the simple “**barter process**” where things could be exchanged, say milk for grains. The evolution of money brought with it, the concept of a “**marketplace**”. In a marketplace, Commerce is function of 4 P's – Product, Price, Place and Promotions. All these four components play a vital role in a transaction to take place. Different combinations of 4Ps determine different forms of Commerce. Once the marketplace came into existence, a few pioneers realised that people would be ready to pay extra if they could deliver products at the customer's doorstep. A slight modification on Price and Place led to the convenience of getting products at their homes. This concept delighted the customers and thus, the concept of “**Street Vendors**” was born.

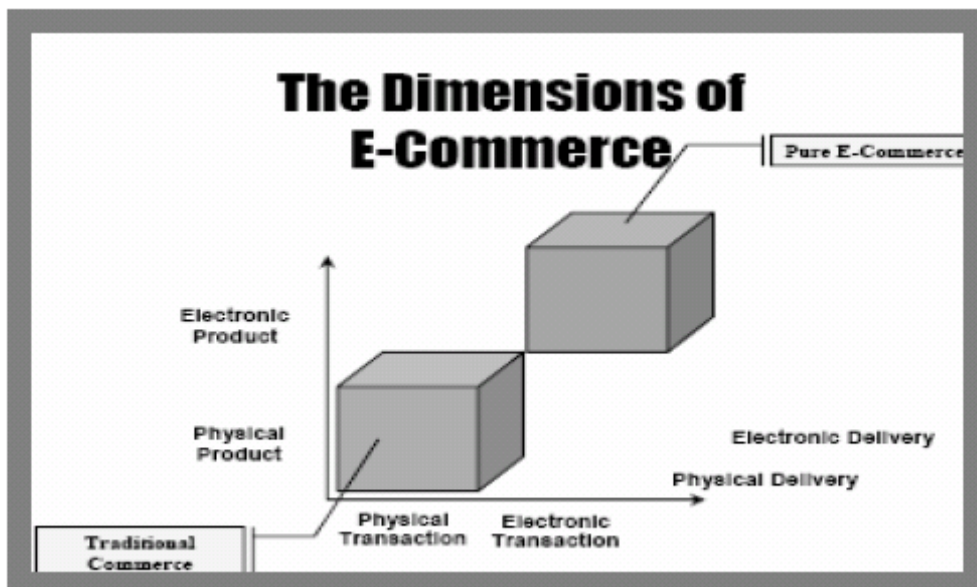
When the Postal System came into being the sellers decided to cash in on the new opportunity and started using mailers giving description of their products. It led to the concept of “**Mail Order Cataloguing**”. From here, the evolution of the “**Tele shopping**” networks was thus inevitable with the development of media vehicles.

The latest generation of commerce is one that can be done over the internet. Internet provides a virtual platform where sellers and buyers can come in contact for sale and purchase of goods and services. They can be thousands of miles apart, may belong to different parts of the world, might speak different languages, “**E-Commerce**” emerged as the boundary-less trade medium in the era of globalization.



**Fig 1.1 Evolution of Commerce**

Since, Internet has the ability to reach the customer's home; the Distribution Channel has started to assume new meaning to the B2C and C2C e-Marketer. The Physical delivery got converted to electronic delivery; physical products were now electronic products, displayed on a website. With options of paying online through debit and credit cards, even the transaction was purely electronic.



**Fig 1.2: The Dimensions of E-Commerce**



Another important P for the e marketer, Promotion, assumed importance, especially because there is no face to face interaction between the buyer and seller. The focus of online promotions is the 'great deals', 'discounts', 'convenience' offered by the Marketers.

## **1.2 The Status of E-Commerce in India and its Potential**

E-commerce stands for electronic commerce and pertains to trading in goods and services through the electronic medium, i.e. the Internet or phone. On the Internet, it pertains to a website, which sells products or services directly from the site using a shopping cart or shopping basket system and allows credit card payments.

## **1.3 E-Commerce in India today**

Today E-commerce is a byword in Indian society and it has become an integral part of our daily life. There are websites providing any number of goods and services. Then there are those, which provide a specific product along with its allied services.

### **1.3.1 Multi-Product E-Commerce**

Some Internet portals provide almost all categories of goods and services in a single site; hence, they are targeting buyers of every possible product and service. The most popular examples are [www.indiaplaza.com](http://www.indiaplaza.com), [www.thebestofindia.com](http://www.thebestofindia.com), [www.khoj.com](http://www.khoj.com), [www.sify.com](http://www.sify.com), [www.rediff.com](http://www.rediff.com), [www.indiatimes.com](http://www.indiatimes.com) and so on.

These Indian E-commerce portals provide goods and services in a variety of categories. To name a few:

- Apparel and Accessories for men and women
- Health and beauty products
- Books and magazines
- Computers and peripherals
- Vehicles
- Collectibles
- Software
- Consumer electronics
- Household appliances
- Jewellery

- Audio/Video entertainment goods
- Gift articles
- Real estate and services
- Business opportunities
- Employment
- Travel tickets
- Matrimony
- Pets...and more.

### 1.3.2 Single-Product E-Commerce

Some Indian portals/websites deal in a specialized field, for example:

#### ➤ *Automobiles:*

Examples are: <http://www.indiacar.com/> and <http://www.automartindia.com/>.

On these sites we can buy and sell four-wheelers and two-wheelers, new as well as used vehicles, online. Some of the services they provide are:

- Car research and reviews
- Online evaluation
- Technical specifications
- Vehicle Insurance
- Vehicle Finance
- Dealer Locator
- Regional Transport Office regulations
- Expert speak
- Message board...and more.

#### ➤ *Stocks and shares and e-commerce*

In India today, we can even deal in stocks and shares through e-commerce. Some of the sites are: [http://www.equitymaster.com](http://www.equitymaster.com;); <http://www.5paisa.com>.

Some of the services offered to registered members are:

- Online buying/dealing of stocks and shares;

- Market analysis and research
- Company information
- Comparison of companies
- Research on Equity and Mutual Funds
- Tracking Market Trends
- Hotline for advice on Risk Management
- 24-Hour helpdesk....and more.

➤ ***Real estate and E-commerce:***

Portals like <http://www.indiaproperties.com/> facilitate online dealing in real estate. They offer either outright purchase or lease of a property through their portal. They provide information on new properties as well as properties for resale. One can deal directly with developers or builders or through consultants and brokers.

Allied services:

- Housing Finance
- Insurance companies
- Architects & Interior Designers
- NRI services
- Property Management Consultants
- Packers & Movers
- Security & Maintenance Services
- Vaastu or Feng Shui Consultants....and more.

➤ ***Travel & Tourism and E-commerce:***

India has a rich history with cultural heritage and e-commerce is instrumental, to a large extent, in selling India as a product, encouraging Indians as well as foreigners to see its multifaceted culture and beauty. A major Government of India portal, <http://www.tourisminindia.com/>, has a vast variety of information for a potential tourist.

The tourist destination sites are categorized according to themes like:

- Adventure - trekking, mountain climbing etc
- Eco-Themes pertains to jungles, flora and fauna

- Beaches of India
- Architectural attractions
- Forts and Palaces
- Buddhist attractions
- Hill resorts
- Desert treks
- Pilgrimage sites

Allied services offered are:

1. Passport & visa
2. Travel & accommodation information
3. Weather information
4. Festival & fair dates
5. Shopping
6. Tour Operators
7. Information on Cuisine & Restaurants
8. Car rental services...and more.

There are also sites that highlight the tourist destinations of a specific region in India, like <http://www.incredibleindia.org/>, which covers North East India.

➤ ***Gifts and E-commerce:***

In the bygone days, one had to plan what to gift a loved one, trudge across to your favourite shop, and browse for hours before purchasing a gift. Today there are specific Indian websites making the act of gifting quick and easy to suit ones lifestyle. One such site is <http://www.indiangiftsportal.com/>.

The gifts are categorized as:

1. Collectibles like paintings and sculptures
2. Luxury items like leather goods, perfumes, jewellery boxes, etc
3. Household curios and carpets, etc
4. Toys & games
5. Chocolates
6. Flowers

7. Wood-craft & metal-craft
8. Idols for worship...and more.

Also the items can be searched by different regions of India, as every region has a special style in making handicrafts.

➤ ***Hobbies and E-Commerce:***

The most popular hobbies from time immemorial are reading, music and films. On the Indian website <http://www.firstandsecond.com/> one can buy more than 300,000 titles of books, cassettes, VCDs and DVDs.

The books cover a wide range of topics like Business, Art, Cookery, Engineering, Children's Stories, Health, Medicine, Biographies, Horror, Home & Garden, etc.

As for music and videos, they are available in English as well as in Indian languages to cater to the varied tastes and the topics range from devotional songs, old-time favourites and retro and jazz to the latest pop, rap, etc.

➤ ***Matrimony and E-commerce:***

It is said that marriages are made in heaven, but in the world of E-commerce they are made on marriage portals like <http://www.jeevansathi.com/> (meaning life-partner.com in Hindi) and <http://www.shaadi.com/> (meaning marriage.com in Hindi).

One can search for a suitable match on their websites by region of residence (India or abroad), religion or caste. Once registered with them, they have email facility and chat rooms too, so that the couple gets to know more about each other before making the biggest decision of their lives.

Allied services for registered members:

1. Astrological services
2. Information on Customs and Rituals
3. Legal issues
4. Health & Beauty
5. Fashion & Style
6. Wedding Planners

7. Honeymoon Destinations...and more.

➤ **Employment and e-commerce:**

Two major portals like [www.monsterindia.com](http://www.monsterindia.com) and [www.naukri.com](http://www.naukri.com) (meaning job.com in Hindi) are instrumental in providing job seekers with suitable employment at the click of a mouse. They have directories categorized under the headings Employers and Job Seekers. The service for job seekers is free and for Employers they charge a nominal fee. Jobs are available online in fields ranging from secretarial to software development, and from real estate to education. The opportunities offered are unlimited.

## **1.4 Facilitators of E-Commerce in India**

### **1.4.1 Information directories**

Portals like <http://www.trade-india.com/> and <http://trade.indiamart.com/> maintain directories giving trade details on almost any topic, whether it is from apparel to toys, from gems to heavy machinery, or from food to employment. The products and services are listed with appropriate sub-headings to make it easy for a serious information-seeker to find what he wants. Some other similar sites are <http://www.indiagrid.com/>, <http://indiainfo.com/>, and <http://in.indiatimes.com/>.

Allied services provided by them: Message boards, chat rooms, forums, etc.

### **1.4.2 Banks:**

➤ **Netbanking / phone banking:**

This is an online banking facility available for savings account holders as well as current account holders. Some of the special Netbanking services are:

- Demat accounts for sale/purchase of stocks and shares
- Foreign Exchange services
- Direct/Instant payment of bills on the account-holder's behalf
- Financial Planning & advice
- Electronics Funds Transfer
- Loans to account-holders
- NRI services...and more.

➤ **Credit/Debit Cards:**

Banks facilitate E-commerce by providing the most vital trade instrument, namely the Credit or Debit Card, without which E-commerce would be impossible. Some of the major Indian players in this field are: <http://www.hdfcbank.com/>, <http://www.icicibank.com/> and <http://www.statebankofindia.com/>.

### **1.5 Potential of E-Commerce in India**

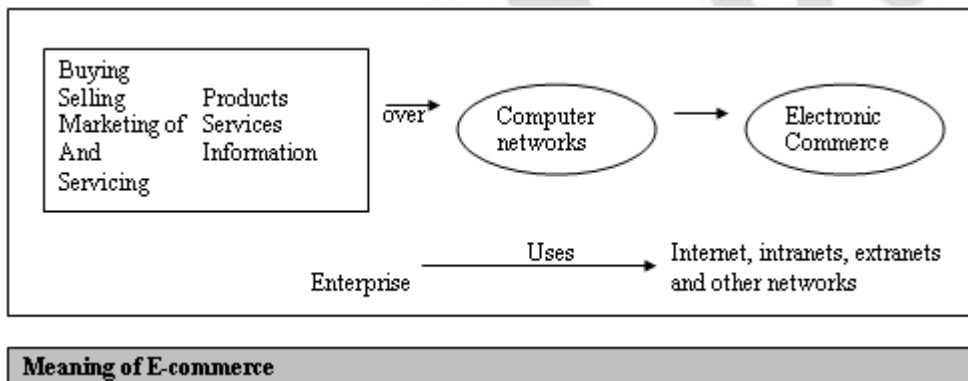
Microsoft Research India was inaugurated in January 2005 in Bangalore, as the sixth MSR laboratory in the world. The arrival of a giant like Microsoft itself speaks of India's potential as a world-player in the field of Information Technology and e-commerce; and others will soon follow. Indian researchers and technicians can further the fast emerging world of E-commerce in India and take it to greater heights.

What does the future hold for e-commerce? Many would say it is difficult to predict. The forces that determine the web's winners and losers are just taking shape and technological advances could add even more uncertainty. On the downside, some experts predict that it will be increasingly difficult for smaller companies to establish their presence. Public companies and traditional brand name retailers have deep pockets and a name recognition that will make it difficult for smaller sites and mom-and-pop shops to attract customers, thereby forcing them to compete with the big boys. On the Net, it's one big neighbourhood. On the upside, nearly all experts believe that overall e-commerce will increase exponentially in coming years. Business to Business transactions will represent the largest revenue. Online retailing will also enjoy a drastic growth. Areas expected to grow include financial services, travel, entertainment and groceries. And for those considering opening a virtual storefront, forthcoming technology and standards agreements will make it easier to create a site, to protect it against payment fraud, and to share information with suppliers and business partners.

## Chapter 2

### Literature Review

Electronic commerce or e-commerce consists primarily of the distributing, buying, selling, marketing, and servicing of products or services over electronic systems such as the Internet and other computer networks. The information technology industry might see it as an electronic business application aimed at commercial transactions. It can involve electronic funds transfer, supply chain management, e-marketing, online marketing, online transaction processing, electronic data interchange (EDI), automated inventory management systems, and automated data collection systems. It typically uses electronic communications technology such as the Internet, extranets, e-mail, e-books, databases, and mobile phones.



#### Meaning of E-commerce

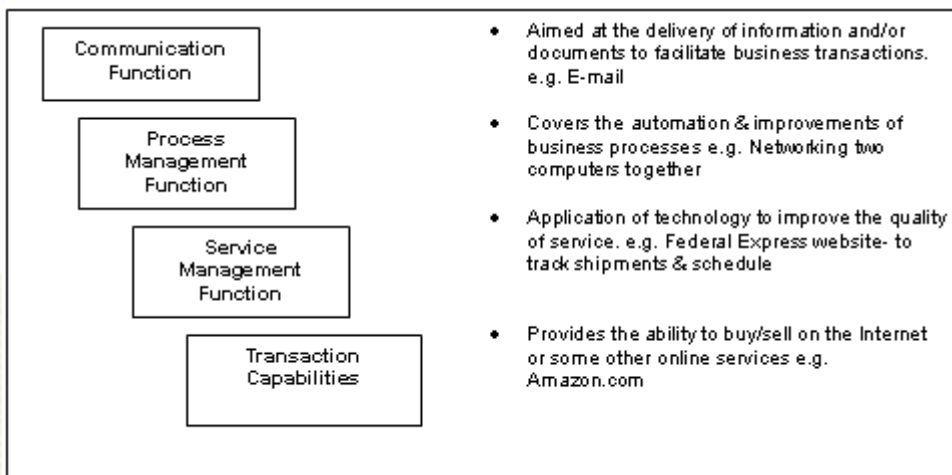
Fig 2.1: Meaning of E-Commerce

### 2.1 Functions of Electronic Commerce

The four functions of e-commerce are:

- Communication
- Process management
- Service management
- Transaction capabilities





**Fig 2.2: Functions of Electronic Commerce**

## 2.2 Distinct Categories of E-Commerce

Four distinct categories of electronic commerce can be identified as follows:

**Business-to-business (B2B):** Business-to-Business refers to the full spectrum of e-commerce that can occur between two organizations. Among other activities, B2B e-commerce includes purchasing and procurement, supplier management, inventory management, channel management, sales activities, payment management, and service and support. While we may be familiar with a few B2B pioneers- e.g., Chemdex ([www.chemdex.com](http://www.chemdex.com)), Fastparts ([www.fastparts.com](http://www.fastparts.com)), and FreeMarkets ([www.freemarkets.com](http://www.freemarkets.com)) - some other exciting new consortia are emerging.

**Business-to-Consumer (B2C):** Business-to-Consumer e-commerce refers to exchanges between businesses and consumers, e.g., Amazon.com, Yahoo.com and Schwab.com. Similar transactions that occur in business-to business e-commerce also take place in the business-to-consumer context. For instance, as with smaller business-to-business, transactions that relate to the back office of the customer (i.e., inventory management at the home) are often not tracked electronically. However, all customer-facing, or front office activities are typically tracked. These include sales activities, consumer search, frequently asked questions and service and support.

**Consumer-to-Consumer (C2C):** Consumer-to-Consumer exchanges involve transactions between and among consumers. These exchanges may or may not include third-party involvement as in the case of the auction-exchange eBay. Other activities include: classified ads (e.g., [www.numberoneclassifieds.com](http://www.numberoneclassifieds.com)), games ([www.heat.net](http://www.heat.net)), jobs

(www.monster.com), Web-based communication (www.icq.com), and personal services (e.g., Yahoo! Personals, webpersonals.com).

		Business originating from.....	
		Business	Consumers
And selling to ...	Business	B2B	C2B
	Consumers	B2C	C2C

**Fig 2.3: Categories of E-Commerce**

**Consumer-to-Business (C2B):** Consumers can band together to form and present themselves as a buyer group to businesses in a consumer-to-business relationship. These groups may be economically motivated as with the demand aggregator, Mercata.com, or socially oriented as with cause-related advocacy at voxcap.com.

#### 2.4 Significance of E-Commerce

The electronic market place participants are not limited only to digital product companies' e.g. publishing, software and information industries. The digital age and the digital revolution affect all by virtue of their process innovations:

Web-TV and digital television are going to affect TV news and entertainment programmes.

Changes in telecommunication will affect the way the information is received, product announcements, orders etc.

Phones, Fax machines, Copiers, PCs and Printers have become essential ingredients in doing business, so are E-mail, websites and integrated digital communication

Today's office business machines are not integrated (e.g. Faxed orders have to be typed in on computers), the much talked about convergence will drive all these equipment into one digital platform, whether it be a computer connected to the Internet and intranet, a new

kind of device capable of interacting with other devices, because that device will prove to be more efficient and productive.

## **2.5 Study on E-Commerce Industry in India**

To understand the situation in India, Nasscom conducted a survey on India's potential for e-Commerce industry with the following points of reference:

- (a) Understand and evaluate the present state of E-commerce industry and market in India.
- (b) Anticipate future potential of E-commerce industry and market in India.
- (c) Identify present and potential global trends that are expected to define new paradigms of E-commerce scenario.
- (d) Analyze current internet access and penetration in India and evaluate potential threats.
- (e) Suggest suitable strategies to enable Indian IT companies to address and capture a significant share of E-commerce market.
- (f) Increased proliferation of Internet.
- (g) Achieving a leadership position in E-commerce technologies and infrastructure market.
- (h) Developing state-of-the-art E-commerce enabling and access infrastructure in India.

Going by even the preliminary findings, it can be easily summarized that E-Business can indeed emerge as a major opportunity for India. This acquires twin connotations of E-commerce and E-Business transactions from local businesses and the huge opportunity for software exports to other countries by quickly joining the E-Business opportunities. This survey is the first of its kind which has taken into consideration India's twin assets - software industry and rapidly restructuring industry sector.

The scope of the study also included finding a level of awareness among corporate executives about E-commerce and its benefits; perceived importance of E-commerce as being integral to their corporate strategy framework; prospective volume of transactions expected to be carried out through E-commerce; opportunity for exports of E-commerce solutions and services.

Penetration analysis of online services based on the NASSCOM (1999) study indicated that penetration rates of internet and E-commerce transactions in India are expected as follows:

For Business-to-Business transactions, Indian industries are expected to reach online penetration of 2% by 2003 and 8% by 2008. This would be about one tenth of E-commerce penetration in Japanese industries during similar periods. It further expects that India's active internet population would spend close to 1.4% of its total regular household spending through internet purchases by 2003. Revenue streams would increasingly be aligned with emerging global model. Most of the revenue would come from commercial transactions and a small amount would come from advertisement revenues. It is expected that by 2003 Internet Business-to-Consumer transaction would constitute 80 percent of the revenue. The advertisement revenues would amount to about 5% of total advertisement money spent. It is predicted that 3-4 percent of E-commerce could be the result of a growing group of affluent Indians living overseas who are likely to make some form of purchase from Indian based Web sites either for their own personal consumption or as gifts for their kin in India.

Some of the preliminary findings on E-commerce and E-Business software exports potential are as follows: In the year 1999-2000, Internet and E-commerce related software and services exports from India brought US \$ 340 million out of an estimated US \$ 3.9 billion software and services exports. Supply Chain Management optimization is one of the strongest drivers of global E-commerce solutions market, as it spurs Business-to-Business transactions. More than 68% of Indian software houses have informed of strong expertise in Supply Chain and Distribution Management solutions. Almost 32% of IT company respondents have identified web based consumer businesses as a major opportunity area, with expected paybacks beginning in 3-4 years. Some of the promising areas of E-commerce services are: legacy application integration; Internet application integration; EDI, Migration to web based models; new IT frameworks, integration with business strategy and strategic IT consulting (OECD, 1999).

With corporate planning to revive IT spending after Y2K problem, E-commerce solutions have emerged as a major technological and business opportunity for Indian software houses. However, there is a concern over present state of affairs with regard to facilitating and supporting E-commerce in India because of the poor infrastructure. However, the software industry in India as well as user industries are putting together their resources for adopting E-Business strategies.

In spite of passing of the I.T. bill, the framework and infrastructure in India still is not conducive enough for proliferation of E-Business. More than 88% corporate executives expressed keen awareness of increasing adoption of E-commerce and its potential benefits.

More than 41% of corporate executive said that E-commerce transactions are integral to their corporate plans. Among the executives responding, nearly 85% were industries which did not have direct or frequent contact with end-consumers, but they can see that in the future they may have to.

About 18% of corporations already have some form of E-commerce infrastructure in place. These have been facilitated through upgrade of existing IT systems or fresh installations configured for E-commerce transactions. The most commonly found business practice is to establish extranets or EDI (Business-to-Business) infrastructure for initial or learning period. This is subsequently upgraded to internet based access mechanisms for customers. More than 90% of the executives cited perceived efficiency in Supply Chain Management as motive for Business-to-Business E-commerce, and enhanced Customer Services (Customer Relationship Management) for Business-to-Consumer transactions. The other reported benefits included moving towards Justin-Time management. Almost 78% of respondents concurred that for them technology is not a major concern, nor is the required budgetary resources. However, the high cost of effecting such transactions and inadequate services with regards to telecommunication in India along with bandwidth were cited as major impediments. About 48% of respondents said that given the right framework and cost-effective infrastructure, they would like to move towards adopting E-commerce at the earliest. Some of the key industries that have high potential for early adoption of E-commerce are: Financial (Stock Exchanges and Banks), Automobiles, Retail, Travel, IT and Manufacturing. However, in India presently there are only two hubs of EDI based transactions which are in Pune and Gurgaon.

## **2.6 E-Business Initiatives**

There is a clear need of government action and international agreements on E-commerce issues. It is generally recognized that there is a need for simple, transparent and predictable legal environment for E-commerce on a national and international level and that Governments should avoid undue restrictions on E-commerce in order to avoid competitive distortion. To develop such global framework for E-commerce, a large number of international and regional bodies have been working notably amongst them being OECD, WTO, WIPO, NCITRAL and ITU. A comprehensive document reporting on international and regional Bodies and their activities and initiatives in E-commerce was prepared (Jan. 1999) by OECD Secretariat for OECD Ministerial Conference, which was held in Ottawa in 1998. "A Borderless World: Releasing the Potential of Global Electronic Commerce" (OECD, 1999) indicated the potential for global business for many countries. Second half of

1999 saw commitments of some of the big companies to move their multi-billion dollar purchasing operations on to the Internet. With many Fortune 500 Companies moving their supply-chain transactions involving purchase and sales of goods and services on to the Internet has created a real necessity among those who do not have E-commerce presence to move in quickly or be left behind. Now major multinationals such as Intel, IBM, Cisco, 3Com, Dell and many others have had E-commerce models for 3-5 years. E-commerce between business and consumers (B2C) which means direct purchase of products on the Internet, for example, books, automobiles, music, entertainment, software, PCs and many other products has also picked-up significantly. E-commerce is one area where market forecasts made in 1996-97 turned out to be much less than actual performance. Projections have been revised subsequently by most of the consultancy firms. Forrester (IEEE, 1999) forecasts that worldwide Internet Commerce will reach between \$ 1.4 and \$ 3.2 trillion in 2003, up from a range of \$ 55 billion to \$ 80 billion in 1998. This growth will happens as the world's largest economies of India and China would completely come online by 2004.

## **2.7 Opportunities for India**

At macro level, if one looks at the opportunities for India, outsourcing software and IT services from USA and other advanced countries have emerged as one of the means to reduce the cost of E-commerce today. In this regard, India has emerged as a preferred destination. Therefore, Indian Software Export Industry could target for a significant share of global e-Business/E-commerce market in the years to come. In the emerging global digital economy, it would be necessary for Indian firms to follow the same online B2B practices as done by others in the world to be a stakeholder. E-commerce would give opportunity to small and medium Indian enterprises to project their capability globally and thus participate more proactively in such ventures. Many traditional sectors such as handicrafts, textiles, art, and herbal medicines which have failed in the past to tap the global markets due to lack of marketing resources, should find an ideal medium in internet. Indian cultural heritage, monuments, temples, and classical music could be made known widely to the world at a very low cost of marketing and could be further leveraged in enhancing global tourism of which India gets only 2 percent. E-Commerce is one IT tool that could do wonders to the Indian economy in many fields.

In NASSCOM study, India has the potential to create E-business worth \$1.5 billion by 2004 and around \$10 billion by 2008. E-commerce is a fast moving area internationally in terms of opportunities and the technologies. It is predominantly led by industry and user sector with

government playing a catalytic role. Government by providing proactive policies and environment and facilitating support and critical inputs for growth can do wonders for E-commerce in and beyond India. In the last one year, significant progress has been made in the country in this regard. New Telecom Policy 1999, new ISP policy and certain specific policies have emerged out of acceptance of Part I of the Report of National Task Force on IT and Software Development. They need to be implemented aggressively and without delay. The drive to set-up world class information infrastructure at most competitive price has to be accelerated. The following noticeable progress have been made in India as of July 2001:

(i) Since announcement of Internet Policy in November 98, 315 licenses have been issued to ISPs by DoT. With the availability of a large number of ISPs, it is expected that market forces will govern the pricing and prices will come down further.

(ii) National Internet backbone is being established which would provide connectivity to Government as well as private ISPs. TRAI has fixed the upper limit for Internet tariff, ISPs are revising tariffs periodically at a very economic, competitive and attractive prices to mobilize the customers.

(iii) VSNL, STPI and others are providing international bandwidth from multiple locations. STPI with the single window facilities including high speed datacom services at 17 locations countrywide has multiple sites and are enabling more than 1200 companies to set up Internet operations.

(iv) NTP-99 has given significant importance to online E-commerce. It is expected that information for E-commerce and B-commerce will be passed seamlessly. The requirement to develop adequate bandwidth of the order of 10Gb on national routes and even terabits on certain congested important national routes will be immediately addressed to so that growth of IT as well as E-Commerce will not be hampered.

## **2.8 Development of Suitable Legal Framework for E-commerce**

Information Technology Bill (Government of India, 1999) has been passed by both Houses of Parliament. The Bill provides legal recognition of electronic records and purposes including its authentication through digital signature. This Bill has enabled the conclusion of contracts and the creation of rights and obligations through the electronic media. It has proposed to provide a legal implementation structure. It has also proposed to amend Indian Penal code and Indian Evidence Act to provide for necessary changes in the various provisions which

deals with offences relating to documents and paper based transactions; amendments to Section 2 of the Banker's Book Evidence Act and RBI Act, 1934 will include safeguards for E-commerce transactions. The IT Bill is also aimed at prevention of computer crimes.

As the Bill comes into effect, corporate and individuals will be able to rightfully carry on trade through electronic medium without the fear of losing rights and obligations. This will give E-commerce in India a much-needed boost. As the communication network expands and computerization gathers momentum, the scope of E-commerce will expand. The need for the banking and financial system to adjust to the changing circumstances has become urgent. In India, E-commerce in the financial sector is catching up. The pre-requisites for the E-commerce in the financial sector are: total branch computerization; inter branch connectivity; inter bank connectivity; safeguards to ensure accountability of the transactions put through computers and appropriate legal framework. In the advanced countries, owing to the existence of a well developed telecommunications infrastructure, the accessibility of the internet connection is expeditious, even when a large number of customers want to browse or access a particular site. But in India the lines get very often choked and it is not uncommon that one may be compelled to wait for a long time to get access to a particular website. So to get E-commerce to be widely accepted as a reliable means of conducting business a state-of-the-art communications network is needed. The INFINET commissioned by RBI recently is major step in reducing delays and increasing faster communications in the financial sector. The INFINET plays a key role in inter-city Electronic Clearing Service (ECS), Electronic Funds Transfer (EFT), Centralized Funds Management (CFMS), Centralized Funds Enquiry System (CFES) and the proposed Real time Gross Settlement (RTGS) system.

The practice of payment through Internet is expected to pick up in the near future. Besides Credit Card, Electronic Checks will be in use with multiple vendors and banks/financial institutions. With WTO Commitments to encourage E-commerce in the Third World countries, Indian Copyright Act, 1957 (amended in 1994) has been broadly in conformity.

Likewise certain amendments to Indian Patent Act in the form of the Patents Amendment Bill has also been introduced in the Parliament. For protection of intellectual property rights, a Bill has also been introduced in the Parliament. These are under the consideration of the Parliament. A knowledge base in IPR has been created and IPR Cell set up in MIT provides facilitating support. Worldwide new developments on IPR in the context of emerging digital economy are followed and proactive actions are taken. In line with WIPO Treaties (WCT, WPPT, Digital Agenda), a project is underway on Electronic Copyright Management System



to develop Image Watermarking Technology. To accelerate E-commerce in Internet, it may be necessary to take followup action on WIPO Copyright Treaty, Technology Development and Pilot Projects on E-commerce.

## **2.9 Promote E-Commerce Enterprises**

Promoting innovations, supporting entrepreneurs with brilliant & commercial ideas, providing business support, create incubation centers are some of the areas where government with the participation of industry and other sectors have been playing a catalytic and facilitating role. This may need to be further intensified. Some of the recent initiatives taken include:

- (i) MIT in association with SIDBI, IDBI and software industry has set up a corpus of Rs 100 crore recently, named as National Venture Fund for Software and Information Technology Industry (NFSIT). NFSIT is targeted to provide venture capital to start up software professional and IT units in small scale sector.
- (ii) To provide help to small enterprises, STPI has recently set up business support centre at San Jose, USA.
- (iii) In various software technology parks as well as other parks promoted by State Government, Incubation Centers and plug and play facilities are being set up.
- (iv) To release the Indian venture creation and incubation engines, procedures and policies are being simplified.

## **2.10 Security for E-Commerce**

Following phenomenal expansion of Internet and its application in E-Commerce, there is a tremendous rise in economic transactions using this medium. However, since Internet is evolving as a means to provide easy interconnectivity of networks for information exchange as freely as possible, the systems are not designed keeping the requirements of information security. Aspects like privacy, integrity, authenticity and non-repudiation which are essential elements for a commercial transaction, are not taken care of in its elemental form. There are frequent reports of hacking and other kinds of abuse of the network owing to such deficiencies. To make this medium suitable for E-commerce, significant work on a continuous basis needs to be taken up and government is expected to take keen interest in this area of work.

Encryption being the key element to ensure security in a network communication, the government could consider extending the present restriction of 40 bit encryption level. This will necessitate an upgradation of facilities with the national security agencies. Specific network security products like Intruder Detection System and Firewall are being developed in the country. Though, many such products are available internationally, national capability in this area is required to ensure that no trap-doors are available giving rise to the lack of confidence on the part of business houses. There would be, in addition, indigenous products similar to Secure Electronic Transaction (SET) and Secure Socket Layer (SSL). Besides expertise and capability building, efforts are needed to promote E-commerce as a wealth building enterprise which would increase GNP. The government is ensuring setting up of Public Key Infrastructure and Certification Authority (CA) by the end of the year 2001 following the passage of IT Bill so that interested E-commerce players can have secure transactions as required.

### **2.11 E-Commerce and Standards**

With a view to ensure global seamless connectivity for E-commerce, as the demand picks up, the need for such standards have been felt more in 2001 than in any other year. The general perception is that it should be private sector, market led approach to open standards supported by Government. In this regard, Ziff Davis Global Information Infrastructure (GII) Group have been working for a standard for Internet based e-commerce involving a broad alliance of leading global corporations, institutions and individuals. NIST, USA is providing effective support for industry led standards (through alliance with Internet Engineering Task Force). These efforts include (i) building standards road-maps with private sector stakeholders; (ii) providing technical assistance to industry in the development and harmonization of open standards; (iii) establishing neutral test beds and developing reference implementations with technical experts from the private sector; (iv) developing test methods and infrastructures for measurement and demonstration and (v) contributing to implementation guidelines set by ITU, ISO, IEC, UN, CEFACT who have been working in this area.

It is necessary to set up a dedicated team in the country which would follow these international trends and actively participate in these international standards so that capabilities and interest of India are taken care of. If India is to become a major stake holder in E-commerce, Indian Industry needs full commitment from the government in this area. Real benefits of E-commerce will come to India if Indian industry leap-frogs in using these tools to re-engineer its operations aiming at gaining competitive advantage. USA and Europe

through support of their respective governments have taken such initiatives. Specifically under the Fifth Framework Program of European Commission, one of the key actions is related to New Methods of Work and Electronic Commerce. In USA, industry, government and Small Business Electronic Commerce Working Group has been created to serve SMEs. Collaborative programs are being developed to help SMEs benefit from electronic commerce through increased training and education. To take lead in E-commerce, it is necessary to develop such programs. Various organizations of MIT could work with different leading industry associations to develop such awareness building and education programs. A special group could be set-up to develop this. A proactive role by WTO, WIPO and other multilateral organizations would put pressure on all countries to quickly gear-up for E-commerce culture. However, a major concern is the proposed zero-duty issue on E-commerce, if it is considered under GATT. Developing countries need to examine the consequences carefully and evaluate possible option of its classification under GATT. For certain international E-commerce, one needs to know if E-commerce transactions should be classified as cross-border trade or consumption abroad. Likewise, a considered view on domestic taxation issues needs to be taken.

## Chapter 3

### Research Methodology

#### 3.1 Introduction

In the era of economic liberalisation and increased competition, Indian industry is attempting to harness technology to succeed in achieving its business objectives. In doing so, it has focused on balancing the benefits provided by new technologies with the associated risks in having one's business depend on it. This has resulted in a race to be the first to be second in implementing new technologies with most organisations waiting for their peers to explore new areas before venturing into them.

The basic elements required for successful business engagement are changing rapidly. Pressures to economise, speed up operations, and supply superior service are constant. One of the most visible, challenging, exciting, and ill-understood means of responding to these pressures is the use of a number of electronic channels, particularly the Internet and its offshoots.

#### 3.2 Objective

This study is a research into the use of e-commerce by companies. This study is conducted to evaluate the perceptions, status, and triggers on the use of e-commerce in Indian companies. This survey has been conducted simultaneously in a number of countries in the Asia-Pacific region. The results are expected to contribute significantly towards the current thinking regarding e-commerce in this region. The results presented in this report pertain to the Indian survey.

The survey sample consisted of more than 110 Indian companies, 69 of which had a minimum turnover of INR 1 billion, and 17 with an annual turnover above INR 10 billion. We chose the largest companies in the country because they were most likely to have the greatest resources to commit to e-commerce and potentially the largest benefits to reap. They are also the ones with, arguably, the greatest cultural and organisational obstacles to overcome in order to do so.

The research carried out by KPMG India and that took place during late-1998 was referred to while carrying out this study. Respondents included CEOs, CFOs, CIOs, and Heads of Marketing at the companies surveyed.

### **3.3 Survey Methodology**

The research study was conducted both Primary as well extensive Desk Research for this report. Secondary data sources were used to gain a comprehensive and in-depth understanding of the E-Commerce market in India. Inputs related to the internet users in India, and segment-wise users of Internet in India etc. have been taken from *I Cube 2006*, a syndicated research product of the e technology group at IMRB International. These annual syndicated set of reports on the Internet market in India are based on a large scale primary survey covering 65,000 individuals across 26 cities in India.

Information from various published resources and other research bodies were also used to perform a data validation check and also to reach at the final numbers. Primary Research was conducted using in-depth interviews with large and medium-sized B2C and C2C E-Commerce players. A detailed questionnaire was administered to the players from various verticals of the E-Commerce Industry.

Respondents were required to classify their organisations as belonging to:

- \* Manufacturing (MFG),
- \* Financial Services (FS),
- \* Computers & Communications (C&C), and
- \* Other Industries.

#### **3.3.1 Definitions**

A very common question in this context is: “What exactly is e-commerce and what is the impact of the Internet?” The Internet and its related technologies (Intranet, and Extranet) are fast gaining popularity worldwide as like other technologies for electronic communication between organisations (like EDI and Groupware). E-commerce is a generic term to describe the way organisations trade electronically. It uses a group of technologies to communicate with customers or other companies, to carry out information gathering, or to conduct business

transactions. Although the Internet is the best known of these, others include Intranet, EDI, and smart cards.

For the purposes of this survey, e-commerce was defined as computer-to-computer, individual-to-computer, or computer-to-individual business relationships enabling an exchange of information or value. Hence, the survey also sought to explore the use of e-commerce through channels other than the Internet.

The main objective involved an attempt to determine the current awareness of, usage levels, and initiatives undertaken in the area of e-commerce. Identification of perceived barriers to adopting e-commerce by respondents was also a major objective. This yields a starting point to address issues related to its adoption.

The respondents consisted of people from diverse sectors of industry. The survey also aimed to identify the benefits accrued by those organisations that have already implemented such technology in one form or the other. This, along with the top potential benefits expected by the respondents, gives an indication of the thrust areas for those aiming to promote e-commerce in the country.

### **3.4 E-Commerce & Taxation**

#### **Key Considerations**

The growth of e-commerce has resulted in exciting opportunities becoming available for people to adopt this medium as an avenue to market products and services globally. The potential uses of e-commerce have created implication for governments and the sovereign of their tax systems.

Some of the organisations that have taken note of this development and constituted study groups and guidelines to tackle transactions undertaken include:

- \* The US treasury has released a guideline on Selected Tax Policy Implications of Global Electronic Commerce.
  
- \* The OECD has produced a report on Electronic Commerce Opportunities and Challenges For Government.

\* The European Commission has also released a report constituted by a high-level group of experts on e-commerce.

There is an unprecedented level of international co-operation over such a short span of time on the challenges posed by e-commerce and this, in fact, has brought in seriousness within governments and tax authorities to tackle the tax implications of e-commerce transactions.

National governments have a disadvantage of not being able to dictate domestic policies in relation to e-commerce. Nevertheless, this issue will be addressed in the near future as e-commerce is gaining momentum and will pose tremendous challenges to the existing systems of taxation. Some of the tax issues that could arise because of e-commerce would be as follows:

**Personal Tax:** Individuals could escape the tax net by not declaring the income generated by providing services via the Internet.

**Residence:** People using the Internet can effectively live and work in a number of jurisdictions. A similar situation is possible in the case of corporates.

**E-Commerce:** Companies can transfer profits from high tax jurisdictions to low tax jurisdictions, or adjust their income and expenses with branches or subsidiaries in the low tax jurisdictions via Internet transactions.

**Tax on Goods & Services:** By routing transactions through the Internet, it would be difficult to subject goods and services to tax. The jurisdiction where the sale or service has happened could become a matter of interpretation.

**Permanent Establishment (PE):** The concept of PE is important in determining a company's business profits and tax liability in a particular country. However, business via Internet challenges the whole concept of a PE and, therefore, the question of how the business income of an enterprise is determined could become a debatable issue.

Electronic-commerce is, undoubtedly, going to pose challenges to countries as their present tax system is based on tangible information reporting and paper trials. Countries will be forced to re-think the method of taxation and adopt means to recognise transactions in an equitable manner keeping in mind the existing guidelines issued by some Western countries

for taxing e-commerce transactions.

## Chapter 4

### Data Analysis

#### 4.1 Usage of E-Commerce in India – a Demand Side perspective

Since the introduction of E-Commerce, there have been debates on future of its prospects in India. *Would it be as successful as it is in US or is it a mirage that attracts many but offers nothing worthwhile?* True enough; the players in the online marketplace are still struggling to settle with a successful business model. Most of them are settling for Advertising Model, hoping it would help them breakeven. However, to grow beyond, the majority of the revenue needs to be generated from customers. Customers on the other hand, have become choice-spoilt. There is no dearth of offerings for them. They skip from one seller to other in search of best deals in the standardized products market.

In this section, we would,

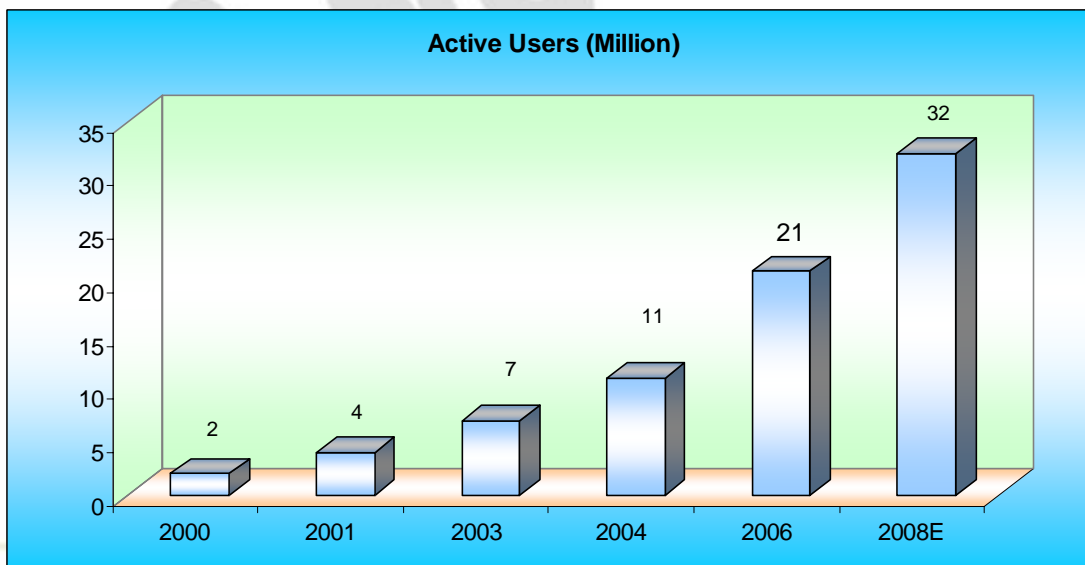
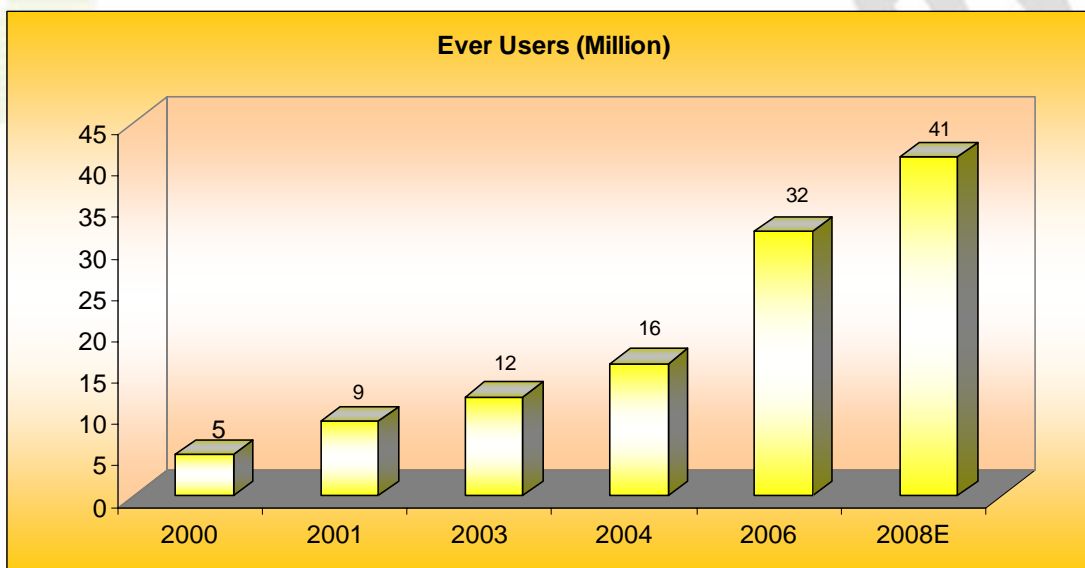
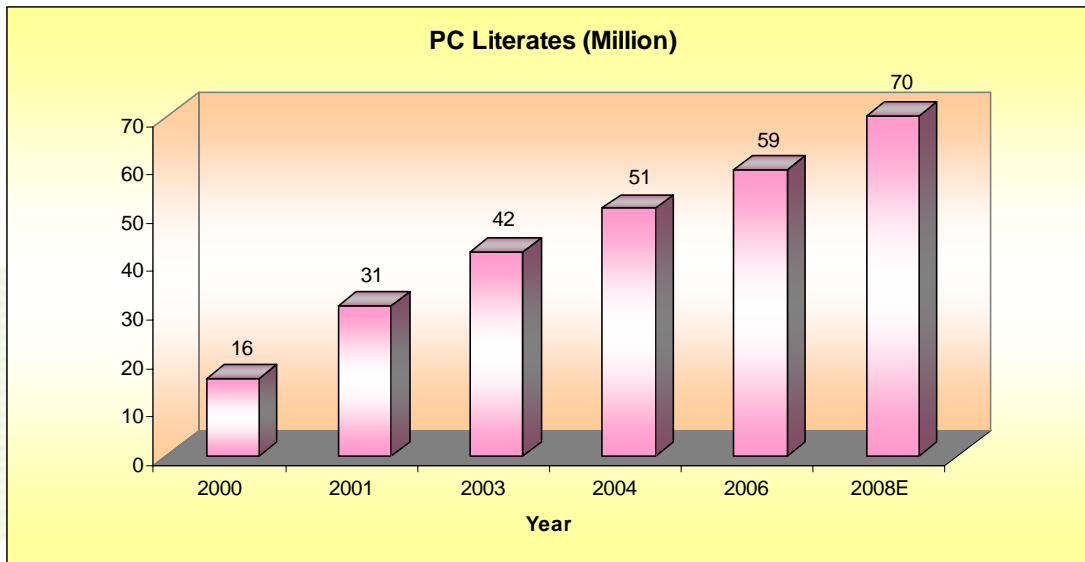
- Focus on the usage of E-Commerce in India, and
- Understand the triggers and barriers for the online marketplace

#### 4.2 Usage of E-Commerce

According to the survey conducted among the Industry players, the E-Commerce Industry in India was worth **INR 7080 crores** at the end of 2006-07. Is it big enough? How much is it expected to grow?

The adoption and usage of E-Commerce in the country is a function of the overall environment for Internet usage in a country. To correctly understand the likely growth path for E-Commerce in India it is imperative to understand the internet ecosystem in the country. Some of the key variables that need to be understood are the proportion of computer literates, internet penetration, frequency of access to the internet, purpose of internet access etc. A correct mapping of these would help in understanding the overall framework of E-Commerce in the country.





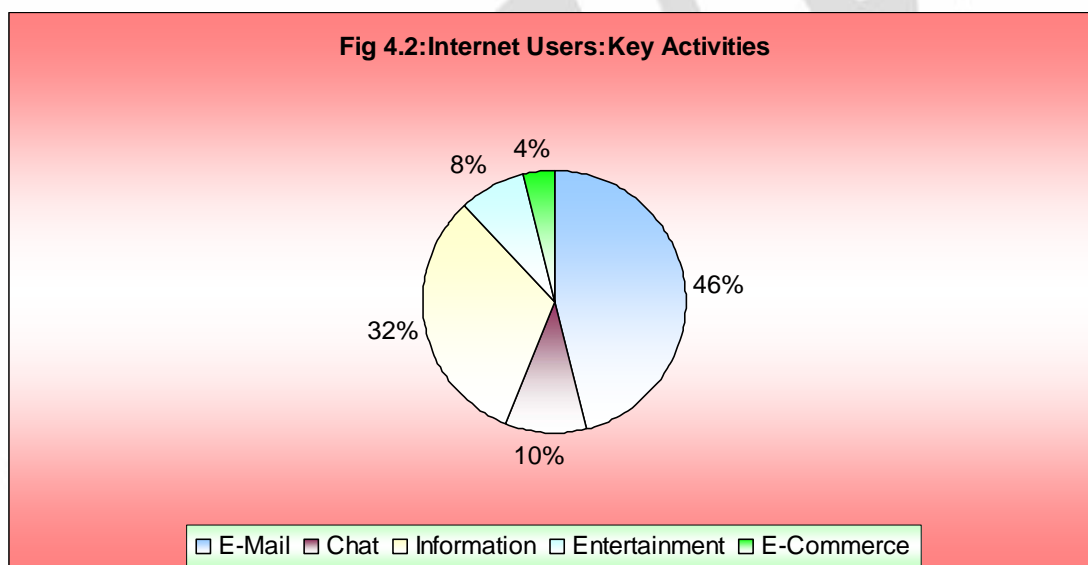
Source: I-Cube 2006 Syndicated Research of e-Technology Group@IMRB, March 2006

**Figure 4.1: Frame-work of E-Commerce in the Country**

The PC literate population is on a fast growth curve having grown 100% in 2006 over 2004. Though in India overall penetration is still low the important factor is that a critical mass of users is shaping up which will fuel rapid growth over the next 3-4 years.

A Claimed or Ever Internet User is defined as one who has ever accessed Internet. A subset of Claimed Internet users, Active Internet Users are defined as those who have accessed Internet at least once in the last one month. They are the regular users of Internet and are aware of the recent trends and applications emerging on the Internet. The population of Active Internet Users was 21 million in March 2006.

As these Internet Users mature with respect to exposure and awareness of internet, they tend to spend more time online; access internet more frequently and surf non-communication based applications and advanced online applications like gaming, E-Commerce, etc. However, as it is evident from the charts below, E-Commerce is still not the key driver of the internet. Internet usage in the country is still driven by email and information search.



**Fig 4.2: Internet Users: Key Activities**

However, the interesting part is that out of the 13.2 million internet users across 26 cities covered in I-Cube 2006, (*Syndicated Research of e technology group @IMRB International*), 14.2% use the internet to buy travel tickets; 5.5% people do online shopping especially products like Books, Flowers, Gifts etc. and 5% people deal in stocks and shares through the internet. Though the percentage contribution of E-Commerce is almost same over the years, however, the number of Internet users using E-Commerce is growing rapidly.

Thus, E-Commerce is surely being adopted by the Internet users as a way to shop. They are buying a variety of products online and visiting various websites to buy products from. Given the rate of growth in E-Commerce users, size of the E-commerce industry is expected to reach **INR 9210 crores** at the end of 2007-08, a big jump of 30% over the current industry size.

### 4.3 Triggers and Barriers for the E-Commerce market in India

In addition to the industry size, it is imperative to understand the reasons behind the growth and reasons hampering the growth E-Commerce industry in the country. This section elaborates the triggers and barriers that impact the adoption of E-Commerce by the Internet users we would start by enlisting the triggers which motivate the online shoppers to buy products online.

Top 6 reasons given by shoppers in buying through Internet	Rank
Saves time and efforts	1
Convenience of shopping at home	2
Wide variety / range of products are available	3
Good discounts / lower prices	4
Get detailed information of the product	5
You can compare various models / brands	6

*Source: I-Cube 2006, a syndicated product of IMRB International*

**Table 4.1: Triggers in buying through internet**

As evident from the table above, time saving is the major reason that drives Internet users to shop online. It is followed by convenience of anyplace, anytime shopping online.

Online stores do not have space constraints, thus, a wide variety of products can be put for display. Companies can display whole range of products being offered by them. This further enables the buyers to choose from a variety of models after comparing the looks, features, prices of the products on display.

To attract customers to shop online, eMarketers are offering great deals and discounts to the customers. This is facilitated by elimination of maintenance, real-estate cost of the seller, selling its products online.

An insight into some of the problems stated by customers while buying through Internet will help us to have a closer look at the issues which need to be addressed by the online community.

Top 6 concerns while buying online	Rank
Not sure of product quality	1
Cannot bargain/Negotiate	2
Not sure of security of transactions /Credit card misuse	3
Need to touch and feel the product	4
Significant discounts are not there	5
Have to wait for delivery	6

*Source: I-Cube 2006, a syndicated product of IMRB International*

**Table 4.2: Barriers in buying through Internet**

Absence of touch-feel-try creates concerns over the quality of the product on offer. Another roadblock in the way of E-Commerce is lack of interactivity so as to allow for negotiations between the buyer and sellers. In addition to above, the security of online payments is a major issue requiring immediate attention of the eMarketers. Increasing rate of cyber crimes has made customer apprehensive of revealing their credit card details and bank details online.

Moreover, the duration of selecting, buying and paying for an online product may not take more than 15 minutes; however, delivery of the product to customer's doorstep may take about 1-3 weeks.

Further more our past observation has been that in India shopping is an experience itself. Consumers look forward to it as an opportunity to get out of their homes and interact with other people. The recent growth in the malls and the hypermarkets only corroborate this fact. Thus, Ecommerce has to bank on the convenience and discount platform as there is no way that they can compete with the offline platforms on the experience that they provide.

There is no doubt that Internet shopping has a number of benefits to offer. With changing lifestyles, E-Commerce is surely the most appealing and convenient means of shopping. However, the grave issues surrounding the market do not make it the “choice” of most of the Internet users. Addressing the above specified issues, thus, has become critical to expand beyond the current user base.

#### 4.4 Categorization of Internet Users

In I-Cube 2006, a survey done among Internet Users, details of products they looked information for and the products bought by them online in last 6 months were captured along with the details of products they are likely to look information for and the products they are likely to purchase. On analysis of the data, following trends were observed:

Category	Sub-Category	Looked for Information	Will look for Information	Bought in last 6 months	Will buy in future
Travel	Railway Tickets	31.62%	18.06%	8.25%	15.76%
	Air Tickets	16.16%	7.13%	2.39%	5.21%
	Hotel Reservation	5.41%	1.46%	0.26%	0.99%
	<b>TOTAL</b>	<b>53.19%</b>	<b>26.65%</b>	<b>10.90%</b>	<b>21.96%</b>
Digital Downloads	Ringtone Download	18.58%	11.04%	2.11%	8.11%
	Games Download	13.55%	8.54%	1.78%	5.85%
	Music/Video Download	11.54%	5.96%	1.42%	4.31%
	Picture Messages/Wallpaper Download	8.28%	5.14%	0.34%	3.37%
	<b>TOTAL</b>	<b>51.95%</b>	<b>30.68%</b>	<b>5.65%</b>	<b>21.64%</b>
Classifieds	Matrimonial Services	5.53%	2.16%	0.69%	1.34%
	Jobs	7.77%	3.45%	0.95%	2.09%
	<b>TOTAL</b>	<b>13.30%</b>	<b>5.61%</b>	<b>1.64%</b>	<b>3.43%</b>
e-Tailing	Food, Home Provision & Grocery	8.04%	2.89%	0.32%	1.53%
	Automobile(Car/Motorcycle)	10.68%	4.27%	0.26%	2.08%
	Home Electronics (Audio System, TV, Cell Phone)	9.89%	4.24%	0.49%	2.05%
	Home Appliances (AC, Fridge, Washing M/c etc.)	7.43%	2.80%	0.18%	1.00%
	Computer/Notebook/Laptop	10.13%	4.74%	0.37%	2.51%
	Computer Peripherals (Printer, Mouse etc.)	6.76%	2.99%	0.35%	1.56%
	Computer Software	10.02%	5.77%	0.47%	2.84%
	CDs/MP3/Video Cassettes/DVD	12.76%	6.70%	0.53%	4.19%
	Books	14.41%	9.05%	1.13%	6.64%
	Cinema Ticket	7.73%	3.06%	0.90%	2.29%
	Clothes/Shoes etc.	9.00%	3.37%	0.70%	2.31%
	Jewellery/Watches etc.	5.82%	2.68%	0.18%	1.68%
	Cosmetic/Perfumes etc.	3.54%	1.11%	0.05%	0.61%
	Flowers	2.80%	0.57%	0.19%	0.36%
	Toys/Games for Kids	3.58%	1.01%	0.16%	0.30%
Sweets/Dry Fruits	1.89%	0.11%	0.06%	0.04%	
<b>TOTAL</b>	<b>124.48%</b>	<b>55.36%</b>	<b>6.34%</b>	<b>31.99%</b>	
Paid Content Subscription	Paid Content Subscription: news; videos; reports	2.89%	1.01%	0.08%	0.65%
	<b>TOTAL</b>	<b>2.89%</b>	<b>1.01%</b>	<b>0.08%</b>	<b>0.65%</b>

Table 4.3: Category of Internet Users

According to the data, of total **21 Million Active Internet Users** in March 2006 (*Source: I-Cube 2006*), around 53% have had looked for information on travel while 27% are likely to look for information on travel services online. Though, only 10% of the Internet Users have booked Air tickets rail tickets or hotel rooms in last six months, only, 22% are likely to avail these services in the near future.

Except for Travel, percentage users looking for information and buying online is pretty low. For instance, only 13% of the total Internet users have had looked for information on online classifieds, however, only 2% of the total Internet Users have paid for availing any of the services online. In future, only 3.4% of the total Internet Users interviewed is expected to avail paid classifieds service online.

Based on their behavior towards buying online, Internet users can be classified into the following four categories:

USER CATERGORY	CHARACTORISTICS
<b>Conventional</b>	People who shop in Brick and Mortar stores
<b>Looked for Information (LFIs)</b>	People who browse for information but do not shop
<b>Apprehensive</b>	People who will not shop on the net unless their concerns are addressed
<b>Enthusiasts</b>	People who are willing to try out

**Table 4.4 Classification of Internet Users**

Though majority of Internet Users look for information on various product categories online, a relatively smaller portion of them actually buy online.

Some of the reasons to explain this behavior are:

- 1) Apprehensions with paying online
- 2) Lack of touch-feel-try
- 3) Concern with authenticity of seller and products sold online
- 4) Time lag between placing order and delivery of the product

The sequence in which the above-mentioned category of Internet Users can be targeted by the online players:

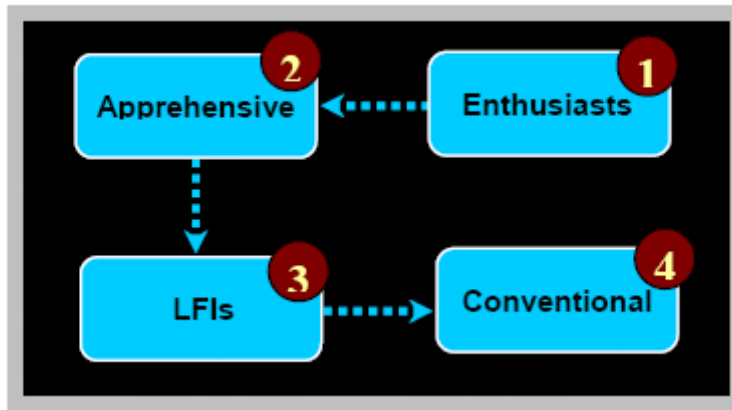


Fig 4.3: Segmentation of Internet Users based on probability of converting online

It has been observed that most of the Online Shoppers start their e-Shopping journey with buying Air/ Railway Tickets. This might be because the service provided in case of Travel, especially ticketing is undifferentiated with the place of buying the tickets. The buyer is ensured that he would get the same service as his co-passenger who has bought his tickets from the physical counters.

However, the need for ‘touch-feel-try’ might be important for product categories like Apparels, Jewelry. Product categories like Electronics, Mobile phones fall in the zone of ‘high-risk’ products, for which there are many ‘LFIs’ and very few ‘Enthusiasts’. The above-mentioned factors make ‘Travel’ more attractive to the Enthusiasts than other product categories. As a result, the Online Travel Industry is growing at a faster pace than other online categories, we are, therefore, dividing the rest of the report into two segments:

1. **Online Travel Industry**, comprising Air, Rail, Hotel Reservations; Car Rentals, Tour Packages
2. **Online Non-Travel Industry**, comprising eTailing, Digital Downloads, Classifieds and Paid Content Subscription

## Chapter 5

### Research Findings

#### 5.1 E-COMMERCE IN INDIA IN 2008

E-Commerce has paved a way for the economy to rise in its standard of living which has ultimately resulted in huge revenues and introduction of new products and techniques.

During the year 2000-2001, two major Industry Associations produced separate reports on e-commerce in India. Both the reports came out around the same time, namely June-July 2001. One was prepared by the National Committee on E-Commerce set up the Confederation of Indian Industry (CII), while the other was commissioned by the NASSCOM and prepared by the Boston Consulting Group. Both the reports are optimistic about the growth of e-commerce in India. The Confederation of Indian Industry (CII) report estimates the volume of e-commerce to grow to Rs 500 billion (US\$ 10.6 billion) in the year 2003, out of which B2B will be Rs 420 billion (US\$ 9 billion) and B2C will be Rs 80 billion (US\$ 1.7 billion) (CII, 2001). The *NASSCOM-BCG Report*, on the other hand, estimates for the same year that the total volume of e-commerce will be Rs 1,950 billion (US\$ 41.5 billion), out of which Rs 1,920 billion (US\$ 41 billion) will be on account of B2B and Rs 3 billion (US\$ 64 million) will be on account of B2C (NASSCOM and BCG, 2001). E-commerce volume for the year is estimated to be Rs 150-200 billion (US\$ 3.2-4.2 billion) (NASSCOM and BCG, 2001).

In addition to the above data **ICRA**<sup>2</sup> has made a comparison study for the year 2000 and 2005 in analyzing the e-commerce activities in India. It has predicted a more than 50 fold increase in e-commerce business in India. E-commerce would take a larger hold of service oriented industries such as Banking, Leisure and Travel and Education.

E-Commerce activities	2000	2005
(i) E-commerce business in India	4.70 billion	252.00 billion
(ii) Online ad-spend	70.00 million	860.00 million
(iii) B2B E-commerce turnover	4.10 billion	232.80 billion
(iv) B2C (Business to Consumer) turnover	0.50 billion	18.80 billion

Sources as per ICRA

Source: ICRA- Credit Rating Agency



A Research study has been conducted by the **IOAI**<sup>1</sup> to analyse the total value of E-commerce activities within India. E-commerce activities have exceeded to INR 5.7 billion during 2004-05, and it is estimated to cross the 10 billion marks in future.

**Some research highlights:**

- **The E-commerce industry:** Rs 5.7 billion worth of E-commerce conducted online in 2004-2005 to grow to Rs 230 billion by 2006-2007, an estimated 300 per cent plus growth.
- **The E-commerce site visitor:** 55 per cent of visitors to ecommerce sites have adopted the Internet as a shopping medium.
- **The 'Regular Online Shopper':** Of the 55 per cent of online shoppers [Base 1716] - 87 per cent [1493] of shoppers have shopped more than once and have been termed 'as regular shoppers'. They form the 'base' for this report of users who have transacted online to buy products and services 'more than once' .
- **Age and gender:** 25 per cent of regular shoppers are in the 18-25 age group, 46 per cent in the 26-35 age group and 18 per cent in the 36-45 age group. 85 per cent of online shoppers are male even a 15 per cent female audience represents a 15 million strong market by 2007-2008 (IOAI Estimate: 100 million Internet users by 2007-08.)
- **Education and profession:** 83 per cent of the user base is educated with a Bachelor or Post Graduate degree, it represents an educated audience. 54 per cent of online shoppers are at an executive level. 24 per cent of online shoppers are professionals or self-employed, indicating an assured spending power.
- **Internet access/savvyness:** 76 per cent of online shoppers access the Internet from their office, 63 per cent from home and 24 per cent from cyber cafes. Shoppers accessing the net through multiple access points represents a dismissal that Internet Penetration is no more only PC dependent. All Internet activity support e-commerce in an allied or primary capacity.

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<sup>1</sup> **IOAI**- Internet & Online Association of India

**Purchase history:** 62 per cent of shoppers having shopped for more than a year. 37 per cent of online shoppers have started shopping online in the last 12 months. 67 per cent of online shoppers have shopped online as recently as three months showcasing the growing acceptance of ecommerce

**Frequency of purchase:** 67 per cent of online shoppers have shopped online as recently as three months showcasing the growing acceptance of ecommerce. 53 per cent of online shoppers have shopped online more than five times, 27 per cent of online shoppers have shopped online more than 10 times.

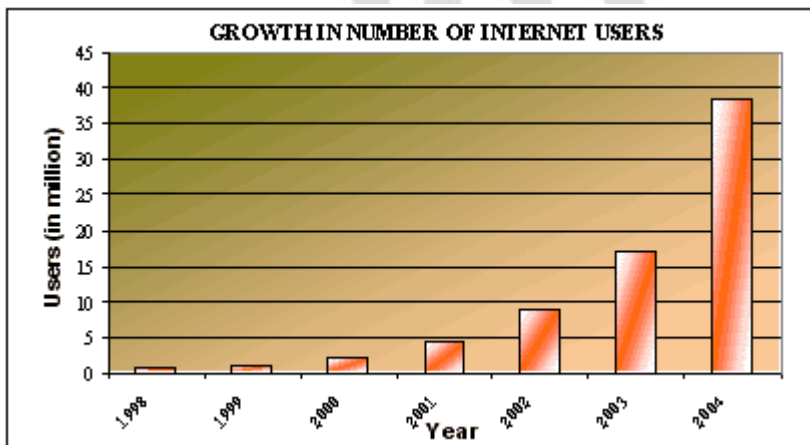
- **A top state/city representation:** Maharashtra: 29 per cent (Mumbai: 24 per cent), Delhi NCR: 19 per cent, Tamil Nadu: 11 per cent (Chennai: 7 per cent), Karnataka: 10 per cent (Bangalore: 6 per cent), Uttar Pradesh: 7 per cent (Lucknow: 2 per cent), West Bengal: 6 per cent (Kolkatta: 5 per cent), Andhra Pradesh: 5 per cent (Hyderabad: 4 per cent), Rajasthan: 5 per cent, Gujarat: 4 per cent (Ahmedabad: 2 per cent) and Kerala: 3 per cent.
- **Top City/Product Preference:** Mumbai (24 per cent) holds the Top Slot for Every Category, except jewellery. Delhi (19 per cent) fast competing with Mumbai in accessories, apparel, gifts, home appliances categories and has piped Mumbai to rank first in jewellery. Chennai (7 per cent) is at rank three for railway tickets, airline tickets, magazines, home tools, toys, jewellery, beauty products and sporting goods categories. Bangalore (6 per cent) is at rank three for books, electronic gadgets, accessories, apparel, gifts, computer peripherals, movies, hotel booking, home appliances, movie tickets, health and fitness products and apparel gift certificates. Kolkata (5 per cent) jumps to rank three in online music sales online and is at rank four for the movies and the music categories.
- **20 Products Bought Online:** Books (41 per cent), Electronic Gadgets (40 per cent), Railway Tickets (39 per cent), Accessories Apparel (36 per cent), Apparel (36 per cent), Gifts (35 per cent), Computer and Peripherals (33 per cent), Airline Tickets (29 per cent), Music (24 per cent), Movies (21 per cent), Hotel Rooms (20 per cent), Magazine (19 per cent), Home Tools and Products (16 per cent), Home Appliances (16 per cent), Toys (16 per cent), Jewellery (15 per cent), Movie Tickets (15 per cent), Beauty Products (12 per cent), Health and Fitness Products

(12 per cent), Apparel Gift Certificates (10 per cent) and Sporting Goods (7 per cent).

- **Satisfaction Index:** 18 per cent of online shoppers are 'Highly Satisfied' with online shopping and 62 per cent are 'Satisfied' with their online shopping experience making a case for repeat purchases and peer to peer recommendations on this interactive medium. 17 per cent are 'Neither Satisfied or Dissatisfied' - An opportunity to convert them towards this increasingly high satisfying index. 3 per cent of online shoppers are 'Dissatisfied' with online shopping.
- **Top 5 Reasons to Shop Online:** 70 per cent of online shoppers like 'Home delivery' about online shopping, 62 per cent like 'Time saving', 60 per cent of online shoppers like the '24x7', 45 per cent like the 'Ease of use' and 39 per cent of online shoppers like product comparisons.

## 5.2 INTERNET GROWTH IN INDIA

E-commerce figures in advertisement are likely to record the maximum growth between the years 2000 to 2003, because of the substantial addition to the user base expected in this period. The emergence of broad band and the convergence of media are likely to provide the thrust to the online ad-spend budgets of companies.



- 5 to 10% of existing 50,000 dotcoms which are of Indian origin or are India oriented were likely to survive in the next 5 years. Online advertising in India is poised for a stupendous leap.

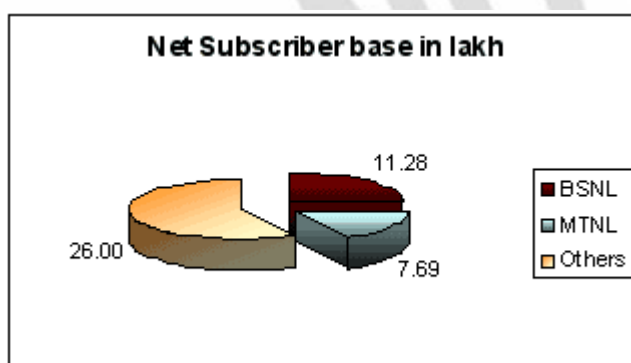
A shake-out in the content providers segment following large-scale redundancy as e-commerce and online advertising sink their roots deeper.

Intense competition in the Internet Service Provider (ISP) segment is likely to focus on generating alternative streams.

In the case of Internet enablers and software service providers, a significant increase in market size was expected in the long term. On the structural front, a spate of mergers, acquisitions and alliances in the Indian Internet business in the medium to long to long terms, paving the path for greater consolidation is expected.

- Most large companies in the Internet business categories were expected to follow the merger and acquisition (M&A) route to widen the portfolio of products and services, increase geographical coverage and reduce the marketing costs and gestation period.

Internet penetration was low in India. India's subscriber base reach 8.3 million users in 2005, with the highest growth rate being witnesses by DSL (digital subscriber line) and cable connections. Dial-up connections, however would still account for the largest share of internet connectivity options. Net subscriber base of up to 45 lacs.



## 5.3 Research Highlights

### 5.3.1 Respondents to the survey

Responses were received from 116 organisations. The organisations were asked to classify themselves under one of the following sectors of industry:

- \* Manufacturing & distribution.
- \* Computers and communications.
- \* Financial services.
- \* Retail and wholesale trade.
- \* Other industries.

Some of the questions were analysed by industry to highlight variations peculiar to those industries.

A significant majority of the responding organisations had global reach and marketed their goods/services to both end-consumers and other businesses.

Use of e-commerce can be classified into 2 broad areas:

- \* Interfacing and selling to the end-consumer or B2C (Business-To-Consumer).
- \* Interfacing and trading with other businesses or B2B (Business-To-Business).

The following charts show that the main target market of the organisations that responded to the survey included an even mix of both areas.

The responding organisations were quite varied in terms of size with the number of employees ranging from less than 100 to more than 10,000, and the turnover ranging from less than Rs 10 million to more than Rs 10 billion.

The annual infotech spending of the organisations also varied over a wide range. While some organisations spent less than Rs 100,000 on infotech per annum, there are others who spend more than Rs 100 million.

### ***5.3.2 Strategic Importance Of E-Commerce***

Over half of all respondents said that e-commerce constituted either a substantial part of, or was crucial to their, organization's strategy. Only 4 per cent felt that it was of no importance to the organization's strategy. It is clear that e-commerce is increasingly being seen as a strategic tool to gain business advantage and competitive edge.

### **5.3.3 Potential Benefits**

This section shows that companies are identifying the real benefits of e-commerce in terms of opening up new markets, improving productivity, and automating their supply chains. Respondents were asked to rate the potential benefits as relevant to their organisations. The respondents rated Improved Customer Service and Improved Productivity as the Top Two potential benefits e-commerce might provide to their organisations.

### **5.3.4 Realised Benefits**

The chart shows the benefits realised by organisations using e-commerce. Improved Productivity and Improved Product Quality have been rated as the Top Two realised benefits. Improved Customer Service, rated as one of the Top Two potential benefits, is a close third.

### **5.3.5 Potential Barriers**

The respondents rated Lack of Standard Payment Infrastructure and Trading Partners Technology as the Top Two potential barriers to effective adoption of e-commerce in their organisations.

Infrastructure Cost and Security Issues figured as major concerns although they were not as important as the first two. We found that organisations are willing to make the necessary investments in the technology as long as they could manage it efficiently and get a satisfactory return on investment.

Our research in the European market indicated that security is an over hyped concern. The tools for overcoming security risks are available but it remains subject to media hype. Those companies that are most advanced in their use of e-commerce recognise this and, so, are likely to regard it as a less significant barrier than those that have not.

### **5.3.6 Integration**

Over half of all respondent companies had support at the board level and had allocated a budget for e-commerce integration. Forty per cent of the organisations are taking measures to integrate e-commerce technologies with their current operating processes and technologies. However, adapting to e-commerce will not simply mean redesigning internal processes and customer interfaces. Instead, companies will have to think of e-commerce as a new channel and not just a replacement for existing channels which, in turn, means that they may have to

start offering new services in order to maintain their market image and position. Others will find that e-commerce provides them with the opportunity to offer new services.

### **5.3.7 Implementation of E-Commerce Technologies**

The charts show the status of implementation of e-commerce technologies in different industry sectors.

Internal and Internet e-mail, Websites, and Internet access are popular in all major industry segments. Almost everyone uses internal e-mail and most organisations allow their employee's access to the Web. In 2 years, respondents from Manufacturing & Distribution companies favoured implementation of Extranet, Intranet, and EDI technologies while Financial Services companies expected to have installed EDI, Extranet, and IVR systems, and Computers & Communications were planning EDI implementations.

The following table summarises the most predominant e-commerce technologies that are currently being implemented and that will be implemented over a period of time in different industrial segments.

### **5.3.8 Functions Performed Electronically**

The Internet was favoured far more than all the other electronic channels with almost half the respondents using it for news and information-based uses. The table ranks the functions on the basis of percentage of respondents performing them electronically.

### **5.3.9 Transaction Volumes**

Less than half of the respondents were able to provide details of the volume of transactions done electronically. Of these, nearly half said that the volume of transactions in their organisations is zero. Hence, most organisations surveyed are not able to determine the number of transactions completed through electronic channels and many are yet to use these channels.

Respondents were asked for the approximate value of transactions currently completed through electronic channels. Based on the table, the weighted average annual monetary value of e-commerce transactions is approximately Rs 123 million for the respondents surveyed.

### **5.3.10 Governance**

The sponsors within a company determine the scope and success of an e-commerce project. This section reveals that infotech departments are taking the lead on e-commerce projects within their organisations. Executive committee support in the form of board approvals, and intervention to ensure that the necessary business reengineering takes place to ensure that e-commerce is integrated with business processes is critical to ensure that these projects deliver on promises.

Respondents were asked which part of the company was the principal sponsor of current or future e-commerce projects. In nearly two-thirds of the companies, it was the Executive Committee. It was observed that the infotech department champions, develops, and maintains these projects in a majority of the organisations.

### **5.3.11 Important features of Maintaining Security Of E-Commerce Transactions**

The respondents were asked to rate the importance of features in establishing and maintaining the level of trust required for employing e-commerce technologies effectively. It is interesting to note that all the features have received very high ratings (a minimum of 67 per cent of respondents say that a particular feature is Important/Very Important/Critical). The highest ratings have been given to Network Access Controls and Through-The-System Tests & Audits.

### **5.3.12 Trading partners**

About 30 per cent of respondents had more than 5 per cent of their trading partners trading electronically, and about half of these had more than 50 per cent of their trading partners trading electronically.

### **5.3.13 Characteristics of Trading Partners**



The respondents were asked whether they agreed/disagreed with certain characteristics of their trading partners. The charts show the cumulative responses of all the organisations.

More than half the respondents felt that trading partners were not a driving force behind their adoption of e-commerce while, interestingly, trading partners+ technology was named as a significant barrier to their adoption of e-commerce (Section 5.5). This implies that although the driving force behind e-commerce was internal, its adoption was inhibited by lack of appropriate technology with the trading partner(s).

Trading partners were viewed favourably by more than half the organisations surveyed in terms of considering concerns, having explicit role-based agreements, quality of communications, long associations and levels of trust, while about a quarter of the respondents viewed them as competitors in some areas.

It is evident that most organisations work closely with their business partners creating an environment with a large, unutilised potential for Business-To-Business implementation of e-commerce.

#### ***5.3.14 Procedures Used By Organisations to Ensure Security And Proper Use Of Compute Resources***

The chart details the procedures used by organisations to ensure confidentiality, security, and appropriate use of computer resources.

### **5.4 Conclusion**

From the survey, it is evident that the potential benefits offered by e-commerce are far from realised. The perception that trading on electronic channels cannot make money is challenged as incorrect, at least in the Business-To-Business sector. There is also some expectation that, although trading on electronic channels may take longer in the consumer sector due to the trading barriers on the Internet, this, too, will soon follow. Electronic channels are forcing companies to re-think major aspects of the way they are organised and do business. E-commerce raises major strategic issues and is accelerating developments in areas such as globalisation, branding, customer service, and supply chain.

Markets are being transformed as barriers to entry are torn down. This survey shows that the application of e-commerce and the Internet in particular, extend beyond marketing to all

aspects of the supply chain. It also shows that the technical aspects are no longer as important as the integration of business processes and the resulting need to re-engineer them across the organisation. But companies are approaching these developments piecemeal.

If companies are to make profitable use of e-commerce, then, its champions must make their cases heard at the highest levels. This is an opportunity for the infotech and marketing departments to make their Board aware of the effect of e-commerce not just from the technical point of view, but also in terms of its impact on the bottom line. In our opinion, only those companies with an organisation-wide initiative, funded from the centre or, at least, on a joint venture basis between functions, with Board approval, will emerge as leaders in what is a rapidly changing environment.

Senior management members who have earlier been responsible for the e-commerce initiative in their organisations need to prepare a compelling business case, detailing the likely returns on investment, and submit it to the Board. The rewards, both for the company and for the individual involved in shaping its adaptation to the information age, promise to be well worth the effort.

## Chapter 6

### Recommendations and Conclusion

#### 6.1 Future Prospects on E-Commerce

The report of the United Nations Conference on Trade and Development (UNCTAD) on E-commerce and Development makes the point that although world economic growth has slowed, and in spite of the difficulties in which the information technology and telecommunications sectors are mired, the rapid growth of internet use and electronic commerce continues. Estimates show that internet use is increasing by around 30 per cent annually, and although the rate of growth of transactions through the internet is much slower, e-commerce could represent up to 18 per cent of worldwide business-to-business (B2B) and retail transactions in 2006. Segments such as B2B have shown rapid growth.

And in certain sectors, such as finance, travel services, software, information and other e-services, online transactions have been growing at a much faster pace. For instance, in the developed countries, online banking already represents between 5 and 10 per cent of total retail banking transactions. Much of the growth has occurred in Asia.

The Report classifies India as a rising star in this regard, pointing out that India's IT services exports have almost doubled in two years and now account for more than 16 per cent of total exports and 8 per cent of all foreign exchange earnings. Given the extraordinary growth rates of e-services exports, the latter figure is expected to reach 30 per cent by 2008. Policy measures to support exporters of e-services should focus on increasing market access in e-services for exporters from the developing countries, as well as addressing domestic obstacles related to technology, payments, infrastructure (telecommunications) and standards.

But the overall message of the Report is a very positive one despite the current slowdown, the internet and online services are poised to grow, and India will be one of the main beneficiaries.

The e-commerce is one of the biggest thing that has taken the business by a storm. It is creating an entire new economy, which has a huge potential and is fundamentally

changing the way businesses are done. It has advantages for both buyers as well as sellers and this win-win situation is at the core of its phenomenal rise. Though there are some weak links, with improvements in technology, they will be ironed out, making the e-commerce easy, convenient and secure. The e-commerce is certainly here to stay.

## **6.2 Recommendations**

The most important factor that is necessary in growing eCommerce in India – *Trust*. If we look at the Indian context, I feel that there is a general lack of trust between retailers and customers. Consumers don't trust the retailers because they feel that they are either being over charged or that they wouldn't be able to get appropriate level of customer service once the sale is complete. Retailers don't trust the customers because they feel that the customers will take every opportunity to misuse the return or exchange policies. It is my opinion that this general lack of trust is the primary barrier that is impeding the growth of eCommerce within India. Here are some of the practical techniques that online retailers can employ to improve this level of trust and build an environment where customers feel safe in clicking that "Proceed to Checkout" button.

### **1. Customer Reviews**

Today's customers are putting less trust on website marketing messages and becoming more influenced by recommendations from other people. Customer's trust for an online retailer will increase if the retailer offers an ability to let customers share their positive as well as negative reviews about products or vendors. The key is to not "moderate" the negative reviews because by allowing customers to post negative reviews, it will actually enhance the credibility of the retailer as well as other reviews. Obviously, any foul language needs to be moderated but any genuine issues with the products or vendors must be posted along with the positive reviews.

### **2. Clear shipping and delivery commitment**

At the time of setting up products for sale, clear shipping and handling time must be associated with the product. This information should be displayed consistently on all product pages so that customer's expectations around shipping timeline can be clearly set.

### **3. Analytics & Personalization**

Although personalized product recommendations and content do not directly increase customer's trust, they do demonstrate to the customer that the online retailer is making a good effort in understanding the customer's individual needs and is acting upon them. This implicitly improves the comfort level that the retailer is not just looking to sell products but is making an honest attempt in building relationship with the customer.

### **4. Operational Reporting & Dashboards**

Online retailers must invest in strong operational reports that provide alerts and metrics on orders that have a risk of missing the service level that was promised to the customers. If you have recently implemented an eCommerce platform, chances are that at times orders will get “stuck” in various states. Therefore, it is important to establish thresholds around how long should orders stay in various states (such as “Processing for Payment”, “Preparing for Shipment” etc.) and then build automated alerts when orders exceed these thresholds.

### **5. Vendor Penalties**

In the Indian context, majority of the eCommerce sites work in a “drop-ship” model. This implies that the online retailer doesn't physically stock the goods, and instead relies on external vendors to directly ship the merchandise to customer's home. In this case, it is extremely critical to set clear SLA's on how long will it take the vendors to ship the orders. There should be financial penalties built into the contracts if the vendors miss the service levels. Also, there should be penalties if the vendors receive excessive negative reviews from customers.

### **6. Price Match Guarantee**

A Price Match Guarantee (PMG) is a store policy which entitles a customer to a refund of the difference between the store's asking price and a competitor's price. It can not only help build trust with the customer, it can also help reduce price competition across online retailers. This may sound counter intuitive but it is one of the most discussed examples in “Game Theory” and it has actually helped retailers in US to avoid direct price wars. Take for example a firm like Circuit City that has a price match guarantee, which looks good to a consumer. But that guarantee really allows Circuit City to charge higher prices since

competitors will be discouraged from setting a lower price that Circuit City only will match when it must.

### **7. Well trained call centre**

I recently called Airtel customer service to add Blackberry service to my cell phone. There was an issue with their automated messaging system that was directing me to a wrong group within Airtel. After calling 9 times, I gave up because every agent that I spoke to had the same scripted response that I should call back again and press option 2. The point I am making is that although it is important to train the call centre agents around specific customer service issues, what is even more important is that the call centre agents be trained to have good problem solving skills, and they should be empowered to own the problem resolution from end to end.

### **8. Fraud Protection**

Not only should an online retailer ensure that the appropriate security certificates are setup to handle checkout related transactions, the sensitive customer and payment information should be stored in an encrypted format. The messaging on the site should clearly indicate that the checkout process is completely secure. In addition, there are third party Fraud detection services available that help flag potentially fraudulent transaction based upon credit card usage velocity and other parameters. These services would not only help reduce the credit card charge-backs for the retailers, but will also improve the sense of security and trust with customers.

### **9. Proactive, timely communication**

Are we there yet? If you have gone on a long drive with kids, chances are that you have been asked this question. It is human nature to expect timely communication, especially when they are waiting for something that they have already paid for. The retailers should ensure that every single status update on the order generates an alert for the customer. Also, if the order waits in a specific state for a timeframe longer than what was promised to the customer, an email should be automatically sent to the customers to make them aware of the delay. If the delay is longer than a few days, customer should be contacted via phone and asked for approval for the delay or given an option to cancel the order.

## **10. Charge only after order shipment**

Customers feel much more comfortable if they know that they will only get charged once the order ships. Currently, a lot of retailers charge the customer's credit card immediately when customer places the order. However, they should consider authorizing the amount at the time of order and only charge the card once the order ships. This will also minimize any need to refund the amount back to the customer in case the order needs to be cancelled for any reason.

## **11. Self Service Capabilities**

The more online self service capabilities (e.g. order cancellation, modifications) retailers can provide to the customers, it will not only help reduce the call centre expense, but will also build more confidence with the customers. Customers will feel more in control because they wouldn't have to spend 10 minutes with a call centre agent to explain the issue – instead, they can directly resolve the issue online.

## **12. Real time inventory updates & safety stock**

Retailers must invest in building automated capabilities that keep an up to date record of how much inventory is available for all their products. Products must immediately become unavailable for purchase from the site as soon as the inventory reaches below the safety stock. Cancelling customer orders due to lack of inventory is a situation that all retailers must avoid because this not only frustrates the customers, it drops their confidence in the retailer's ability to keep their promise.

E-Commerce will see a significant growth in India. However, the chasm between the early adopters of eCommerce and the ones who are waiting can only be crossed by building a strong level of trust with our customers – and winning them, one customer at a time.

### **6.3 Summarizing: Size of B2C and C2C E-Commerce Market in India**

The total market size of B2C and C2C E-Commerce industry in India is around Rs. 7080 crores at the end of 2006-07. It is expected to rise to Rs. 9210 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:

MARKET SIZE FOR THE YEAR	2006-07 (Figures in Rs. Crores)	2007-08 (Figures in Rs Crores.)
Online Travel Industry	5,500	7,000
Online Non-Travel Industry	1,580	2,210
- eTailing	850	1,105
- Online Classifieds	540	820
- Pain Content Subscription	20	30
- Digital Downloads	170	255
<b>Total B2C/ C2C E-Commerce Market</b>	<b>7,080</b>	<b>9,210</b>

The Online Travel Industry has been driving the growth in the B2C E-Commerce industry, owing to entry of low-cost airlines and increase in online bookings for railways and hotels. With an increase in mobile subscribers across the country, the digital downloads segment is expected to be one of the main contributors to the Online Non-Travel Industry in future.

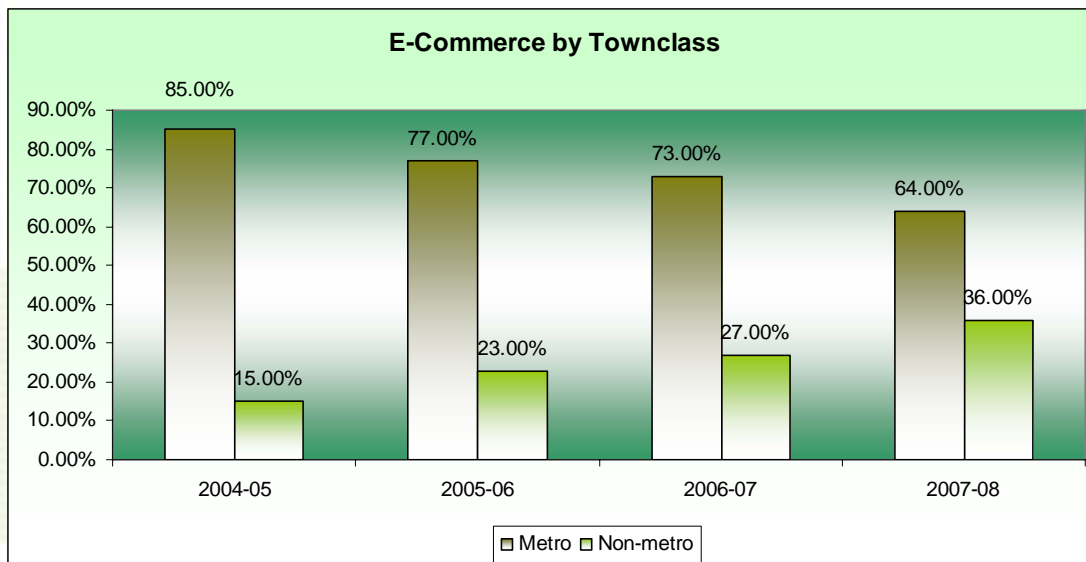
#### 6.4 The Future of E-Commerce

**E-Commerce is the future of shopping.** Thus, it would be apt to quote “*The future is here. It's just not widely distributed yet*”- William Gibson

The Internet economy will continue to grow robustly; Internet users would buy more product and buy more frequently online ; both new and established companies will reap profits online; and...

- **Safer Online Payment Systems:** 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. The Internet users are expected to buy high-end products like automobile, property, home durables online.
- **Customization of content and offerings:** As the internet users mature, the demand for customization will increase. The content would adopt the regional flavours. More niches will be formed, seeking for offerings *made for them* and content that meets their requirements.
- **More number of shoppers from Non-Metros:** Currently, following the spread of users coming from Metros and Non-Metros.





By the end of year 2007-08, the contribution from the Non-Metros is expected to increase. This change would be bought by higher penetration of Internet in the small towns and limited reach of physical distribution channels of the established sellers to these towns. These factors coupled with higher disposable income would compel the Internet users in these towns to buy online.

- **Expanding User Base:** Going at the current rate of growth in the Internet users transacting online, the user base for E-Commerce is expected to rise expand exponentially. A large portion of the Internet population is under the age of 35 years and is increasingly moving northwards as far as the purchasing power is concerned. The uncanny nature of this segment “*to use now and pay later*” is going to play an important part in the future growth of e commerce market. Be it picking new stocks or new clothes, finding a job or a bride, the web way of doing things will gain precedence.

- **MCommerce:** Currently E-Commerce is synonymous with PC and browser-based interaction. However, in the near future GPRS-enabled mobile phones will rule the online transactions. Today, online downloads to mobile phones is limited to low value services like music downloads, picture message downloads and ring tone downloads. However, as the mobile users get more familiar with buying online, the purchase of high-involvement products is expected to rise. Certain verticals like Banking and Finance, Travel, Entertainment, and Retail are likely to drive the growth of m-Commerce in the country. In the recent past, E-Commerce and it variants like the m-Commerce have yearned for the position of being the most important drivers of the Internet. They are continuously evolving and upgrading to make a consumer’s e-Spending experience hassle free and memorable.

However, to attain that position, it needs to awaken its inner beauty – simplicity and security of transaction.

### **6.5 E-commerce Solutions India**

With the growth of e-commerce over the past few years, the number of e-business solution providers in the industry has also grown drastically, especially in India. E-commerce can be compared to a 24/7 open shop or a showroom catering to its clients and buyers. Therefore, a lot of maintenance has to go into it. This is where the e-commerce solution providers step in, take things in their hands, spend time and further enhance your business.

Conducting business online may sound very easy as you avoid a lot of unwanted hassles but a lot of skills and innovation is required to keep it going. E-commerce involves doing market research, getting qualified traffic, converting hits to business advantages and using information to generate new e-commerce from existing clients.

E-commerce solution providers in India with their in-depth research and skills will provide you with tactics and strategies to make your business profitable. The first step for them would ideally be to understand your business and requirements. A research will follow to find out the predicted market potential, the best keywords and phrases, competition for keywords, search engine relevancy etc.

The next step for an e-business service provider would be to find a way to get the visitor on your website to take steps to benefit your business. This is done by understanding the psyche of the visitor and creating an automated website, attractive and user-friendly for the visitor. Efficient e-commerce solution providers will definitely opt for internet marketing to get more visitors to visit your website. Launching a monthly newsletter for your customers is also a good idea. You can send them updates about the new and the latest that has been added to the portfolio of products on your website.

The launch of your website if required is also taken care of by the e-commerce service providers. Site-management and promotion is also very important. The content, images and the layout of a website has to be continuously improved and worked upon keeping up to date with the market. Overall, your website should be designed to attract the first time visitors.

The usability and utility factor should also be kept in mind. This will bring them back to your website whenever they plan to buy anything.

The web of e-commerce solution providers in India is vast. They offer a host of e-commerce solution and consulting services to support guide and help you at each step. Outsourcing e-commerce solutions will help you save time and resources while you can focus on other important business objectives. Some e-commerce solution providers also offer BPO services which can be used for telemarketing and cross-selling to maximize profits.

E-commerce solutions are a big support for businesses today. The demands and the expectations of the end-users are high and so is the level of competition in the industry. E-commerce solution providers help you streamline your process and cover all the gaps that might have gone unseen.

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