CHAPTER 2
CONCEPTUAL FRAMEWORK

As this research focuses on e-tailing in India, it is necessary to review the existent literature on e-commerce. Therefore, this section aims to introduce the body of knowledge on e-commerce and e-tailing, covering the issues of benefits and limitations, applications, the development of e-commerce in India, and the barriers to the development of e-commerce in India. The chapter also covers success factors for e-retailing.

2.1 Introduction to E-Commerce

2.1.1 Definition of E-Commerce

Today e-commerce became a symbol of globalization and in many ways its leading feature, e-commerce represents the cutting edge of success in this digital age. E-commerce stands for electronic commerce and relates 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. It involves conducting business with the help of the electronic media, making use of the information technology such as Electronic Data Interchange (EDI). In simple words, Electronic commerce involves buying and selling of goods and services over the World Wide Web. Customers can purchase anything right from a car or a cake sitting comfortably in his room and gift it to someone sitting miles apart just by click of a mouse.
Several researchers has made attempts to define e-commerce. Some of those definitions are presented hereunder.

According to Zwass (1998), “e-commerce is the sharing of business information, maintaining business relationships, and conducting business transactions by means of telecommunications networks”

In the year 2003 Laudon & Traver defined E-commerce as the use of the internet and the web to transact business. More formally, digitally enabled commercial transactions between and among organization and individuals. In the same year two another prominent thinkers Kotler And Chaffey defined e-commerce “as in addition to providing information to visitors about the company, its history, policies, products and job opportunities, the company or site offers to transact or facilitate the selling of products and service online” and “All electronically mediated information exchanges between an organization and its external stakeholders” respectively While in the year 2006 Schneider defined e-commerce as business activities conducted using electronic data transmission over the internet and the world wide web’

E-commerce (electronic commerce or EC) is the buying and selling of goods and services on the Internet. In practice, this term and e-business are often used interchangeably. For online retail selling, the term e-tailing is sometimes used.’

Ecommerce, e-commerce, or electronic commerce is the conduct of a financial transaction by electronic means. With the huge success of commerce on the Internet, ecommerce usually refers to shopping at online stores on the World Wide Web, also known as ecommerce Web sites. E-commerce can be business to business (B to B) or business to consumer (B to C).
This definition of e-commerce, that is presented by Turban et al. (2006, p. 4), is used as the foundational definition of e-commerce for this study. This definition has been chosen for its comprehensiveness and clarity and its relevance to e-commerce in the retail industry.

‘E-commerce describes the process of buying, selling, transferring, or exchanging products, service, and/or information via computer networks, including the internet.’

2.1.2 History of E-commerce

The term e-commerce was originally conceived to describe the process of conducting business transactions electronically using technology from the Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). These technologies, which first appeared in the late 1970’s, allowed for the exchange of information and the execution of electronic transactions between businesses, typically in the form of electronic purchase orders and invoices. EDI and EFT were the enabling technologies that laid the groundwork for what is now known as e-commerce. The Boston Computer Exchange, a marketplace for used computer equipment started in the year 1982, was one of the first known examples of e-commerce. Throughout the 1980’s, the proliferation of credit cards, ATM machines and telephone banking was the next step in the evolution of electronic commerce. Starting in the early 90’s, e-commerce would also include things such as Enterprise Resource Planning (ERP), Data Warehousing and Data Mining.

In the year 1994 e-commerce really accelerated due to the introduction of security protocols and high speed internet connections such as DSL, which allowed much faster connection speeds and faster online transaction capability. In between the
year 1998 and 2000, a substantial number of businesses in Western Europe and the United States built out their first rudimentary e-commerce websites. The definition of e-commerce began to change in the year 2000 though, the year of the dot-com collapse, when thousands of internet businesses folded. Despite the epic collapse, many of the worlds’ most established traditional brick-and-mortar businesses were emboldened with the promise of e-commerce and the prospect of serving a global customer base electronically. The very next year, business to business transactions online became one of the largest forms of e-commerce with over $700 billion dollars in sales\(^1\).

Many of the dot-com collapses “first-mover” failures served their offline competitors very well, providing evidence of what not to do in building a viable online business. For example, Webvan which was one of the more infamous dot-com failures, trail blazed the path for Albertsons and Safeway, two of the largest national supermarket chains, who each have developed their own successful online grocery delivery businesses.

### 2.1.3 E-Commerce Pioneers

The birth of companies such as eBay and Amazon (launched in the year 1994) really began to lead the way in e-commerce. Both eBay and Amazon were among the first to establish prominent e-commerce brands. The most prominent e-commerce categories today are computers, books, office supplies, music, and a variety of electronics.

Amazon.com, Inc., founded by Jeff Bezos, was the original e-commerce pioneer and certainly the most recognizable. In the beginning, Amazon’s business model required massive investment in warehousing, delivery and fulfillment capability and took years for Amazon to gain profitability. But finally in the year 2003,
almost 10 years after launching the company, Amazon.com realized its first annual profit. Amazon began as just an online bookstore but over the years has extended its offering to a wide variety of product categories, including electronics, software, music, DVD’s, CD’s, video games, MP3’s, clothing, shoes, health and beauty products and even household goods. Bezos, was responsible for naming the company “Amazon” after the world’s largest river and it enjoys a truly global presence with stand alone websites in six other countries, including the United Kingdom, Canada, France, Germany, Japan and China. Amazon.com was also the original pioneer in affiliate marketing, allowing other websites to earn sales commissions for referring Amazon products to their customers. Today, Amazon generates anywhere between 30 to 40 percent of its total sales revenue from affiliates or third party merchants who list and sell their products on Amazon’s web site. Today, the Amazon moniker certainly applies as it is one of the most recognized and most profitable e-commerce businesses on the planet. In the year 1999, Jeff Bezos was honored with Time Magazine’s “Person of the Year” award, immortalizing him forever as probably the single most recognizable figure in the entire e-commerce community.

Amazon and fellow e-commerce industry giant Dell remain two of the largest internet retailers in the world, among other offline industry giants such as Staples, Office Depot, and Hewlett Packard. Dell.com is another one of the most recognizable e-commerce brands online. Dell.com’s website was launched in the year 1994 with a single static web page and their online presence quickly grew. In year 1997, Dell announced a single-day sales record of a million dollars on its website. In fact, roughly half of Dell’s total profits come directly from their website alone. With no offline retail outlets to speak of, Dell is another e-commerce pioneer that many businesses have tried to model themselves after by selling products almost exclusively online.
2.1.4 Categories of E-commerce

E-commerce is usually classified by the types of entities participating in the transactions or business processes. Generally, e-commerce activities can be grouped into three categories: Business-to-Business (B2B), Business-to-Customer (B2C), and Customer-to-Customer (C2C), as shown in Table 2.1.

Table 2.1: Categories of E-Commerce

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>DESCRIPTION</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2B</td>
<td>e-commerce model in which all of the participants are businesses or organizations</td>
<td>Alibaba.com, BtoBOnline.com, IndiaMART.com</td>
</tr>
<tr>
<td>B2C</td>
<td>e-commerce model in which businesses sell to individual shoppers</td>
<td>Futurebazaar.com, flipkart.com, Amazon.com sell products to customers through their websites</td>
</tr>
<tr>
<td>C2C</td>
<td>e-commerce model in which consumers sell directly to other consumers</td>
<td>Olx.com, Quicker.com in which consumers trade with each other through an online marketplace</td>
</tr>
<tr>
<td>C2B</td>
<td>e-commerce model in which consumers present themselves as a buyer group.</td>
<td>SpeakOut.com</td>
</tr>
</tbody>
</table>

1. **B2B e-commerce:**

Business-to-Business involves online transactions between businesses (Thanasankit, 2003, p.152), all of the participants involved in B2B e-commerce are either businesses or organizations (Turban et al. 2006, p. 8). Schneider (2006) pointed out that in terms of volume and number of transactions, B2B is much greater than B2C. Figure 2.1 shows a rough approximation of the relative sizes of these elements in terms of the dollar volume and the number of transactions. Obviously, B2B e-commerce plays a very important role in e-commerce activities, and occupies a great percentage.

*Figure 2.1:- Elements of Electronic Commerce*

![Diagram of B2B and B2C e-commerce](source)

Business-to-Business (B2B) e-commerce is estimated to grow rapidly at a CAGR of 59.1 per cent in India. India’s largest B2B portal Tradeindia, maintained by Infocom Network Ltd, also stated that e-commerce transactions in India show a growth rate of 30 percent to 40 percent and will soon reach the $100 billion mark. Companies like Indiamart.com has also penetrated into this segment and company has more than 5 million buyers.
2. **B2C e-commerce:**

B2C is another of the major components of e-commerce, and includes retail transactions of products or services from businesses to individual customers, and is also called ‘e-tailing’ (Turban et al. 2006, p. 8). Business-to-Consumer (B2C) e-commerce is also growing rapidly through year 2008, but it cannot defeat B2B e-commerce, which remains a significantly larger channel. This would be led by consumers' willingness to make online purchases, as the Internet becomes a more respected and trusted medium. Future Group also entered into B2C with their portal futurebazaar.com. Along with that flipkart.com, Infibeam.com are also examples of B2C in India. According to eMarketer, January 2008, B2C E-Commerce is expected to rise at US $ 5.6 billion in the year 2011 from $ 0.8 billion in the year 2006⁴.

3. **C2C e-commerce:**

In C2C e-commerce, business originates from consumer and ultimate destination is also consumer. This type of commerce is best suited for dealing in goods for which there is no established market mechanism, for example selling used books or clothes either on cash or on barter basis. The vast space of internet allows person to globally search for potential buyer. This segment of e-commerce is showing growth in India as portals like olx.com, quicker.com have entered into market.

4. **B2G e-commerce:**

Business-to-government e-commerce or B2G is generally defined as commerce between companies and the public sector. It refers to the use of the Internet for public procurement, licensing procedures, and other government-related operations.
5. **B2B2C e-commerce:**

Business-to-business-to-customers (B2B2C): In this case a business sells to a business but deliver the product or service to an individual consumer.

6. **Government-to-citizens (G2C) and to others:**

In this case a government entity (unit) provides services to its citizens via EC technologies. Government units can do business with other government units as well as with businesses (G2B).

7. **Mobile commerce (m-commerce):**

When e-commerce is done in a wireless environment, such as using cell phones to access the Internet and shop there, is known as m-commerce.

### 2.1.5 Components of E-Commerce Market

The Indian e-commerce portals provide goods and services in a variety of a number of categories such as apparel and accessories, health and beauty, books and magazines, computers and peripherals, consumer durables and so on. Online users in India have shown willingness to make purchase over internet and that is quite evident from growth of various components of e-commerce.

The e-commerce market is broadly divided into two major categories namely online travel Industry and Online non travel industry which include e-tailing, digital download, financial services and other online services such as online matrimonial, online gaming subscription and so on. The online travel is the major component of e-commerce with 76 percent contribution to e-commerce market,
while the e-tailing and financial services have humble contribution of 8 percent along with 2 percent contribution from digital download\(^4\).

**Figure 2.2: Contribution from Components of E-commerce Market**

(\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure2.2.png}
\caption{Contribution from Components of E-commerce Market}
\end{figure}\)

(Source: Report of Online Commerce: March 2011, IAMAI)

Of the market size of INR 19,688 crores; online travel, which includes booking rail and air tickets, hotel accommodations and tour packages comprised 76 percent of the whole pie. Online travel industry has grown from INR 6,250 crores in the year 2007 to INR 14,953 in year 2009 and is expected to reach at INR 37,890 crores by the year 2011. Out of total INR 14,953 crores, online travel market, domestic air travel contributes 63 percent which is INR 9,482 crores followed by railway tickets contributing 28 percent (INR 4,184 crores) others such as international air travel (INR 548 crores), hotel booking (INR 308 crores), bus ticket (INR 294 crores), tour packages (INR 86 crores) & travel insurance (INR 52 crores) contribute balance 9 percent of the total online travel market.
E-tailing comprises of buying consumers items such as cameras, computers, home & kitchen appliances, flowers and toys, gifts online. This category has grown from INR 978 crores in the year 2007 to INR 1550 crore in the year 2009. At present, PCs, laptops, computer peripherals, accessories and storage, contribute the most 36 percent (INR 560 crores) to e-tailing followed by cameras & mobiles contributing 25 percent (INR 389 crores). Personal items such as jewellery, apparels, cosmetics, apparels, shoes and watches contribute 19 percent (INR 296 crores) whereas Electronic items like TV, Audio systems & other accessories account for 13 percent (INR 203 crores) Balance 7 percent is contributed by Home & kitchen appliances (4 percent) and other online buying (toys, gifts, flowers etc.)

Financial services market is estimated to be INR 1,540 crores and is expected to grow to INR 2,680 crores in the year 2011. The online financial services include insurance and related services (INR 585 crores), online transaction for financial services (INR 527 crores) and other fund-based transactions (INR 426 crores) such as paying utility bills.

Digital downloads as a category has increases from INR 238 crores in the year 2007 to INR 435 crores in the year 2009 and is expected to reach at INR 1100 crore by the year 2011. Major contribution came from mobile downloads is attributed to ringtone, wallpaper or picture download (INR 148 crore) and mobile recharge as well as bill payment (INR 148 crores). Software and utility applications for mobile account for 18 percent of digital download (INR 78 crores), paid music/video downloads contribute 7 percent (INR 30 crores) while balance 6 percent is contributed by mobile games downloads.

Along with above mention components, other online services category has shown increase from INR 680 crores in the year 2007 to INR 1,210 crores in the year
2009 and expected to reach at INR 2150 crores by the year 2011. In this category maximum contribution came from online job (INR 484 crores) followed by movie/cinema hall ticket (INR 424 crores), Online matrimonial (INR182 crores), other B2C classifieds (cars, real estate) contributes INR 109 crores and online food delivery (INR 7 crores).

2.1.6 Benefits of E-commerce

The benefits of e-commerce have been discussed by a number of researchers. David E. Colby, in 2004 (E-Business Technologies) and Turban et al. (2004) categorized the benefits of e-commerce based on the party which receives the benefit, such as the organization, the customer, or society. Table 2.2 summaries the benefits of ecommerce based on David E. Colby (2004) & Turban et al. (2006).

E-commerce also help organizations reach both national and international markets; there is no geographic boundary for e-commerce (David E. Colby, Wang, Head & Archer 2002). The Internet spans the world, and it is possible to do business with any business or person who is connected to the Internet. Simple local businesses are able to market and sell their offerings internationally using e-commerce. This global opportunity is assisted by the fact that, unlike traditional communications methods, users are not charged according to the distance over which they are communicating. Consequently, increased revenue from new customers and new markets can be expected.

In addition to sales opportunities for the sellers, e-commerce can also increase purchasing opportunities for the buyers, and thus make the supply chain more efficient and effective (Agrawal et al. 2001).
### Table 2.2: Benefits of E-Commerce

<table>
<thead>
<tr>
<th><strong>BENEFIT</strong></th>
<th><strong>EXAMPLE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization</strong></td>
<td>✇ Increased Sales Opportunity,</td>
</tr>
<tr>
<td></td>
<td>✇ Decrease transaction Cost,</td>
</tr>
<tr>
<td></td>
<td>✇ Ability to operate 24*7,</td>
</tr>
<tr>
<td></td>
<td>✇ Ability to maintain customer relationship with direct interaction,</td>
</tr>
<tr>
<td></td>
<td>✇ Enhancing Brand Image,</td>
</tr>
<tr>
<td></td>
<td>✇ Reduction of Marketing and Advertising Costs</td>
</tr>
<tr>
<td><strong>Customer</strong></td>
<td>✇ Wider Product Availability,</td>
</tr>
<tr>
<td></td>
<td>✇ Ability to shop 24*7,</td>
</tr>
<tr>
<td></td>
<td>✇ Easy Comparison Shopping,</td>
</tr>
<tr>
<td></td>
<td>✇ Ability to create one-on-one relationship with seller,</td>
</tr>
<tr>
<td></td>
<td>✇ Time Saving,</td>
</tr>
<tr>
<td></td>
<td>✇ Cheap Products and So On.</td>
</tr>
<tr>
<td><strong>Society</strong></td>
<td>✇ Improved quality of living</td>
</tr>
</tbody>
</table>

(Source: Adopted from Weibing Xuan & E-Business Technologies)

Through the huge amount of information available on the internet, organizations can easily compare and identify new business partners and suppliers and achieve cheaper prices, better efficiency, shorter ordering time cycles, cost reductions and uninterrupted business availability (Chaffey 2003; Turban et al. 2004). Schneider (2006) pointed out that such benefits will create competitive advantages for organizations.
2.1.7 Limitations of E-commerce

Even though e-commerce provides numerous benefits to customers, organizations and society, there are some costs and limitations associated with e-commerce. David E. Colby (E-Business Technologies), in the year 2004 categorized the disadvantages of e-commerce based on the party which receives the disadvantages, such as the organization, the customer.

Table 2.3: Limitations of E-Commerce

<table>
<thead>
<tr>
<th>LIMITATION</th>
<th>EXAMPLE</th>
</tr>
</thead>
</table>
| **Organization** | ◆ Rapidly changing technology,  
|             | ◆ Insufficient telecommunication capacity in some areas,  
|             | ◆ Problems maintaining security and reliability,  
|             | ◆ Global market issue of language,  
|             | ◆ Currency and policies,  
|             | ◆ Increase instances of fraud                  |
| **Buyer**   | ◆ Concern with Transaction security & privacy,  
|             | ◆ Lack of trust for unfamiliar sites,  
|             | ◆ Inability to touch and feel the product before purchase |
2.1.7.1 Technical Limitations

Further Technical Limitations are classified as:

1. Costs of a technological solution
2. Protocols are not standardized around the world
3. Insufficient telecommunications bandwidth
4. Software tools are not fixed but constantly evolving
5. Access limitations of dial-up, cable, ISDN, wireless
6. Difficulty in integrating e-Commerce infrastructure with current organizational IT system.

2.1.7.2 Non Technical Limitations

1. Customer fear of personal information being used wrongly.
2. Security and privacy
3. Cultural and legal obstacles
4. People's resistance to change
5. People not used to faceless / paperless / non-physical transactions
6. Returning goods
7. Perishable goods
2.2 Internet Development in India and E-Commerce

2.2.1 Definition of Internet

Internet is a means of connecting a computer to any other computer anywhere in the world via dedicated routers and servers. When two computers are connected over the Internet, they can send and receive all kinds of information such as text, graphics, voice, video, and computer programs.

Internet is emerging at a rapid pace and it’s already been a part in the field of business, economy, entertainment, social group all over the globe. The rise of Internet usage all over the world unlocked various new businesses, products, services. Internet is constantly changing the way consumers shop and business sells their product. People use internet for various purpose such as education, communication, to share information, entertainment, financial transactions, shopping, for business and so on. Popular online activities includes emailing, search or buy non travel product, download music, social networking, search or buy travel products, instant messaging or chatting, PC to mobile SMS and pay bills online. Most used websites are Yahoo and Google, Gmail for e-mailing and instant message purpose, Naukri for job search, IRCTC for online travel, 99acre for real estate, Sharekhan for online share trading, Way2sms for PC to mobile SMS and ICICI bank for net banking purpose.

The number of people online around the world will grow more than 45 percent to 2.2 billion users by the year 2013 and Asia will continue to be the biggest Internet growth engine. 'Global Online Population Forecast, 2008 to 2013', the report noted that emerging markets like India would see a growth of 10 to 20 per cent by the year 2013.
2.2.2 Internet Usage and Population Statistics

As shown in Figure 2.3, the number of internet users in India has grown markedly since year 2001. Form modest figure of 7 million it has raised to 100 million over a decade time. Graph also shows significant raise during last half of the decade which serves as one of the facilitating factor for e-commerce.

**Figure 2.3:** Internet usage statistics in India (Year 2001 to 2011)

According to the Internet Usage Statistics of India – A 2010 report, there are 88 million active internet users in India out of the population of 1,173,108,018. India has 10.52 million broadband users till October 2010, constituting 6 percent of population. According to Akamai report 2009 India has an average internet connection speed of just 772 Kbps compared with the global average of 1.5 Mbps.
The number of broadband subscribers surged from 9.47 million at the end of June to 10.30 million in third Quarter of the year 2010. As India’s mid-age population turns more affluent, the demand for broadband services has also surged. The share of Broadband subscription in total internet subscription stood at 57.6 percent at the end of September 2010.

The speed delivered by broadband connection is greater than or equal to 256 Kbps while that of narrowband is less than 256 Kbps. This indicates that people give more preference to the speed of access compared to the price charged for the same.

**Figure 2.4:** Trends in Internet/Broadband Subscription

(Source: http://trak.in/tags/business/2011/01/14/indian-telecom-services-report/)
Average weekly internet usage time has shown a similar increase to that of the numbers of internet and broadband users. As Figure 2.4 shows, the average weekly internet usage time has increased from 5.6 hours in July 2001 to 9.3 hours in the year 2008 and 15.7 hours in the year 2009. That means there is a rise of 70 percent from the year 2008 to year 2009. Internet is percolating into daily lives of people. Downloading music, videos and socializing through internet have become popular among young generation.

Figure 2.5:- Internet usage statistics in India (Year 2001 to 2009)

![Average Hour/week](Source: http://trak.in/tags/business/2010/04/07/internet-usage-india-report-2010/)

A large portion of users access internet from office and cyber cafe. Cyber cafes continue to dominate the share (37 percent) among various sources. However accessing internet through homes has steadily decline over the years. This indicates that although accessing through the number of cyber cafes has shrunk in Metros, users in small towns still access internet through Public Avenue.
Another reason of decline in accessing from home can be that though middle class people have started using internet but still can’t afford the charges of internet and prefer to access from cybercafé. As more and more businesses adopt internet as their key infrastructure, accessing Internet through offices continue to rise.

Figure 2.6: Access Point wise Internet Usage in India

Further 4 percent of users accessing Internet through alternative source such as mobile. Mobile is emerging as the potential point of access for low PC and high mobile penetrated Indian market, although the present usage is restricted to 4 percent of total Active Internet user base. The Wi-Fi hot spots as a point of access have been utilized by the 0.2 percent of Active Internet users. All in all approximately 4 percent of the 36 Million Active Internet Users are accessing their mobile phones for Internet access at least once a month.

The statistics (conducted by IMRB) show that 85 percent of internet users are between 18 to 35 years. So the usage is driven by youth of India which is a positive sign for the growth of e-commerce.

Figure 2.7: Age-wise Internet Usage in India

(Source: IMRB Report, Internet Usage and habits of Cyber Café User 2010)
As shown in Figure 2.7, almost half of the Internet users are online at least 4 - 6 times /week. Internet plays an integral role in daily life. Ranging from communication to shopping, a huge amount of activities is just a click away. This has lead to increased frequency of Internet usage among internet users. There is a gradual but substantial increase in the number of internet users who use internet daily.

**Figure 2.8:- Frequency of Internet Usage in India**

Activities performed on internet has seen gradual shift across demographic segments. Email service has gone down in all the segments.

As working professional access internet mainly through office, they tend to utilize internet for communication and searching various types of information. To a limited extent, they also indulge in E-commerce services. School and college students use internet for searching information and for entertainment purpose. Online advertising can play a major role in increasing potential of e-commerce by attracting more people via sending personalize e-mails to younger target market.

Figure 2.9:- Preference of Online Activities across Demographic Segments

2.2.3 Mobile Internet Usage

Mobile Internet is the system of interconnected network which is accessed through mobile devices such as a cell phone or other portable gadgets or browsing a mobile network such as Wi-Fi. This access does not require a desktop computer or a fixed landline connection. It can also be referred to as Internet access ‘on the move’.

Wireless infrastructures have emerged as an effective option of connecting to an ever-evolving expansive information network such as the Internet. Such infrastructures, due to their inherent advantages, promise a renewed future in terms of offering improved and exciting services to the existing users. As a result, stakeholders are willing to encourage the success of such infrastructures supporting “Internet on the move”.

Figure 2.10:- Wireless Subscriber Base (Year 2009-2010)

(Source: www.trai.gov.in/WriteReadData/trai/.../IndicatorReport6apr10.pdf)
Total Wireless (GSM + CDMA) subscriber base increased from 471.73 Million at the end of September 2009 to 525.09 Million at the end of December 2009, thereby showing a growth of 11.3 percent. During this quarter 53.37 million subscribers were added.

A study by IMRB and IAMAI suggests that there are only about 2 million users accessing Internet through their mobile phones and other mobile devices on an active basis, which means they use Internet on their Mobile at least once a month. As per the study, 27 percent mobile phones are Internet ready (127 million mobile subscribers out of 471 million total subscribers) and out of these 127 million subscribers, only 12 million have used Mobile Internet. And this number further reduces down to 2 million or 17 percent when it comes to active users.

Figure 2.11:- Activities Performed on Internet through Mobile Phone

(Source: http://www.pluggd.in/mobile-internet-statistics-for-india-297/)
Communication (Checking emails) and searching for information are the two most popular reasons for accessing net over mobile phones. With the introduction of M-commerce, advance booking of movie tickets using mobile phones and mobile adaptations of the social networking sites like Facebook and Orkut, there is substantial increase in users.

It has been observed, Internet access over mobile phones is still in its infancy in India, 96 percent of Urban Indian mobile users are not accessing net, a huge untapped growth potential. While those who do access the net (over their phones) do so with the intention of staying in touch with people.

2.2.3.1 Problems in mobile internet growth

India’s internet usage is concentrated in the urban and metropolitan areas, while the rural neighborhoods are more or less oblivious to the existence of mobile internet. If mobile internet usage in India has to increase, having only the developed areas increase usage will not help mobile internet growth in the country.

So from the above statistics, it can be concluded that the internet and telecommunications have undergone rapid development in India over the last decade and presenting a huge opportunity for e-commerce players.
2.3 Growth and Development of E-Commerce in India

2.3.1 Growth of E-Commerce in India

Today E-commerce is a byword in Indian society and it has become an integrated part of our daily life. Analysts such as CII and NASSCOM were optimistic on Indian ecommerce since year 2000-2001 and predicted tremendous e-commerce growth and India is showing tremendous growth in the e-commerce. Although as compared to the western countries, India is still in its initial stage of development.

Table 2.4: Growth of E-commerce in India

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Market Size</td>
<td>8,146</td>
<td>14,030</td>
<td>19,688</td>
<td>31,598</td>
<td>46,520</td>
</tr>
<tr>
<td>Online Travel Industry</td>
<td>6,250</td>
<td>10,500</td>
<td>14,953</td>
<td>25,258</td>
<td>37,890</td>
</tr>
<tr>
<td>Online Travel Industry (in Percentage)</td>
<td>77</td>
<td>75</td>
<td>76</td>
<td>80</td>
<td>81</td>
</tr>
<tr>
<td>Online Non-Travel Industry</td>
<td>1896</td>
<td>3,530</td>
<td>4,735</td>
<td>6,340</td>
<td>8,630</td>
</tr>
<tr>
<td>Online Non-Travel Industry (in Percentage)</td>
<td>23</td>
<td>25</td>
<td>24</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>1. e-retailing</td>
<td>978</td>
<td>1,120</td>
<td>1,550</td>
<td>2,050</td>
<td>2,700</td>
</tr>
<tr>
<td>2. Digital downloads or Paid Content Subscription</td>
<td>238</td>
<td>290</td>
<td>435</td>
<td>680</td>
<td>1,100</td>
</tr>
<tr>
<td>3. Financial Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Other Online Services</td>
<td>680</td>
<td>920</td>
<td>1,210</td>
<td>1,610</td>
<td>2,150</td>
</tr>
</tbody>
</table>

(Source: Report of Online Commerce: March 2011, IAMAI) (+ are estimated Figures)
Table 2.4 represents growth of E-Commerce in India from the year 2007. E-commerce industry has grown from INR 8146 crores in the year 2007 to INR 19688 crore in the year 2009. This growth is primarily driven by online travel industry which contributes 76 percent to total e-commerce industry in India today. This strong growth is expected to continue due to the support of service providers and is expected to reach INR 46,520 crores by the year 2011.

Research studies have indicated several factors responsible for the sudden spurt in growth of E-Commerce in India such as:

- Rapidly increasing Internet user base
- Technology advancements such as VOIP (Voice-over-IP) have bridged the gap between buyers and sellers online.
- The emergence of blogs as an avenue for information dissemination and two-way communication for online retailers and e-commerce vendors.
- Improved fraud prevention technologies that offer a safe and secure business environment and help prevent credit card frauds, identity thefts and phishing.
- Longer reach - Consumers in the Tier II & Tier III cities are fast realizing the potential of the Internet as a transacting medium
- The young population find online transactions much easier
2.3.2 Penetration of E-commerce in India

In India, internet has primarily been used for enabling communication between individuals through various modes such as emailing, messaging or social networking. Along with that internet has been used to collect information. Still in India, initiatives over the internet have not been able to make users buy products.

Figure 2.12 represents a study conducted by I-Cube in the year 2009 (survey conducted in top 15 cities in the country). As per the study there are 17.5 Mn Active Internet Users, who access Internet at least once in a month; out of which 13.6 Mn users who look for information regarding products. Of these, there are merely 7.4 Mn (40 percent) have bought any product over the Internet.

Figure 2.12:- E-Commerce Penetration among Active Internet Users

(Source: Report of Online Commerce: March 2011, IAMAI)
Though e-commerce is expected to reach Rs. 46,520 crore by the year 2011, barring few services such as online ticketing, Indian consumers are not shopping online. Large number of internet users use internet to look for information about the product or service they want to buy and purchase from physical format.

**Figure 2.13:- Retail Segment wise information search form Internet in Percentage (Only Look For Information)**

![Figure 2.13: Retail Segment wise information search form Internet in Percentage](image)

(Source: Report of Online Commerce: March 2011, IAMAI)

Further remaining 6.13 million Active internet users are those users who access Internet to look for information on product or services, however, didn’t purchase it over internet. Out of them 61 percent access internet to look for information on Online Travel (such as tickets and hotel bookings); of these 42 percent end up buying travel services through offline route.
Cameras and mobile is the second most looked for information category. 60 percent of Only Look For Information accessed Internet to look for information on cameras and mobiles while 17 percent of them bought the product through conventional shops.

Among Online Shoppers, 89 percent accessed internet to look for information on online travel services and 80 percent actually purchased product or services belonging to online travel using internet. Cameras and Mobiles were looked for information by 62 percent of online shoppers, however only 12 percent actually bought it over Internet. This indicates that even online shoppers access internet to know more about products like Cameras and mobiles but only handful of them actually use internet to purchase the same. Mobile downloads and personal items were purchased by 22 percent and 20 percent of online shoppers respectively.

This indicates that e-commerce players were able to generate traffic on the website but couldn’t convert visitors into customers. Majority of respondents have revealed reasons related to lack of purchase were ‘lack of trust’ (99 percent) and ‘fulfillment issue’ (77 percent) followed by ‘shopping experience’ (69 percent), physical orientation of the product (63 percent) and ‘no need of online shopping’.
2.3.3 Reason for not Purchasing Online

As shown in Figure 2.14 IAMAI has identified several reasons that are responsible for non-purchase of goods online.

Figure 2.14:- Reasons Given by Respondents for Not Purchasing Online

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No need for shopping online</td>
<td>47%</td>
</tr>
<tr>
<td>Want to see product before buying</td>
<td>63%</td>
</tr>
<tr>
<td>Shopping Experience</td>
<td>69%</td>
</tr>
<tr>
<td>Fulfillment Issue</td>
<td>77%</td>
</tr>
<tr>
<td>Lack of Trust</td>
<td>99%</td>
</tr>
</tbody>
</table>

(Source: Report of Online Commerce: March 2011, IAMAI)

As per the Figure 2.14, lack of trust is a major reason for not purchasing online, followed by fulfillment issues.

1. Lack of Trust

Most of Non-shoppers do not shop online due to lack of trust in Internet for doing transactions. This includes reasons such as worried about personal security, distrust with Internet for shopping online, distrust with quality. In
other words, this lack of trust primarily leads to security concerns one has while transacting over Internet.

2. Security Concerns

Most Net commerce shopping happens through credit or debit cards. Indians however are still concerned about their personal security. They still prefer to transact in person than depend on Internet.

3. Uncertainty About Product And Service Quality

Unlike conventional shopping, buyers worry about online shopping. They aren’t sure if they will get good quality products online.

4. Fulfillment Issues

When person is transacting over Internet, they are not sure who is sitting across the table. They are worried about delivery of goods. It includes issues such as delay in or non delivery of goods.

5. Non Delivery Of Goods

Apart from shopping experience and convenience, one of the major factors for net commerce not taking off in India as expected is due to the on-time dispatch of goods. Delivery delays invariably have left people wondering if their money was ‘lost’ in the transaction and are averse to conducting future online transactions. Merchants start order processing and shipping only after the receipt of money through Credit Card or online banking payment.
6. Shopping Experience

Buying a product or service is many times associated with shopping experience. It includes shopping experience includes fun, entertainment and the satisfaction derived from shopping of product or service. While transacting online, most users lack this experience and it has resulted in people refraining from shopping online.

7. Lack of touch & feel

Touch & feel of product being purchased lacks while shopping online. Online shopping is best suitable for products and services that do not require touch & feel experience by buyer. Probably that’s one of the reasons for books & ticketing being more successful than apparels while shopping online.

2.3.4 Major Barriers to E-Commerce Development in India

As an application of the internet, e-commerce is a booming new business model in India, as an adjunct to the growth of internet usage. India is one of the most attractive ecommerce markets in the world in terms of market size, internet user numbers, and potential B2C users; but in reality, India’s e-commerce is lagging far behind other countries in terms of market size and scope. Many studies have been undertaken to investigate the reasons for this discrepancy in internet and e-commerce uptake in China, and Table 2.5 summarizes the barriers to e-commerce identified in previous studies, and some important barriers are analyzed in more detail.
### Table 2.5: Barriers to Development of E-Commerce in India

<table>
<thead>
<tr>
<th>BARRIER</th>
<th>LITERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Limited Internet access</td>
<td>✶ Mr. Rajiv Rastogi (Director Dept. of Information Technology, India)&lt;br&gt;✶ Mr. Pankaj Narayan Pandit (Head, Airlines Vertical 23rd February 2010)</td>
</tr>
<tr>
<td>2. Slow Internet Connectivity</td>
<td>✶ Mr. Rajiv Rastogi (Director Dept. of Information Technology, India)</td>
</tr>
<tr>
<td>3. Access costs are high</td>
<td>✶ Mr. Rajiv Rastogi (Director Dept. of Information Technology, India)</td>
</tr>
<tr>
<td>4. Connections are unreliable</td>
<td>✶ Mr. Rajiv Rastogi (Director Dept. of Information Technology, India)</td>
</tr>
<tr>
<td>8. Lack of Proper Cyber Laws</td>
<td>✶ IRCTC, April 2009, Purnachandra Rao Gudipati Consultant, Capgemini</td>
</tr>
<tr>
<td>9. Lack of Information of Product</td>
<td>✶ Sudeep Tarafdar Senior Consultant, IBM</td>
</tr>
<tr>
<td>10. Lack of payment Channel</td>
<td>✶ Radhakrishna Marar Business Analyst, Oracle</td>
</tr>
<tr>
<td>11. The absence of bargaining/negotiation power</td>
<td>✶ IRCTC, April 2009, Anurag Shah 2009 (CEO, Technology Services, Omnitech InfoSolutions Ltd)</td>
</tr>
</tbody>
</table>

(Source: Developed for this Research)
Some of the other barriers studied by Foreign Researchers are mentioned in

<table>
<thead>
<tr>
<th>BARRIER</th>
<th>LITERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Education in e-commerce</td>
<td>Zhang et al. (2005)</td>
</tr>
</tbody>
</table>

(Source: Developed for this Research)

1. Speed and cost of internet access
   The low speed and high cost of online access were major barriers to access e-retailing in India. The average internet speed in the world was 1.5 mbps while the average speed of internet in India is only 772 kbps. In high broadband connectivity India ranks 80th with 0.4 percent connections measured to have a speed excess of 5 mbps. In India the average rate of broadband connection is very expensive compared to China, Japan, Western Europe and USA. The signals are also fluctuating which is again a negative factor for online shopping. Also broadband growth remains subdued in India. As per TRAI report, in the month of January, 2011 total of 0.29 million broadband subscribers were added taking total to 11.21 million, which is showing growth rate of 2.70 percent.

2. Limited Internet Access
   Many technologies and service plans for Internet access allow customers to connect to the Internet. In 20th century, dial-up connection was the means for Indian consumer to access internet. But in 21st century broadband became popular as a means of Internet access. So India has limited Internet access compared to world. Though it has shown signs of improvement as in 2011, the
internet access increase as common methods of access are Dial-up, ADSL, Internet over cable television lines, Wi-Fi hotspots, wireless internet service provider, mobile broadband and internet satellite.

3. **Not Sure About Product Quality**

Product Quality is the most important concern when consumer purchase online due to the nature of the virtual environment, consumers has difficulty identifying the product quality. A number of times there is a clash between the descriptions of product and consumer understanding. A number of times e-commerce sites will not display the image of the product, which will make difficult for consumer to purchase online as he is uncertain about the looks.

**Figure 2.15:- Condition Presented by Online Retailer**
As shown in the Figure 2.3, the online retailer has placed a condition which shows that “Actual product may differ from the image shown.” These types of conditions will create doubt into the mind of the customer related to quality of the product and consumer will hesitate to purchase. So product quality also works as a major concern in Indian online retail. Retailers must improve their operations and develop the trust related delivering better product quality.

4. **Security of Online Transaction**

Companies require protection for their system from hackers in addition to enhanced commercial credibility; customers often worry about theft of their personal information, such as a credit card number. Futurebazaar.com was hacked by hackers and was down for two days. So e-commerce players must develop proper technological and legal tools to enhance the security of e-commerce websites.

5. **Education**

Education is another barrier towards the success of e-commerce. Though the awareness of e-commerce is increasing in India as even at a graduate level the introduction of e-commerce is provided. So the limitation related to education can be easily eliminated in near future.
2.4 Introduction to E-tailing

2.4.1 Definition of E-tailing

E-tailing which is also known as etailing is the selling of retail goods on the internet. E-retailing is a common and widespread class of applications used by retailers to sell products and services to users on the web. E-retailing is synonymous with business to consumer (B2C) transaction.

A classic definition is used as the conceptual framework for e-tailing provided by Turban et al. (2006, p.83) is as followed:

“Retailing conducted online, over the internet”

Definitions given by other researchers are as followed:

According to Kritisundar Paul and Anand “E-retailing uses internet as a medium for customers to shop for the goods or services.”, while Tobias Gunnesson and Klas Soderlund defined as "E-retailing is a sub-genre of B2C where the core offer is a product and not a service and where the core product is a physical good. This definition excludes services and information goods but includes physical goods bundled with accompanying services, for example warranty.

Many researchers have provided similar definitions and have noted that the concept of e-retailing is same as that of B2C e-commerce. Wang (2002,) provided a broad definition of e-retailing which state that “The selling of goods and services to the customer market via the internet”
Along with selling Retailers also include other applications online like physical retail outlet which include:

1. **Selling goods and testing new products**
   Retailers use internet as a tool to test new products or services. This strategy will reduce the risk in the early stages of new product sales. Retail giant Wal-Mart also has adopted this strategy to sell some products online which were not stocked in its store.

2. **Market Research**
   Retailers can also use their online presence as a tool to collect valuable information from customers to forecast future demand. In the offline environment, such data are difficult to collect and analyze. Today almost all the online players have developed call centre and share your feedback facility with the help of which they can exactly analyze the problems faced by customers during shopping and make it improve.

3. **Promotional Tool**
   A Website can also be used as a tool to conduct promotional experiments due to the wide reach of internet and the low cost.

4. **Marketing tool**
   A website is an effective channel to communicate with customers. Two way communications is possible on internet. Organizations do not need to rely solely on one way communication media such as TV and newspaper. As a new communication channel, internet can provide benefits to retailers like low costs, personalization and continuous communication. By developing better understanding with customers through customer relationship management, marketers can also introduce relationship marketing technique in the retail market to provide personalized service.
2.4.2 Types of E-Retailing

E-retailers are classified into two categories which are:

1. **Pure-play e-retailers:**
   They sell directly to consumer over the internet without maintaining a physical sales channel. All of their business transactions and processes are completed online. This type of online retailers usually forms the strategic partnership with other companies in order to provide better customer service. The example of pure-play e-retailer is eBay.

2. **Click and mortar retailers:**
   Their business uses both the online as well as offline channel for selling products. These players have some advantage over pure play retailers such as established brand image, existing complete distribution channel, established brand awareness and customer loyalty.

2.4.3 Models of E-Retailing

There are several models for e-retailing and these include:

1. **Specialized e-store**
   Specialized e-stores can be bifurcated by two ways which are specialization by product line and specialization by function. When company has specialization by product line, a store decides to pick up one particular product line e.g. Books, cloths and sells only that particular product line. Online portals like taggle.com, a specialized e-store focusing on selling electronic products or playgroundonline.com, a specialized e-store focusing on selling sport related goods.

   In contrast to that, a new kind of specialization is emerging on the internet is specialization by function. An example of this is lastminute.com. Lastminute.com sells gifts, travel tickets and other items for the last minute
shoppers who want to purchase these items at a very short notice. Normally when one purchases an item at a very short notice (e.g. travel), he often pays premium which is an extra amount for the convenience of booking the travel at the last minute. At the same time, there will be some sellers, e.g. airlines companies; they have empty seats at the last minute which they are unable to fill. So lastminute.com bring together travelers who want to book at last minute and airlines which has got spare capacity at the last minute and allow the former to buy from the latter at the last minute. So purchaser may get his airline ticket at a reduced price. It is a win-win situation and unique kind of specialization.

2. **Generalized e-stores**

This category of e-retailing model sells a large number of product lines rather than confining themselves to just one or a very few product lines. Normally Infibeam, FutureBazaar are generalized e-stores.

3. **E-mall**

In an e-mall, cyberspace is rented out to cyber e-store that wishes to sell their goods. This store could be a specialized or generalized e-store. So a number of product lines can be present in a single e-mall. In an e-mall, each store is under its own management. E-mall management is responsible only for creating cyber space that can be rented and can support service and marketing of that mall. Thus it provides a web hosting service.

4. **Direct selling by the manufacturer**

A number of manufacturers with well known brand name products have chosen to use the internet to carry out direct selling via the internet. One of the best known brands is Dell computers. This approach permits mass customization to meet customer preferences. This direct selling by
manufacturer has an important disintermediation effect leading to reduce cost to the end of customer and increased profitability to the manufacturer. This approach can be used by manufacturers of well known brands of products because customers are already aware about it. Also manufacturer must have thorough understanding of customer preference; otherwise he has to rely on customer knowledge of retailer. In this method manufacturer has to remain cautious at a time of setting price as there are maximum chances of different priced charged in online and offline format may lead to dissatisfaction from customer side. To avoid this conflict, retailer should charge same price in online format too but should provide more service or additional features with the product.

5. **Brokers or Intermediaries**

This class of e-retailers is essentially an extension of the notion of a broker from the physical to cyber world. A broker is an intermediary who

a. may take an order from a customer and pass it on to a supplier.

b. may put a customer with specific requirement in touch with supplier who can meet those requirements.

c. may provide service to a customer, such as a comparison between goods, with respect to particular criteria such as price, quality etc.

Thus broker provide comparison shopping, order taking and fulfillment and services to a customer.
2.4.4 How e-retailing website will work?

1. The customer visits the site and will select the item to be purchased.
2. He will confirm/finalize the item list selected and checkout.
3. He will enter credit card/ debit card information to make the payment.

Figure 2.16:-Graphical Representation of Functions of E-Retailing Website.
4. The payment information entered by the user is getting checked with banker via payment gateway and authenticated.

5. The payment will be credited to retailer account and an order confirmation is shown to the visitor along with order detail and shipping information.

6. The customer will get the confirmation of payment. Customer will be able to track their order status and an SMS/email update will be sent to the customer on the product or service delivery.

2.4.5 Various Payment Modes in E-retailing

1. Internet Banking

Internet banking refers to carrying out banking functions through internet. Core banking is a business between banking organization and small or retail customers. In core banking, the bank branches are networked to offer the services to their customers. These services are depositing and loan money. After the roll out of core banking in India, majority of banks are providing net banking facility free of cost. Internet banking is one of the popular methods of paying online. In this method the customer need to select the net banking option and pay to the seller’s account through net banking account. For online purchasers, the main concern is of security of the bank account. There are certain factors that one must follow for secure internet banking.

1. The bank website should have encryption software.
2. One should avoid sending sensitive information like password or PIN by e-mail or SMS to anybody.
3. One should alter his/her password occasionally.
2. **Debit Cards and Credit Card**

A Credit Card is a small plastic electronic card made according to ISO 7810 standard specification which is used for settling the payments. Debit Card is a small plastic electronic card looking very similar to credit cards. The important difference is that debit cards use savings account balance for payments. These cards work almost similar to physical way where customer swipe card at payment counter. In online purchase instead of swiping, customer has to enter the card number and security code. For additional security purpose, RBI has asked all the banks to use verified Visa and Master Card Secure Code to authenticate buyers. So the buyer will be asked to verify identity with these additional layers of security methods.

There are around 190 lakh credit and 1,900 lakh debit cards in India, but there are just 11 transactions per credit card and one transaction per debit card annually. One of the major issue that need to focus is Debit card fees refer to the fees which is charged when one makes purchases with his debit card. Every financial institution charges processing fees made with the help of a debit card. This charge is called debit card fees. When one uses a debit card for making purchases, he is asked if he would like his transaction to be treated as credit or a debit transaction. One is required to know why the merchant asks this. The kind of transaction one selects determines the debit card fees. Using the debit card and opting for a debit transaction makes it an online transaction and opting for a credit type of transaction makes it an offline transaction.

When an offline transaction is opted for, the debit card fees imposed is 2 percent of the total purchases made. This debit card fees may vary from bank to bank issuing the debit card. This debit card fees will be borne by the retailer. Adding up 2 percent debit card fees each time amounts to a hefty sum for the retailer. This debit card fees is taken by the bank which issues the
debit card to the card holder. In case of online debit transaction the debit card fees imposed is very meager. The retailers and the merchants usually prefer online debit transaction as they have to pay very little debit card fees. The above mention reason also hinders the growth of credit card and debit card in India.

3. **Online Fund Transfer**

Online fund transfer is also a mode of payment used in online purchase in which the buyer transfer funds from his account to sellers account manually. But in this method buyer must have the perfect details about the seller’s bank account. Ones the buyer has made payment, he should send a message to seller about the payment.

4. **PayPal**

PayPal, a subsidiary of eBay Inc. is an e-commerce business allowing payments and money transfer to be made through internet. A PayPal account can be funded with an electronic debit from a bank account or by a credit card. The recipient of a PayPal transfer can request a cheque from PayPal, establish their own PayPal deposit account or request a transfer to their bank account.

PayPal performs payment processing for online vendors and commercial users for which it charges a fee. It may also charge a fee for receiving money, proportional to the amount received. The fees depend on the currency used, the payment option used, the country of the sender, the country of recipient, the amount sent and the recipient’s account type.

The service allows members to send money without sharing financial information, with the flexibility to pay using their account balances, bank accounts, credit cards or promotional pricing. As PayPal is a financial institution under Gramm-Leach-Bliley Act, it can’t disclose its account holders’ non–public personal information to third parties. Only certain web
stores accept PayPal because of the exchange rate fluctuations, many online shoppers in India don’t accept PayPal payments.

5. **Demand Drafts and Money Orders**
   Majority of stores in India accept Demand Draft and Money Order. Both instruments are pre-paid; the seller can easily cash them and process orders.

6. **Cheques**
   It is time consuming process and slightly expensive as seller may ask to add additional amount if it is an outstation cheque. Sending cheques for online purchase is very easy. The buyer has to write a cheque in seller’s name and the banking system will take care of rest. Here buyer has to be sure that he has enough funds in his bank when using this method as sending a bouncing cheque is illegal in India.

7. **Cash on Delivery**
   Nowadays one of the popular payment tools while purchasing online is Cash-On-Delivery. It means that the buyer will pay only when he/she receive the product. Indians are always suspicious about online shopping and this method is an answer to alleviate the suspicion. Online sellers are also using this method to gain trust among the buyers.

8. **Cash before Delivery**
   In this method the service provider will send a proforma invoice in an envelope through courier within 3 to 4 working days, the courier will deliver this proforma invoice at the delivery address and collect cash equivalent to order amount. Once the cash is collected by the courier, they will inform service provider and service provider will expedite the delivery of product. This method is time consuming one.
9. Interest Free EMI

Some websites also offer Interest Free EMIs as a payment system on selected items. Buyer can purchase product and enjoy convenience of paying in 3 to 6 monthly installments using credit card.

10. Mobile Payment Solutions

Mobile payment is an alternative payment method in which instead of paying with cash, cheque or credit card, a consumer can use mobile phone to pay for purchases. According to KPMG report, Mobile transactions will require four years to become widely accepted by consumer globally. Banks, credit card companies, telecom operators and online service providers are expected to benefit from the mobile payment transaction. Telecom operators like Airtel, Vodafone, Idea and handset maker Nokia have partnership with banks for mobile payment service.

2.4.6 Procedure to Purchase Online

Online shopping has increased tremendously over the last couple of years. Now almost every product/software/hardware can be bought online. Though there is no one specific procedure to purchase online. But majority of websites follow below mention procedure. The procedure is as followed:

1. First of all customer has to register himself on a website. The registration stage is shown in Figure 2.17. Customer has to make sure that he is entering all information correctly as this information will be used for all transactions. Customer has to mention his e-mail address, customer ID, password, address, zip/postal code of city, mobile number. Customer has to read all the terms and conditions of a service provider and then proceeds further. Certain websites
will allow the consumer to purchase product without registration. In this method customer has to mention email and password and has to mention the address on delivering the product.

**Figure 2.17:- Registration Stage**

2. Now whatever the product customer wants to purchase from the website, he just has to mention the name of the product in the search box present on the top in majority of websites as shown in Figure 2.18 with the help of arrow.

As soon as customer hit Enter, the next page will show the search results as shown in Figure 2.19. The customer can sort the product by price; lowest first or highest first. Also majority of websites clearly mention categories available with them. The customer can click on the category that he wants to purchase.
Figure 2.18: - Search of Product as per Customer Requirement

Figure 2.19: - Search Result as per Category
3. Once the customer has decided a particular product to buy, the next step is to check the feedback given by customers.

As shown in Figure 2.20 certain websites display the comments mention by visitors or customers who have purchased the product. Customer can read the comments and look at the stars given by customers who have purchased the product. Higher the stars and positive comments means higher is the reliability.

**Figure 2.20:** Recommendation Related to Products given by Customers
4. As soon as customer is done with checking feedback points, the next step is to read information regarding product. By putting the courser on the image of the product, the customer can see quick look option and by pressing the option the customer can see larger image of the product. The Figure 2.21 represents the enlarge image of camera.

This option allows customer to have a close look of the product. Though image of the product cannot substitute physically holding or examining the product but it helps in creating a virtual product display.

**Figure 2.21:- Enlarge Image of a Product**

As shown in Figure 2.22 along with the image, the customer can read the detailed description of the product along with warranty and shipping details. Some services providers also provide free delivery if the customer is in the same city.
5. Before placing the order if the customer has some doubt regarding availability of the product, he can contact seller in order to get the information regarding product (Shown in Figure 2.23).

Figure 2.23: Customer Support Service via Human Assistance
6. As soon as the customer has received all the information regarding the product and if he/she is satisfied with the product, it’s time to buy the product.

Figure 2.24: Procedure to Buy Product

![Procedure to Buy Product](image)

7. By selecting the number of quantities and size (if required) related to product as shown in Figure 2.25, the customer can click on Buy. In case customer wants to purchase more products, then he should select Add to cart and continue shopping.

Figure 2.25: Quantity of Product to be Purchase

![Quantity of Product to be Purchase](image)
8. At the time of making purchase of more than one product, the customer can select product and than he can add to wish list or customer can directly click on Buy Now. If customer select add to wish list then in next stage he has to add that product into shopping cart by pressing Add to shopping cart button. If the customer will select Buy Now option then he will move on to next page which will display Order Information as shown in Figure 2.26.

**Figure 2.26:- Shipping Cart**

![Image of Shipping Cart]

At this time the buyer can select the quantity of product that he wants to purchase. If the buyer wants to drop any product, than he can also drop the product at this time.

9. The immediate next page after clicking Buy It Now or Proceed to checkout shows complete item cost including shipping, item quantity and shipping address (that the customer has entered while registering on website) and various payment modes as shown in Figure 2.27. The customer can select
mode of payment appropriate to him and then move further by click on Continue.

**Figure 2.27:** Multiple Payment Modes offered by E-Retailer

The next page will show the complete order details as shown in Figure 2.28. The customer can confirm order and move to payment procedure. Payment procedure will take some moments, depending upon type of the payment option the customer has selected and once it’s completed, the customer will get Payment summary.

**Figure 2.28:** Details of Order
10. The item that customer ordered may take 2 to 3 Days (can be more) to reach at the address. Once the customer received the item, he can leave feedback for the seller if he wishes.

2.4.7 Advantages of E-retailing

E-retailing offers unique advantages to the consumer that no other form of retailing can match. E-retailing is beneficial to both consumers and retailers. The advantages to consumer include:

1. More vendors and alternatives available
   In the online environment, there are more vendors and alternatives available to customers. So customers can easily reach all the e-retailers around the world.

2. Comparison is much easier
   At a time of online shopping it is easy for the customer to switch between different retailers’ website. So comparison about price and feature of certain products easier compared to off-line purchase.

3. Price of merchandise may be cheaper
   Due to the cost saving for the retailers and to cope with the competition online, merchandise sold online may be cheaper than those sold in traditional way.

4. Time saving and convenience
   A number of people prefer to shop online because it will save a lot of time and it will also eliminate hassle to stand in queue for billing or may save the time and cost of transportation. Along with that all the products that have been ordered online will be delivered to the home. Customer can also purchase online at any time as per their conveniency.
The advantages to the service provider

1. **Cost saving**
   Online business will significantly bring the cost down, especially pure play e-retailers. Online retailer can cut a lot of cost because they do not need to build physical store and they also have less paper work compared to offline retailers.

2. **Reach more customers**
   Online retailers have the opportunity to enlarge their customer database. It helps e-retailers to reach more customers than before.

3. **Better customer service**
   Retailers can personally attend each and every of their customers with personalized websites, buying suggestions and personalized special offers. Further they can give customers the advantages of incentives and sales promotions online including coupons, special offers and discounts.

4. **Customized product placement**
   It is easy for the e-retailer to make any change in user display based on previous transaction, so that the visibility of goods that the users prefer the most will increase. Thus placement can be designed based on the context of the previous purchase.

### 2.4.8 Disadvantages to E-Retailers

1. **Limited only to online users**
   The users of internet are limited so e-retailer does not have access to all customers. Even out of web users only a limited number of people prefer to purchase online.
2. **User-friendliness**

All the websites are not user-friendly. Some websites have complex design which may be difficult for the customer to access and purchase online. Graphics presentation and aesthetics may not be as compelling for a website as in case of physical retail store.

3. **Trust, security and privacy concern**

It is difficult to develop trust on e-retailer as some times customers do not even know them. At a time of paying via credit card or debit card there is always a concern about trust that company will not misuse the number. Further there has been a case of online hacking so customer is concern about security. There is a concern about the privacy as e-retailers will not share our personal information like mobile number, address with anyone else.

4. **Unsuitable for certain product categories**

Product categories that require relatively higher customer involvement, it is difficult to adopt the e-retailing format as it is ineffective to provide sufficient information to the customers. Examples include retailing of products like clothes, cosmetics etc. Most of the customers prefer to buy books or event tickets from internet as the information required for making purchase and involvement required is low. But in case of garments customer may want to know a number of things like looks, size, feel on the skin etc. In offline retailing these types of problems will not arise.

5. **Shopping is still touch-feel-hear experience**

In countries like India where people don’t suffer from ‘time-poverty’, shopping is considered to be family outing. Hence these types of problems also create a problem of customer retention.
2.4.9 Success Factors for E-Retailing

The success of e-retailing depends on a number of factors that are required to be taken into consideration as prima-facie, missing even a single small consideration is quite liable to create a greater negative impact on entire business since in e-retailing there is no direct contact between customer and business.

Following are some of the factors to be taken care of for the success of e-retailing.

1. **Strong Branding**
   The service provider has to develop brand name and has to create positive image and trust in the minds of customers regarding their website compare to the competitor. A number of e-retailers have failed such as pets.com, garden.com in 2000 because they were not able to build strong brand image and customer loyalty in target market. For developing strong Branding, the company can appoint a brand ambassador to whom people consider as reliable. Company can focus on social responsibility. If company is able to develop trust in the minds of customers than only they will become successful.

2. **Unique Merchandise**
   E-retailers can achieve competitive advantage by selling unique merchandise online. Along with selling large product mix, companies must sell products which are unique in feature, size, shape, color along with customization if possible.

3. **Competitive Pricing**
   E-retailer has to ensure that products are sold at competitive pricing to attract customers and to stay in the competition. Because competitive pricing may pull price sensitive customers to purchase online. The competitive pricing finds scope from potential decrease in charges and expenditures that retailer had to bear while in brick and mortar mode of marketing. But retailers have to be careful at a time of adopting competitive pricing as if e-retailers were not
able to pull the crowd at competitive pricing than low price margin leads to loss and even close the business.

4. Better Customer Relationship Management

It is very difficult for e-retailers to retain customers. But by developing relationship with the customers e-retailers can build loyalty. Along with sending sms and mail during occasions, e-retailers can also developed CRM programme by offering different types of membership.
Global e-commerce, including travel and auto purchases as well as online retail sales will increase 13.5 percent annually for the next four to five years and reach an estimated US $1.4 trillion in the year 2015 according to Cisco Systems Inc’s Economic & Research Practice\textsuperscript{11}. The global retail online sales grow by 14.5 percent in the year 2009 and reached at US $348.6 billion USD\textsuperscript{12}. Electronics was the largest segment in global retail sale contributing around 22.6 percent.

**Figure 2.29: Comparison of Growth of Traditional V/S Online Retail (Year 2006-2009)**

![Chart showing growth comparison between traditional and online retail](chart)

(Source: EIU, Datamonitor, IMAP)

While the online retail sales sector continues to outperform, its magnitude remains small with 2.5 percent of total global retail sales. On an average basis, globally, online sales accounts for 6.6 percent of total sales for the top 100 retailers in the year 2009\textsuperscript{13}. As per IMRG the global e-retail sales increased by almost 25 percent to 591bn euro in the year 2010.
As per Forrester Research, September 2010, between the year 2005 and year 2009, the global online population increases from 1 billion to more than 1.6 billion and by the year 2014 it is projected to grow by another 42 percent, reaching at a level of 2.3 billion. Most of the growth in online population is expected to come from Asia-Pacific, Middle East and Africa, which had very low internet penetration of 19.7 percent as of June 2010 and will reach at 54.9 percent till the year 2014.

Table 2.6:- Global Online Population (In Millions)

<table>
<thead>
<tr>
<th>Region</th>
<th>2009</th>
<th>2010</th>
<th>2012E</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>259</td>
<td>266</td>
<td>292</td>
</tr>
<tr>
<td>Europe</td>
<td>415</td>
<td>475</td>
<td>500</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>645</td>
<td>846</td>
<td>1033</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>178</td>
<td>204</td>
<td>255</td>
</tr>
<tr>
<td>Middle East and Africa</td>
<td>135</td>
<td>173</td>
<td>241</td>
</tr>
<tr>
<td>Total</td>
<td>1632</td>
<td>1964</td>
<td>2321</td>
</tr>
</tbody>
</table>

(Source: Forrester Research Inc. and Internetworldstas.com, June 2010)

North America and Europe will represent 34.1 percent. Emerging Asian countries such as Vietnam and Indonesia are expected to have nearly 10 percent of global online users by the year 2014. As per Data monitor, July 2010 global online retail sales are expected to be $ 778.6 billion USD, increasing at a CAGR of 22.2 percent till the year 2014.

The US remains biggest market for online retail with 37.2 percent market share. Total spending reached US $129.8 billion USD in the year 2009. In the year 2009, 154 million US consumers made online purchase, representing 67 percent
of those who use internet and 4 percent increase from the year 2008. The research and consulting firm Forrester Research Inc. reported that online retail sales will grow by 10 percent year on year for next five years and web will influence 53 percent of US retail sales by the year 2014. By the year 2014, e-retail sales will reach at US $ 249 billion contributing 8 percent of total retail sales\textsuperscript{14}.

European e-retail sales grew by 18 percent from the year 2009 to the year 2010 and are expected to grow 13 percent in the year 2011. The number of online buyers in Europe will reach 205 million from 157 million in coming years. And e-retail will contribute to 10 percent of total retail sales by the year 2012. As per Forrester Research February 2011; Europe e-retail sales will grow from US $ 112.1 billion in the year 2010 to US $ 184.6 billion by the year 2015, at a compound annual growth rate of 10 percent\textsuperscript{15}.

E-retail sales in Brazil are also expected to increase by a compound annual growth rate of 17.5 percent over next five years, Forrester Research predict in April 2011 report. The e-retail sales were S7.9 billion in the year 2010 and projected to reach at S 9.8 billion by the year 2011 and S 19.2 billion by the year 2015.

Chinese online retailers are also poised for massive growth. About one-third of China’s 420 million internet users shop online\textsuperscript{16}. As per Analysis International research data, the transaction value Chinese B2C online retail market has reached S 7.3 billion in first quarter of year 2011. Taobao is the market leader (31.4 percent) followed by 360buy (10.2 percent) and Joyo (Amazon China, 2.3 percent)\textsuperscript{17}.

South Africa has also shown tremendous growth. The online Retail in SA 2011 research report reveals that the spent on online retail goods in South Africa
surpassed the R2-billion mark in 2010 and climbed to R2.028 billion, growing at 30 percent compared to 2009\textsuperscript{18}.

2.4.11 Indian E-Retail

According to Digital Route LLC estimates, in India the retail e-commerce market in 2008 was tiny fraction of the total retail market which was 0.1 percent and is expected to reach S 4bn by the year 2013. Retail e-commerce share will increase rapidly due to much faster growth compared to overall retail market.

Table 2.7:- B2C E-Commerce Sales in India (in S MM)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B2C E-Commerce (Y/Y Change)</td>
<td>$325000</td>
<td>$365000</td>
<td>$415000</td>
<td>$475000</td>
<td>$545000</td>
<td>$625000</td>
<td>14.6 percent</td>
</tr>
<tr>
<td>Total Retail E-Commerce* (Y/Y Change)</td>
<td>$200</td>
<td>$250</td>
<td>$450</td>
<td>$675</td>
<td>$2000</td>
<td>$4000</td>
<td>107.1 percent</td>
</tr>
<tr>
<td>E-Commerce as percentage of Retail ( In Percentage)</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.4</td>
<td>0.6</td>
<td></td>
</tr>
</tbody>
</table>

*Excludes sales of travel, financial services, online classification and event ticket.

(Source: PhoCusWright; Digital Route LLC estimates)
As per the prediction, retail E-commerce will touch $ 4bn by the year 2013 from $ 450 million in the year 2010 which means its penetration will achieve 0.6 percent which is far below US at 6 percent and China at 7 percent. A study conducted by ASSOCHAM found that 65 percent of Mumbai residents shop online. The rising fuel price is keeping most of the shoppers indoor and encouraging them to embrace the new online mode of shopping. The study conducted in 10 Indian cities also claims that the online retail industry in India is likely to be worth Rs. 7000 crore by the year 2015. The Nielsen Company has also announced findings of its ‘Global Online Shopping Report’ conducted in September 2010. In India they have done survey of 502 samples. The findings of survey revealed that out of total respondents 23 percent had never shopped online.

Figure 2.30:-Sources of Recommendation for Online Purchase

<table>
<thead>
<tr>
<th>Source of Recommendation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
<td>64</td>
</tr>
<tr>
<td>Family</td>
<td>71</td>
</tr>
<tr>
<td>Online product reviews</td>
<td>29</td>
</tr>
<tr>
<td>Product websites</td>
<td>24</td>
</tr>
<tr>
<td>Discussion forums</td>
<td>9</td>
</tr>
<tr>
<td>Search engines</td>
<td>15</td>
</tr>
<tr>
<td>Social media sites</td>
<td>6</td>
</tr>
<tr>
<td>TV</td>
<td>19</td>
</tr>
<tr>
<td>News Source</td>
<td>10</td>
</tr>
<tr>
<td>Influential bloggers</td>
<td>3</td>
</tr>
<tr>
<td>Unknown peers</td>
<td>3</td>
</tr>
</tbody>
</table>

(Source: ‘Global Online Shopping Report’ conducted in September 2010)
The finding suggests that along with friends and family, the major sources of recommendation for purchase online is online product review given by the shoppers of the product.

2.4.12 ONLINE SHOPPING PROVIDERS IN INDIA

1. HomeShop18.com

HomeShop18 is the online and on-air retail marketing and distribution venture of Network18 group that was launched as India’s first 24 hour Home Shopping TV channel on April 9, 2008. HomeShop18 is a venture of the Network18 Group, India’s fastest growing media and entertainment group that operates India’s leading business news television channel like CNBC TV18, CNBC Awaaz.

HomeShop18 has partnered with the best brand owners in India like Apple, Motorola, Reebok, Dell, Whirlpool, Nokia, VLCC, Fabindia and many more to provide superior quality at an exceptional value to final consumer. The company has huge variety of products which include books, mobiles, electronics, computers, apparel, jewellery and so on. To make aware about the product and to explain the usage of the product, the company is giving honest demos, providing 15- day- Money-back Guarantee (applicable on products that have money back guarantee specially mentioned), 24 hours customer care, online customer review, well designed frequently asked question section, special pricing . The company also offer free shipping on selected products ordered through website. The delivery is very quick (3 to 5 days). Consumer can also track shipping order from the website.

HomeShop18 has won a number of awards that include “Award for Excellence in Retailing” at Indian Retail Forum 2010, “Best Shoppers Insight Model” at Asia Retail Congress 2010 and so on. In its online format,
HomeShop18 provides a number of payment modes which includes payment by debit/credit card, cash on delivery, cash before delivery, payment by DD/Cheque, Net Banking, Mobile Payment option, Internet Free EMIs. Along with that the company has secured payment system as company has participated in VeriSign Secured Seal programme. All the personal information is encrypted by Secure Sockets Layer (SSL) software when it’s transmitted to us via internet to any website address beginning with https. Today company has emerged as the largest multimedia retailer in India with a user base of 2.5 million users\(^{19}\).

2. Future bazaar.com

FutureBazaar.com is the e-commerce arm of the Future Group. FutureBazaar is an integrated shopping site where consumers are able to buy products from website. Consumers can also purchase products from their flagship stores that include eZone, Pantaloons and Big Bazaar.

FutureBazaar delivers across more than 1500 cities and towns in India covering 16,000 pin codes\(^{20}\). FutureBazaar carries genuine products and offers manufacturer's warranty too. FutureBazaar sell wide product categories that include computer, clothing & accessories, home and kitchen utility, mobile, electronics and so on.

3. eBay

Founded in September 1995, eBay is a global online marketplace where practically anyone can trade practically anything. eBay community includes more than 90 million active users from all around the world\(^{21}\). Worldwide leader eBay is doing well in India. Backed by a powerful brand, customer loyalty and experience in online retail, it has generated good traction in India. eBay entered to India by acquiring Baazee.com in June 2004 for Rs. 230
eBay first started off as an auction site for individuals to sell their products to other individuals. But now it can be considered a B2C portal as well because business corporates are marketing their products to get end users interested in their goods. India has community of over 2.5 million registered users across 2471 towns in India. eBay users trade in more than 50,000 categories including antique, computer, IT and office, toys, dolls, stamps, comics, magazines, glass, jewellery and so on. The company uses the latest VeriSign SSL encryption technology to protect details related to payment.

4. Flipkart.com
Flipkart was founded in the year 2007 by two driven IIT graduates Sachin Bansal and Binny Bansal, launched as an online bookstore for India. Within two years and workforce no more than five people, purely through word of mouth of amazing service, Flipkart became the Top 100 Indian sites and was credited for being India’s largest online bookseller with over 10 million titles on offer. Today they have huge product category that include mobile phones, gaming consoles, electronics, music and movies. Today company has more than 1000 employees. Flipkart has 24*7 customer support service, multiple payment options; secure payment system, 30 Day replacement Guarantee.

5. Infibeam.com
It was established in the year 2007 as online book retailer. Today the company has huge product category including books, mobile phones, computer and accessories, cameras, watches, health equipments, chocolates, flowers, combo gifts and much more. And company is offering all the products at guaranteed lowest price. Infibeam has an excellent search engine and providing editorial as well as technical specification related to product. Company has also developed customer relationship management in the form of Magic Box. The company has 24*7 customer service and company is multiple payment options. Company has placed themselves by providing unique services like
same day delivery or mid night gifts in selected cities. Company has secured payment option with VeriSign Security.

6. Naaptol.com

It was launched in January 2008. Naaptol has grown to become India’s leading comparison based social shopping portal, the one stop destination for all shoppers and merchants. Naaptol doesn’t sell the product but it helps people to buy product. Naaptol claims to offer a trusted network on the website, a comparative price list as well as list of local sellers as per user’s locality is displayed. From nil sellers, Naaptol has grown to 500 stores in its portfolio and still adding more. There are around 470 brands associated with naaptol. Company has customer support service and company is offering multiple payment options. Company has not mentioned anything about payment security on front page of site.

7. Shopping.indiatimes.com

Indiatimes.com is owned by Times Internet Limited which has been in the internet space for over ten years and claims to be a very large and successful internet company in India. Indiatimes.com, a shopping portal is one of India’s most popular e-commerce website. It has widest range of consumer electronic items, apparel, accessories, gift items, home and kitchen appliances, jewellery, books and so on. The website is only a venue where users may meet and interact with another for their sale of purchase transaction. TIL only work as a facilitator for such sale and all commercial terms are offered by and agreed to between buyer and seller alone. The company has seven day return policy and customer service desk and also having online chat service to solve queries of buyers. Company has placed its image by providing innovative services like delivering gifts and flowers during birthday, rakhis during rakshabandha within India as well as abroad.
8. **Indiaplaza.in**

Indiaplaza.in (earlier Fabmall.com) pioneered the concept of online shopping in India. Since 1999, Indianplaza.in has served millions of customers online with a huge selection of over 8 million items provided at low price and reliable service. The Indiaplaza.in has online store for books, CD-ROMs, electronics, mobile phones, appliances, apparel, flowers, chocolate, cakes, sweets, toys, handicraft, watches, food items and so on. The company takes normally five days to ship within India. Company is providing support to customers via call centre from 8:00 am to 20:30 pm and also has secured payment system having EV SSL class 3 VeriSign. Indiaplaza has also developed positive image with innovative practices like delivering rakhi to USA, UK and other parts of world within three days.

2.4.13 **Market Size of E-Tailing**

E-Tailing comprises of buying consumer items such as cameras, computers, home & kitchen appliances, flowers and toys, gifts online. This category has grown from INR 978 crores in the year 2007 to INR 1,550 in the year 2009.

**Figure 2.31:** Market Size of E-Retailing (Year 2007-2011)

![E-Tailing (In Crores)](chart)

(Source: Report of Online Commerce: March 2011, IAMAI)
2.4.14 Component Share of E-Tailing of India

Table 2.8: Component share of E-Tailing

<table>
<thead>
<tr>
<th>Component</th>
<th>Market Size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer, Accessories, Storage and peripheral</td>
<td>560</td>
<td>36</td>
</tr>
<tr>
<td>Camera and Mobile</td>
<td>389</td>
<td>25</td>
</tr>
<tr>
<td>Personal Items (Apparels, Jewellery)</td>
<td>296</td>
<td>19</td>
</tr>
<tr>
<td>Electronic Durable</td>
<td>203</td>
<td>13</td>
</tr>
<tr>
<td>Home and Kitchen Appliances</td>
<td>62</td>
<td>4</td>
</tr>
<tr>
<td>Other Products (Gifts, Toys, Flowers)</td>
<td>40</td>
<td>3</td>
</tr>
</tbody>
</table>

(Source: Report of Online Commerce: March 2011, IAMAI)

At present, PCs, laptops, computer peripherals, accessories and storage, contribute the most 36 percent (INR 560 crores) to e-tailing followed by cameras & mobiles contributing 25 percent (INR 389 crores). Personal items such as jewellery, apparels, cosmetics, apparels, shoes and watches contribute 19 percent (INR 296 crores) whereas Electronic items like TV, Audio systems & other accessories account for 13 percent (INR 203 crores) Balance 7 percent is contributed by Home & kitchen appliances (4 percent) and other online buying (toys, gifts, flowers etc.)
2.4.15 What Sells well on the Web in India?

Table 2.9:- Categories of Product and Services India Purchase Online

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent of Online Buyers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
</tr>
<tr>
<td>Books</td>
<td>41</td>
</tr>
<tr>
<td>Electronic gadgets</td>
<td>40</td>
</tr>
<tr>
<td>Railway tickets</td>
<td>39</td>
</tr>
<tr>
<td>Accessories</td>
<td>36</td>
</tr>
<tr>
<td>Apparels</td>
<td>36</td>
</tr>
<tr>
<td>Gifts</td>
<td>35</td>
</tr>
<tr>
<td>Computer and peripherals</td>
<td>33</td>
</tr>
<tr>
<td>Airline tickets</td>
<td>29</td>
</tr>
<tr>
<td>Music</td>
<td>24</td>
</tr>
</tbody>
</table>

(Source: IAMAI)

As shown in the table, most of the products sold well on the website are standard merchandises such as books which didn’t required personal touch and examination when customers purchase it. While categories like apparel and gifts required physical orientation so they are sold less.
2.4.16 Challenges Faced by E-Retailing in India

1. **Unproven Business Model**
   In the formative years of dot-com era, most of the business on the net were experiments in new areas and didn’t provide stable source of profit. This was the primary reason for failure for a number of e-retailers in the beginning of the century. Though dot-com business have matured a bit, still some of the businesses are at experimental level and don’t guarantee regular revenue.

2. **Requirement To Change Business Process**
   The process of procurement, storage and logistics in e-retailing is different from that in traditional brick store business. The e-retail organization has to carefully redesign and integrate various processes to suit e-business. Traditional retailers require the goods to be present at the warehouse and inspected before being shipped to the customers but in e-retailing shipping of goods from one place to another to a customer are not possible. E-retailer has to appoint local supplier at the city where the customer reside and instruct the supplier to deliver goods. But this process requires a lot of faith in supplier as supplier would follow the instructions and deliver the same goods. Merchandise planning and demand analysis is also difficult in e-retailing compared to traditional retail business.

3. **Channel Conflict**
   Companies selling through internet as well as through brick store may find their interest conflicting at many places. As in e-retailing, the goods directly reach the end-user, so the distributor and seller may feel the threat to existence. Also at a time of selling online, the retailers tend to reduce price. In that case the sale of brick store may drop as the retailer may tend to sell more through internet because of price reduction.
4. **Security and Privacy**

Security is also one of the major challenges in digital world. Despite a lot of security arrangements, such as password and firewall, a number of times cases of website hacking and pilferages happened. People also hesitant to give their credit card number and personal information on the net as they may be misused. Cyber criminals have exploited the weakness and have broken into computer systems, retrieving password and banking information. Security of payment gateway is a major concern which has to be taken care by retailer by arranging proper security layers.

5. **Inability of E-Retail Players to convince Offline Customer for Online Purchase**

Majority of online retailers have yet not promoted online shopping with proper advertisement and marketing, also they were not able to creates brand image in the mind of customers. Online players must aware customers by demonstrating how to purchase online, how to pay online etc.

6. **Issues Concerning Security And Transaction Frauds**

A number of web portals don’t support online modes of payments. There is high occurrence of failed payment which can be a major restriction for clients to revisit the portal. Also the hacking of website cases is also there in India. The website of future group, future bazaar was hacked for two days. People in India also use cash for most of its transactions. Though now a days service providers came with other payment modes but still less penetration of credit card is a major barrier to e-retailing.

7. **Knowledge Regarding Online Purchase**

In India still people don’t know how to purchase online. Even majority of people are not aware about the format of online selling. This is also working as a major barrier to online purchasing.
8. Advanced Retail Networks

The existing traditional retail network have served consumer very well as most of the retail networks are within walking distance of residence. All necessarily things are available nearby home. This makes e-retailing less convenience than it might be and work as a barrier.

9. Usage Of Credit Card

Credit cards are the prime mode of payment in online retail. People tend to make transactions while booking travel tickets, hotels, buying books etc. However India is lagging in the number of credit card circulation. Future Group reports that 50 percent of sale – about $ 6.5 million worth of transactions daily at its 1100 supermarket, departmental stores and other stores are now made with cards. Though Euromonitor report says that only 1 percent of India’s overall consumer spending comes from debit, credit and other cards.

Table 2.10: Credit Card Usage among Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>No. of Credit Cards (Million)</th>
<th>Outstanding Credit Card Debt (billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>624.8</td>
<td>$822.8</td>
</tr>
<tr>
<td>China</td>
<td>199.5</td>
<td>$38.8</td>
</tr>
<tr>
<td>Taiwan</td>
<td>41.6</td>
<td>$6.2</td>
</tr>
<tr>
<td>Japan</td>
<td>324.0</td>
<td>$2.9</td>
</tr>
<tr>
<td>Hongkong</td>
<td>9.4</td>
<td>$2.7</td>
</tr>
<tr>
<td>Singapore</td>
<td>5.4</td>
<td>$2.6</td>
</tr>
<tr>
<td>India</td>
<td>24.7</td>
<td>$1.2</td>
</tr>
</tbody>
</table>

All data as per year end 2009. Fig. converted to US dollar based on exchange rates as on Dec 31,2009

(Source: Auriemma Consulting Group, Euromonitor International, government & industry data)
2.4.17 E-Retail Success Model

Molla and Licker (2001) suggest that an e-commerce system has additional constructs which are not captured by traditional measurements of the quality of information and information system, such as 24-hour availability, stability of software and hardware, page downloading speed, accessibility, up-to-date accuracy, comprehensiveness, understanding and so forth. Trust and service are also important components of e-commerce system.

Figure 2.32: E-Retail Success Model

(Source: Molla and Licker 2001, Modified for Research)
The factors contribute to the success of e-commerce are as followed:

1. **System Quality**

   System quality measures “the desired characteristics of an e-commerce system”. Online system quality can be divided into information system quality and information quality. Information system quality refers to the quality of software development whereas information quality pertains to the accuracy, timeliness, current and reliable information. The poor quality website system will have a negative influence on the customer’s online shopping experience and customer satisfaction with the site. A number of researchers have done study and found variables that include system quality. Those variables include response time, ease-of-use, and webpage downloading speed and website navigation system.

   One of the important aspects of online system is to enable customers to function more independently and conduct many transactions on their own. Customer often seeks desired product information through website. Therefore website should be well organized enabling customers to navigate smoothly and in an enjoyable manner. *Horsti (2005)* noted that ease-of-use is one of the most important factors for an e-commerce system. *Cognitiative* found ease of site navigation (website should be easy to find on net and easy to use) to be the most important reason for developing customer’s loyalty.

   Ease of use is considered one of the most important factors to customers on the Internet (*Eighmey and McCord 1998; Fram and Grady 1995*). Ease of use is the ability of a customer to find information or enact a transaction with the least amount of effort. This concept has been characterized as the customer’s ability to use as few “clicks” as possible. Ease of use also includes the issue of navigation. Navigation is having consistent menus that lead to key pages on a site. A clear navigation aid allows visitors to know where they are on a site and provides the ability to find their way back to a previous menu screen.
Ease of use also includes effective search engines, the ability to easily change or cancel an order, and the ability to inform customers of missing information.

The quality website should be available 24 hours a day, seven days a week and at fast speed. The speed of download is positively related to the number of pages accessed, time spent at a website.

2. **Content Quality**

Content is the soul of a website. Content is comprised of the words or text on a webpage along with the graphics and structure of a website. A professionally designed websites are not only user friendly but systematic efforts are made to make site attractive and sophisticated with help of graphic designing and appropriate colour schemes as shown in Figure 2.33. Content quality refers to the characteristics and presentation of information in the website. Szymanski also added that superior product information did impact on e-satisfaction. He further added that good site design includes having fast, uncluttered and easy to navigation sites.

*Figure 2.33: Professional Web-Design*
Web content is the best tool for building relation with potential customers. The looks and the feel of a site is crucial but the quality of the web content may be more important. Again due to the nature of virtual environment, customers can’t physically touch the products before the purchase, so the website information content is the best way to understand the product. Some researchers argued that content quality may be more important than system quality and they defined content quality as the characteristics and presentation of information in e-commerce system. According to Alba et al. (1997), quality of information is the degree to which consumers can use the information prior to purchase, to predict their satisfaction from subsequent consumption.

Previous researchers have explored many attributes of content such as accuracy, up-to-dateness, comprehensiveness, understandability and completeness. Epstein (2005) suggested that accurate information on the associated physical store, customer service and delivery and return policies should be easily accessible from the homepage.

Website information should also include new product or special offers and the company’s contact information. As the company information will enhance the customer’s trust towards website and new products will reach to the customers with minimum clicks. There should not be the duplicate of the content. For maximizing sales, website should allow user to find what he is looking for as quickly as possible. So effective search engine is also very important. Unique, interesting and relevant should be the mantra that service players must adopt while designing website.

Charles Duncombe, Director of ‘Just Say Please’ said that Spelling is also important to the creditability of the website. Poor spelling can undermine a website’s authority, causing users to question whether it is legitimate and safe to use. He further added that spelling has become increasingly important to e-
retailers as web users have become increasingly concerned with fraud and identify theft.

3. Trust
Along with content quality and system quality, research findings also suggested that trust has an important effect on the use of e-commerce and user satisfaction, as in online purchase uncertainties are very high. A number of studies found that trust is one of the most important factors of e-commerce. Mayer et al., 1995, pg.172 define trust as the willingness of a party to be vulnerable to the action of another party based of the expectation that the order will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party. Online consumers generally stay away from e-service providers whom they don’t trust. Ba and Pavlou (2002) found that higher level trust leads to higher prices, as the customer would be prepared to pay higher price on trusted website. All the above mention studies show that trust has an effect on the success of e-commerce.

Quickly establishing trust is critical in e-commerce sales. Taylor Nelson Sofre’s 2006 survey showed that customers terminate 70 percent of online purchase because of lack of trust. Study suggest that the average conversation rate for first time visitors is 2.5 percent which mean that only two customers for every hundred visitors. E-commerce service providers can easily increase the number only by placing a few trust elements in key location of website.

According to previous researchers, trust-related factors include security, privacy and product quality. Privacy refers to the ability of an individual to keep his/her identity confidential during the course of a transaction and the protection of various types of data that are collected. Privacy protection is a primary factor influencing customers’ online purchase decision and their satisfaction and loyalty to online business.
Turban et al. (2004) suggested that customers should be given notice of the collection of personal information and that their consent be necessary to prevent or allow the collection of information. Therefore, research has shown that e-tailers who give a high priority to customer privacy will benefit by increasing the customer’s opinion of their site. A study conducted by IAMAI revealed that lack of trust is the major reason given for not shopping online.

Security is another important issue related to trust. Security relates to the protection of information or system from unsanctioned intrusion. A study conducted by Eurobarometer (2004) revealed that the prime reason for not using e-purchase facility was security of payment. Along with that 36 percent of respondents also revealed that lack of security related to getting warranty of refund was a major reason to avoid e-shopping.

A number of Trustmark seals have been developed to provide assurance about Web business practices and policies through the Web interface. Third party security seal (shown in Figure 2.34) are increasingly used by business to communicate their commitment to security (Belanger et al, 2002). A survey conducted for Privacy and American Business found that 62 percent of consumers believe that third party privacy seals would reduce their privacy concerns.

Security has three main concepts which are confidentiality, integrity and availability. Confidentiality allows only authorized parties to read protected information. Integrity ensures that data remains as is from the sender to receiver and Availability ensures you have access and authorized to resources. Customers would like to conduct more online shopping activities through a secured website and from organizations that have developed better brand image. Therefore security issue should be addressed by e-retailers, to increase sales and build a positive brand image.
The product quality also affects the trust of consumer while purchasing from website. Sometimes the problem of product quality arises due to the mismatch between description of product and understanding from customer. Due to the nature of virtual environment, consumer has difficulty identifying the online trading parties and product quality because of lack of physical contact.

Pavlou and Gefen (2004) suggested that Escrow services and credit cards are useful in solving the security problem. Escrow services act as a trusted third party in a transaction, and provide secure methods to transfer items and payments between two trading partners (Ba et al. 2002), and can serve to bridge the gap of trust between buyers and sellers (IDA 2001). Credit card guarantees and e-commerce insurance will provide resources by reducing the buyer’s monetary liability in case of illegal seller behavior (IDA 2001).

Some of the studies also supported that to build customer trust; company must provide its address, contact number, e-mail address, fax number on the front
Along with that the company should develop a section called “About Us”, in which they should mention brief history and board of directors and achievements if any.

4. Support and Service

Customers value highly the support and service the service providers provide during all phases (pre, during, after-sales) of the transaction. Studies suggest that high quality service would encourage customers to pay higher price for a product. Service quality is positively related to the success of e-retail service provider as it will reduce the perceived risk and create loyalty in customers towards the virtual store. Santos. (2003) suggested that high service quality can potentially increase the attractiveness, hit rate, customer retention and positive word of mouth reputation and can maximize the online competitive advantage to the website.

Many of the researchers (Su et al. (2008), Zeithml et al. (2002) concluded that e-commerce services are facing many difficulties when trying to deliver quality signals to customers. So they have to start focusing more on delivering efficiently products and services, guarantee the quality of goods, offer consumer service online but also offline (e.g. after sales service, community, response to complain) and invest in better and safer online transaction. Mao, D. suggested that some of the value-added services provided to customers apart from just selling the product could be secure and fast delivery, reliable payment methods, certificate of quality assurance, and after-sale service etc.

Different dimensions of online service quality have been mentioned by various researchers. Wang (2003) stated that e-service quality consists of four dimensions: efficiency, reliability, fulfillment and privacy. Many services and support activities have been identified by researchers which are associated with the above mention dimensions such as human assistance, frequently
asked questions, provision for feedback, personalization and online communities.

Figure 2.35:- Support and Service Links

Effective customer support along with the transaction line from pre-sale to post-sale would reduce the uncertainty and risk. To reduce the anxiety it is necessary to have both computer based and human based assistance, such as Frequently Asked Questions (FAQs) as shown in Figure 2.36 and call centre. Computer based assistance include FAQs, search engines and website instructions. An effective search engine can quickly provide right information to the customer. Though human based assistance is more effective as in case of any mistake, customer can immediately call or chat with person and reduce anxiety.
Delivery is another most important issue in online service. A number of researchers such as have studied Xaun (2007), Turban et al. (2004), Wang (2003) have studied the delivery issue of online transaction. Customer want reliable delivery from reputed delivery companies with reasonable charges and delivery options. While Cho (2004) said that an inability to physically examine the good and concerns over delivery and return can be viewed as a liability or disadvantage for e-shopping. Researchers have suggested that e-retailers should develop a proper return policy, privacy policy (shown in Figure 2.37) and provide customer with a number of product return policy to reduce anxiety. Agrawal et al. (2002) suggested that e-retailers have to allow customer to return defective or unwanted merchandise.
According to E-commerce and Internet Auction Fraud: The E-Bay Community Model (2004), non-delivery of goods was another major fraud happened on e-commerce website. A number of researchers such as have studied Xaun (2007), Turban et al. (2004), Wang (2003) have studied the delivery issue of online transaction. Customer want reliable delivery from reputed delivery companies with reasonable charges and delivery options. While Cho (2004) said that an inability to physically examine the good and concerns over delivery and return can be viewed as a liability or disadvantage for e-shopping. Agrawal et al. (2002) suggested that e-retailers have to allow customer to return defective or unwanted merchandise.

Feedback and online communities are other useful parameters in customer service avenue. Feedback (shown in Figure 2.38) and online communities can build e-retailer’s reputation and enhance trust. An online community improves communication and personalization of service. Communication is the primary activity in communities and knowing the details of whom you are
communicating with is essential for understanding and evaluating an interaction. E-seller must empower customers through a better listening of complaints and a better customer service else e-buyers will keep moving forward to a more personalize and fragmented market.

Figure 2.38:- Provision for Feedback

5. Order Confirmation

According to E-commerce and Internet Auction Fraud: The E-Bay Community Model (2004), Fee stacking was an issue which involves adding hidden charges to the item after the purchase is over to obtain more money. Instead of flat rate for postage and handling, the seller adds separate charges for postage, handling and shipping. As a result buyer has to pay more. Studies also suggest that ‘Zero Percent interest rate’ scheme can be problematic and hidden charges are also involved if customer couldn’t pay nothing or only a little during the allotted time,” Nixon said. "If that happens, then you’ll likely be charged an interest rate as high as 25 or 30 percent. You could end up
paying much more for the item than you ever thought you would." A number of sites also charge the transportation cost in case of returning of the product. In case of quick delivery, a common hidden fee that shoppers fall victim of is expedited shipping prices. The cost of ground transportation can be very reasonable, but if customer need to receive an item quickly, it is advisable to purchase form offline retailer. Online prices for overnight and second day delivery can be outrageously expensive, sometimes even more than the item you're purchasing.

The terms and condition (shown in Figure 2.39) apply to purchase online vary from country to country. The retailer must mention clear terms and conditions related to purchase which should involve the return policy, privacy policy, return policy and disclaimer. Terms of service are an important part of any contract or service provision but customer should always be wary of excessive amounts of terms and conditions as these often are used to hide sub-clauses that include further charges. If customer is making a seemingly small purchase the terms and conditions should be clear and no longer than one page.

**Figure 2.39: Terms and Conditions Mentioned in E-Retailing Website**
Delivery time is an important parameter in online shopping. The company must deliver the product within mentioned time on the website. Customers want fast and safe delivery so e-retailers must appoint reputed delivery companies to deliver the product. Studies suggest that the product is delivered within stipulated time add the satisfaction level of customer and yield repetitive purchase. Collier, J. suggested that order timeliness which refers to receiving the product within an expected amount of time is a most important aspect contribute to service quality.

6. Product Purchase

Though registration is an important aspect to purchase from website but a number of studied confirm that a long registration process discourage the customer to purchase from website. A number of e-retail websites force customers to register at a time of purchasing a product. Studies suggest e-retailers should not force customers to register before proceeding as an account can automatically be created as part of the checkout process. The details of which can be emailed to them highlighting the benefits of logging in next time.

Also e-retailer must provide full view of order to the customer before customer place the order. This will help customer to view the entire order along with delivery time and if customer want to change any parameter, he can change. Studies (Dedrik et al. (2001); Ernst & He (2000); Wong et al.(2004); Stylianou et al. (2003); UNCTAD (2003); Efendioglu et al. (2004)) suggested that lack of payment facility and effective banking service are barrier for the success of e-retailing. Saunders, C. (2004) suggested that adding multiple ways for customers to pay for their purchase can make it easier to close a sale.
Studies found that sellers who accept multiple payment have more visitors convert into customers than merchants who offer a single payment method. For e-tailers who offer multiple payment options, their conversion rate grew 20 percent, to 72 percent of overall site visitors, compared to single-option merchants, who convert an average of 60 percent of their shoppers. TIMOFTE, C. (2004) also added that Merchants who support payment types beyond credit cards (gift certificates, e-checks, etc.) typically see significant increases in online sales. Offering potential customers additional payment methods increases order conversion and in some cases order amounts.

The benefits of e-commerce using different payment methods are increasing the sales and the number of customer, allowing capturing and keeping more revenue, reduce the complexity of payment operations, and grow without disruption.

2.5 Consumer Awareness

2.5.1 Definition of Awareness:

Awareness refers to the proportion of people who are aware of (i.e., have seen or heard of) a product, brand name, company, or trademark. Awareness is subdivided into Unaided Awareness and Total Awareness (including Aided Awareness).

Unaided Awareness refers to the proportion of people who are aware of (i.e., have seen or heard of) a product, brand name, company, or trademark without prompting.

Aided Awareness refers to the proportion of people who are aware of (i.e., have seen or heard of) a product, brand name, company, or trademark with prompting.
Total Awareness refers to the proportion of people who are aware of (i.e., have seen or heard of) a product, brand name, company, or trademark. Total awareness includes both unaided awareness as well as aided awareness.

### 2.5.2 Definition of Consumer Awareness

Consumer awareness refers to a buyer's knowledge of a particular product or company, allows the buyer to get the most from what he buys. Consumers know more about their choices when they have product information and benefit from knowing their rights, hearing about alerts and warnings and finding out about safety issues. Measuring consumer awareness requires more than just approaching a consumer and asking, "Have you heard of our product?" It requires measuring sales, tracking consumer preferences, and determining a show of interest for the product or service.

Consumer awareness is broad, involving financial literacy, comparative shopping techniques, money management and information about products. Basically, consumer awareness is being able to look into factors, such as prices, product attributes, warranties and store policies, before making a decision to purchase. An informed consumer looks for the most value she can get from a product using various buying methods, such as clubs, coupons, catalogs and online shopping. Along with trying to save money, consumer should look for common consumer scams, such as telemarketing fraud and phony Internet promotions.

Marketers spend a great deal of time and money attempting to make consumers aware of their products and services, essentially creating a niche in the clutter of the market. Creating awareness in the minds of the consumers is step one in the long process of filling the sales pipeline. According to the Center for Economic Policy
Research, internet played major role in increasing consumer, as customers can provide and read consumer reviews, voice their complaints and opinions about goods and services over website.

Each stage of awareness is one of the main pieces Eugene Schwartz discussed in his book “Breakthrough Advertising”

Eugene gives the stages of Awareness in “Customers” as follows:

1. The most aware: Customer knows your product, knows what it does, and knows he wants it.
2. Customer knows of your product, but doesn’t yet want it
3. New Product: Customer knows or recognizes that they want what the product does. But doesn’t know that there is a product, yours, that will fulfill their want.
4. New products that Solve Needs: Customer has a need they want fulfilled but isn’t aware of the connection between their need and your product.
5. The customers are completely unaware about the market

Studied revealed that knowledge related to product/service will increase awareness and awareness has direct impact on the behavior of individual. Companies usually set a target for the degree of awareness they intend to achieve, and then plan a promotional campaign to reach that target. Companies are using advertising, sales promotion, publicity, personal selling, social media and other marketing activities to increase awareness amongst potential customers.
2.5.3 Methods to Measure Consumer Awareness

1. Sales Method

In this method, the awareness is measured based on volume of sales. The company identifies increase of sales over a tracking period as advertising and marketing tools are used to promote consumer awareness. For example the company pays attention to increases in sales revenue after an advertisement campaign or in-store sales promotion.

2. Show of Interest Method

In this method, the company will focus how many in-store, phone and mail inquiries are made regarding your product or service. This cost effective method is easy to track and provides a clear understanding of how well sales and marketing tools move your product(s) out of the store.

3. Awareness/Preference Method

The company will determine consumer awareness based on how many consumers show a preference for the product or service. In-store feedback cards and product testing stations are an ideal way to implement this method. In this method the company asks consumers to state their preference among competitor products and explain why the selected product is superior.

4. www.the-dma.org/cgi/newsstandarchive


10: http://www.math.iitb.ac.in/dbpr/dbpr.pdf


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