E-Commerce in India: Evolution, Growth and Challenges

BY

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What is that you do when you need to gift your parents or friends on their birthday or for any festival?

The majority of people today hop to the internet, browse through a few websites that sell gift items like books, clothes, perfumes etc. and order one of them to be dispatched to the person’s address.

It takes just a few minutes at the maximum and a click! Very few people today bother or even have the time to drive down in the heavy traffic to some boutique.
Introduction to E-Commerce

• Commerce is a division of trade or production which deals with the exchange of goods and services from producer to final consumer.

• Electronic commerce, commonly known as e-commerce, is a type of industry where the buying and selling of products or services is conducted over electronic systems such as the Internet and other computer networks.
• Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems.

• Modern electronic commerce typically uses the World Wide Web at least at one point in the transaction's life-cycle, although it may encompass a wider range of technologies such as e-mail, mobile devices, social media, and telephones as well.
Order placed by user

Shopping Cart

Credit card is charged

Order Form

Order is completed

Email is sent to Customer and merchant

Email is sent to Customer and merchant

Sent to Warehouse for fulfillment

Shipping carrier picks up shipment

Shipment sent to Customer
Buying
Selling
Marketing of Products
And Services
Servicing

Enterprise Uses

Computer networks

Electronic Commerce

Internet, intranets, extranets and other networks

Meaning of E-commerce
E-R diagram: Internet Sales Model

- **Entity**:
  - One: *
  - Zero or more, Optional: <-
  - Many: ->

- **Action**: 

- **Attribute**: 

ER Diagram:

- **Customer**
  - Shoes Item
  - Has
  - Orders

- **Item**
  - Contains

- **Company**
  - Produces

- **Shipping**
  - Forwards Order
  - Credit Card
    - Verifies

- **E-Commerce**
  - Processes

- **Order**
  - Creates

- **Shopping Cart**
  - Order Number
According to Lou Gerstner.....IBM Former CEO

“E-Commerce is all about time, cycle, speed, globalization, enhanced productivity, reaching new customers, & sharing knowledge across institutions for competitive advantage.”
Features of E Commerce

1. **Global Reach**
2. **Richness**
3. **Interactivity**
4. **Information Density**
1. **Global Reach**

   - The technology reaches across national boundaries, around Earth.

1. **Richness**

   - Supports video, audio, and text messages
Interactivity

- The technology works through interaction with the user

Information Density

- Vast increase in information density—the total amount and quality of information available to all market participants
Evolution of E-Commerce

• Commerce has evolved over the centuries.

• Prior to the evolution of money it was the simple “batter process” i.e. where things were exchanged say milk for grains.

• The evolution of money brought with it, the concept of market place, here e commerce is having functions of 4p’s, product, price, place and promotions.
• a slight modification of price and place led to the convenience of getting products at their homes, this concept is “street vendors”.

• When the postal system came into being the sellers decided to cash in on the new opportunities and started using mailers giving description of their products. It led to the concept of mail ordering catalogue.

• From there the concept of tele-shoping came into existence.
• The latest generation of commerce is one which can be done over the internet. Where the internet provides a virtual platform where sellers and buyers can come in contact for sale and purchases of goods and services, they are thousands of miles apart may belong to different parts of the world, might speak different languages.

• E-commerce emerged as the boundary less trade medium in the era of globalization
The Dimensions of E-commerce
Types of E-Commerce

There are mainly three types of e-commerce they are:

- Business To Business (B2B)
- Business To Consumer (B2C)
- Consumer To Consumer (C2C)
# Types of e-Commerce

<table>
<thead>
<tr>
<th></th>
<th>Government</th>
<th>Business</th>
<th>Consumer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G2G</strong></td>
<td>e.g. Central &amp; State</td>
<td><strong>G2B</strong></td>
<td><strong>G2C</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>e-Tenders</td>
<td>Information to Citizens, online forms</td>
</tr>
<tr>
<td><strong>B2G</strong></td>
<td>e.g. procurement</td>
<td><strong>B2B</strong></td>
<td><strong>B2C</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Covisint.com</td>
<td>Flipkart.com, Rediff.com</td>
</tr>
<tr>
<td><strong>C2G</strong></td>
<td>Online filing of tax returns</td>
<td><strong>C2B</strong></td>
<td><strong>C2C</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Job portals like naukri.com</td>
<td>Facebook.com, Ebay.in,flikr.com</td>
</tr>
</tbody>
</table>

Source: OECD
1. Business-To-Business (B2B)

B2B, in which two or more businesses make transactions or collaborate electronically.
B2B is major current type of electronic commerce.
Round about 80% e-commerce is of this type.

Example:
PROCTER AND GAMBLE use B2B e-commerce for transportation, warehousing & distribution.
2. Business-To-Consumer (B2C)

In this case seller are organization, the buyers are individual. The organization places its product on the internet where the consumer buys it online.

Example: Ebay.com, Amazon.com, Flipkart.com
3. Consumer-To-Consumer (C2C)

In this case, an individual sells product to another individual. If a consumer is having a car and wants to sell, he can place the ad stating all its details and the other consumer who likes it can buy it online.

Example: Ebay.com
The other types of e-commerce are:

1. **CONSUMERS TO BUSINESS (C2B)**
2. **BUSINESS TO EMPLOYEES (B2E)**
3. **GOVERNMENT TO CONSUMERS (G2C)**
4. **GOVERNMENT TO GOVERNMENT (G2G)**
5. **GOVERNMENT TO BUSINESS (G2B)**
6. **BUSINESS-TO-GOVERNMENT (B-TO-G)**
7. **MOBILE COMMERCE (M-COMMERCE)**
In this case consumers make a particular product, suggestion, or services and organization try to provide the product to consumers.

Example: Priceline.com (Where customers tell price & supplier try to fulfill it)
2. Business To Employees (B2E)

In this case an organization uses e-commerce internally to improve its operations.

Examples of B2E applications include:
* Online insurance policy management
* Corporate announcement dissemination
* Online supply requests
* Special employee offers
In this case the government provide its services to its citizens. These projects give the choice of when to interact with the Government, where to interact with the Government - service centers on 24/7 basis, and how to interact - through internet, fax, telephone, email or face-to-face etc.

Example: Rojgar Wahini: Data Of Over 45 Lakh Candidates Registered With The Employment Exchanges In The State Of Maharashtra.
Government can do business with other government. Government to government (G2G) is the electronic sharing of data and/or information systems between government agencies, departments or organizations.

Example: Central Government issues its guidelines, notifications, rules to state government and vice versa.
5. GOVERNMENT TO BUSINESS (G2B)

In this type of E-commerce business, a company can apply for government tenders and government services where the government gets its jobs done by third party.

Example:
MSEB’s Secured e-Tendering Solution

Suppliers are no more required to come to the MSEB office for tender purchasing, submission and opening, thereby reducing the cost of tendering. The online system has offered fast and more transparent tendering.

The exchange of information, services and products between business organizations and government agencies online.
When E-commerce is done in a wireless environment such as using cell phones to access the internet, we call it m-commerce.

Example: Mobile devices, such as smart phones
Growth of E-Commerce

• As per a recent report by IAMAI (Internet and Mobile Association of India) and Boston consulting group, India has one of the largest and fastest growing populations of Internet users in the world—190 million as of June 2014 and growing rapidly.

• India already has the third largest Internet population in the world today, after China with 620 million and the US with 275 million.
Exhibit 1 | India Internet Population to Reach Half a Billion by 2018

Internet users (Million)

2009: ~60
2013: ~170
2014: ~200
2015: ~260
2016: ~330
2017: ~430
2018: ~580

Changes in affordability and reach variables disproportionately affects rural user growth

Source: BCG analysis.
• In addition, India already has 100 million active Facebook users today, the second largest number after the US and Canada with 152 million.

• As one fast forwards, it is estimated that there will be over 500 million Internet users in India by 2018—making India the second largest population of Internet users in the world.

• The growth in the Internet base in India has been exponential. It took 20 years from the introduction of the Internet to reach 100 million users.
The impact of this explosion of Internet users will be staggering. The Internet is already economically powerful: in 2013 alone, it contributed to USD 60 billion or 2.7 percent of India’s GDP.

This means that the Internet is already one of the larger sectors in the Indian economy, larger than sectors like healthcare (2.5 percent) and military (2.5 percent), but still smaller than agriculture (14 percent).
• It is estimated that the Internet economy will grow to over 4 percent of GDP by 2020, comparable to developed markets like the US, EU and Japan.

• The Internet economy is also an employment generation engine. The ‘Internet’ sector already employs ~4-5 lakh people and is expected to create nearly 15-20 lakh jobs by 2018.
Exhibit 3 | Internet Contribution to GDP Set to Grow at 23% Compared to 13% Overall GDP Growth

<table>
<thead>
<tr>
<th>Components</th>
<th>2013 (INR billion)</th>
<th>2018 (INR billion)</th>
<th>2013–18 CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Comm Services + Fin. Services</td>
<td>~3600</td>
<td>~9480</td>
<td>19%</td>
</tr>
<tr>
<td>E-Commerce Products</td>
<td>~780</td>
<td>~1800</td>
<td>59%</td>
</tr>
<tr>
<td>Advertising and Classifieds</td>
<td>~270</td>
<td>~2700</td>
<td>25%</td>
</tr>
<tr>
<td>Online Content</td>
<td>~740</td>
<td>~1520</td>
<td>31%</td>
</tr>
<tr>
<td>Devices</td>
<td>~340</td>
<td>~730</td>
<td>16%</td>
</tr>
<tr>
<td>Connectivity</td>
<td>~90</td>
<td>~2200</td>
<td>16%</td>
</tr>
<tr>
<td>Private Infrastructure</td>
<td>~20</td>
<td>~210</td>
<td>11%</td>
</tr>
<tr>
<td>Government Spend</td>
<td>~20</td>
<td>~210</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>~1340</td>
<td>~9480</td>
<td>21%</td>
</tr>
</tbody>
</table>

Sources: GFK, Gartner, FICCI/KPMG, Ovum, IMF, Ernst & Young estimates of share of eComm businesses, BCG analysis.
Note: Assumes overall 12.9% nominal, 6.3% real growth rate (IMF forecast).
INTERNET USE
Based on reported active internet user data, and user-claimed mobile internet use

TOTAL NUMBER OF ACTIVE INTERNET USERS: 243M

INTERNET USERS AS A PERCENTAGE OF THE TOTAL POPULATION: 19%

TOTAL NUMBER OF ACTIVE MOBILE INTERNET USERS: 200M

MOBILE INTERNET USERS AS A PERCENTAGE OF THE TOTAL POPULATION: 16%
January 2015

Share of Web Traffic
Based on each device's share of the total web pages served to web browsers

- Share of Web Page Views: Laptops & Desktops
  - 27%
  - Year-on-Year: -19%

- Share of Web Page Views: Mobile Phones
  - 72%
  - Year-on-Year: +9%

- Share of Web Page Views: Tablets
  - 1%
  - Year-on-Year: +19%

- Share of Web Page Views: Other Devices
  - 0%
  - Year-on-Year: -
JAN 2015

TOP ACTIVE SOCIAL PLATFORMS

SURVEY-BASED DATA: FIGURES REPRESENT USERS' OWN CLAIMED / REPORTED ACTIVITY

<table>
<thead>
<tr>
<th>Platform</th>
<th>Social Network</th>
<th>Messenger/Chat App/VOIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHATSAPP</td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>FACEBOOK MESSANGER</td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>FACEBOOK</td>
<td></td>
<td>8%</td>
</tr>
<tr>
<td>SKYPE</td>
<td></td>
<td>8%</td>
</tr>
<tr>
<td>GOOGLE+</td>
<td></td>
<td>7%</td>
</tr>
<tr>
<td>TWITTER</td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>WECHAT</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>LINKEDIN</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>PINTEREST</td>
<td></td>
<td>4%</td>
</tr>
<tr>
<td>VIBER</td>
<td></td>
<td>4%</td>
</tr>
</tbody>
</table>
Ecommerce Sales In India: A Tiny Share of Total Retail Sales

• The total retail sale in India has increased from $635.25 billion in 2013 to $717.83 billion during the year which just ended, growing at a rate of 13%.

• It is expected to touch $818.33 billion in 2015 registering a Y-O-Y growth of 14.0%. By 2018, total retail volume will grow to $1,244.58 billion, growing steadily at 14-15% annually.

• Retail eCommerce sales in India, on the other hand, which were a meager $3.59 billion in 2013 grew to a somewhat better $5.30 billion in 2014.
Key drivers in Indian e-commerce are:
• Large percentage of population subscribed to broadband Internet, burgeoning 3G internet users, and a recent introduction of 4G in few cities.

• Explosive growth of Smartphone users, soon to be world's second largest smart phone user base.

• Rising standards of living as result of fast decline in poverty rate.
• Availability of much wider product range (including long tail and Direct Imports) compared to what is available at brick and mortar retailers.

• Competitive prices compared to brick and mortar retail driven by disintermediation and reduced inventory and real estate costs.

• Increased usage of online classified sites, with more consumer buying and selling second-hand goods.

• Evolution of Million-Dollar startups like Jabong.com, Saavn, Makemytrip, Bookmyshow, Zomato Etc
TOTAL RETAIL & RETAIL ECOMMERCE SALES IN INDIA
2013 - 2018

Source: eMarketer, Dec 2014, Figures in USD Billions
Major Challenges faced by Ecommerce Industry in India

- Poor Knowledge and Awareness
- Online Transaction
- Online Security
- Logistics and Shipment Services
- Cash On Delivery
- Fear factor
- Touch and Feel factors
- Tax Structure
• Poor Knowledge and Awareness

• Online Transactions

• Online Security

• Tax Structure

• Touch and Feel Factors

• Fear Factor

• Cash on Delivery

• Logistics and Shipment Services
POOR KNOWLEDGE AND AWARENESS

• When it comes to ratio of internet consumers, scenario is not so admirable one. Majority of Indian rural population are unaware of internet and it uses.

• Surprisingly, most of internet savvies or urban population are also suffering from poor knowledge on online business and its functionalities.

• Very few are aware of the online corruption and fraud and thus darkness still exists.

• A reliable survey reveals that 50% of Indian online users are unaware of the solution of online security. Poor Knowledge and Awareness.
ONLINE TRANSACTIONS

• Most of Indian customers do not possess plastic money, credit card, debit card and net banking system, which is one of the prime reasons to curtail the growth of e-commerce.

• Nevertheless, in recent years, some of the nationalized banks have started to issue debit cards to all its account holders. This is undoubtedly a positive sign for Indian online entrepreneurs.
ONLINE SECURITY

• In case of start up and small business, Business owners are ignoring the importance of authentic software due to budget constraints. They are even failing to take the initial steps to secure and protect their online business through installation of authentic protection services like antivirus and firewall protection, which indeed a crucial step for successful online business players.

• In India, maximum number of business entrepreneurs used unauthorized software in their server, which usually does not come with upgraded online security. Such pirated software leaves room for virus, malwares and Trojan attacks and it is highly risky task to make online transactions in the systems, which may disclose or leak sensitive details of credit cards and online banking of the users.
TAX STRUCTURE

• Tax rate system of Indian market is another factor for lesser growth rate of E-Commerce in India in comparison to other developed countries like USA and UK.

• In those countries, tax rate is uniform for all sectors whereas tax structure of India varies from sector to sector.

• This factor creates accounting problems for the Indian online business companies.
**TOUCH AND FEEL FACTORS**

- Indian customers are more comfortable in buying products physically. They tend to choose the product by touching the product directly.
- Thereby, Indian buyers are more inclined to do ticketing and booking online in Travel sectors, books and electronics.
- Companies dealing with products like apparel, handicrafts, jewelry have to face challenges to sell their products as the buyers want to see and touch before they buy these stuffs. ‘Touch and Feel’ factors
CASH ON DELIVERY

• Cash on Delivery (COD) has evolved out of less penetration of credit card in India.

• Most of Indian E-commerce companies are offering COD as one of mode of payment for the buyers. 30%-50% of buyers are also taking advantage of this mode of payment while making purchase of any product and service over internet.

• COD has been introduced to counter the payment security issues of online transaction, but this mode has been proving to be loss and expensive to the companies.

• It is seen that majority of the customers denied to make the payment at the time of delivery of the product. Hence, companies tend to lose the sale along with product transit fee.
FEAR FACTOR

• Fear of making online payment is a universal psychological factor of Indian customers.
• With the spread of knowledge on online transactions and its reliability, some percentages of customers have overlooked this fear and they are fearlessly engaging themselves in online shopping.
• But still, majority of customers are not aware of online transactions and its security.
• They often reluctant to disclose their credit card and bank details and preferred to stay away from online world of shopping.
LOGISTICS AND SHIPMENT SERVICES

• In India Logistics and courier services require lots of improvement.

• While a perfect and strong logistics service is one of the key reasons behind the success of any online company.

• India is lagging far behind in this sector as most of the town and small villages are still not covered under serviceable area of many of the courier and logistics companies.

• E-commerce is hampered in a big way owing to the limited services offered by the courier service companies.
THANK YOU