# E-Commerce in India with Modern Business Process

**Basantlal Maurya[1] Krishna Tiwari[2] Pawan Pandey[3]**
[1,2,3]ASM - Institute of Management and Computer Studies, Mumbai University

*Abstract—* India has taken the swing growth in last few years in electronic-commerce. There are many people who made a good business through e-commerce. Understanding the market requirement, new technology and various types of features is very important for making a success business in Indian market through electronic commerce. Indian Industries have taken aggressive participation for online business. Every company is making their place online by placing their websites, stores, blog sites, stream line videos, etc. Electronic ecommerce have become the major place for business growth. This paper describes about the current business strategies, employment growth and new technology emerge in online industry. In this paper we found that role of internet user to make a growth of Indian market.
*Key words:* E-Commerce, New Technology, Future of E-Commerce, State and Opportunities

## I. INTRODUCTION

E-commerce is refers to an online business activities for dealing with products and services. E-commerce provides the small as well as big firm, retailer, seller to come online and do business. Due to e-commerce India has accept digital process, electronic communication, digital information processing technology. E-commerce also creates a job opportunities in many fields. The customer also gets more products and different pricing option in different sites.

## II. INTRODUCTION

E-commerce stands for electronic commerce or EC. E-commerce not only deals with buying and selling of goods and services online, but also understanding the modern business process which can help the organization to achieve the goal.

In last few years many industries have developed due to growth of e-commerce like IT, electronics, Cloud, Mobile etc. The below chart shows the investment in online retail sector in last few years and also shows how much this process is go on in the future.

The figure 1 shows the how much retailer is investing in Indian online industries and how much online buyer is buying the products online.



Fig. 1: Online Investment & buyer in India

## III. DIFFERENT TYPES OF MODEL

E-commerce includes various business models like-B2B (Business to Business), B2C (Business to Consumer), C2C (Consumer to Consumer) and C2B (Consumer to business). These four models are in demand in e-commerce but the B2C model is growing more than other model.



Fig. 2: Different types of e-commerce Model

### A. B2B (Business to Business)

**B2B** business model sell its product to the buyer. The buyer can now sell that product to the customer. Business to business model is applied between two firms. Basecamp, salesforce, imagesbazaar etc. some are the example of B2B business model.

### B. B2C (Business to Consumer)

**B2C** business model sell its product directly to the customer. The customer can view and buy the product from the website. Flipkart, paytm, Amazon etc some are the example of B2C business model.

### C. C2C (Consumer to Consumer)

**C2C** business model helps customer to sell their property, cars, phones etc by providing information on the website. The other customer can see the product of the first customer through advertisement or post and buy the product. The Website can charge or not charge for the services provided to the customer. OLX, Western Union, PayPal etc some are example of the C2C business model.

### D. C2B (Consumer to business)

**C2B** business model provides online platform to the customers to choose a service from multiple business organizations at fixed price of the customers. Elance, Freelancer, oDesk etc some are the example of C2B business model.

From e-commerce industry it has been expected that 1.45 million jobs will be created by 2021. According to research India facing almost 9.66% unemployment rate in the month may of 2016. The e-commerce helps to provide employment in many fields which helps to reduce the unemployment rate in India with huge impact.

Due to Electronic commerce "India goes digital" almost every field and retail market also evolved in last few years.

## IV. STATE AND OPPORTUNITIES OF E-COMMERCE IN INDIA

E-commerce has grown rapidly in last few years and it became bigger and bigger. As e-commerce grow the new technology and opportunity also created. The online seller and buyer can adopt the new techniques to sell and buy the products more efficiently.

In figure 3 shows how much sales have done in last few years through e-commerce market in different category.



Fig. 3: E-commerce Sales in different category.

The e-commerce grow the many opportunity has created in many area like-

### A. Healthcare

Today almost all the diagnostics' center, hospitals, doctors etc are accessed by the user's mobile phone or through online. Medibox technology, eKincare, "Thrymr Software", etc. some are the health care applications and software which is used to order medicines, manage health records, manage health record, search hospital or medicals, contact doctor etc. All these application and software can reduce time as well as money of the patient.

### B. Mobile

41% of Indian e-commerce sales is from the Smartphone only according to the report of internet trend in June 2015. The increase in internet users is led to increase of e-commerce industry.

The Smartphone demands also increases in last few years due to growth in internet users. These report shows that all the shopping sites profit and success depends on the Smartphone sales. The e-commerce firms like Flipkart and Snapdeal are already sales more than 60% it total sales from Smartphone.

### C. Social Media

The e-commerce industry has taken a big swing in social media like Facebook, Twitter, and LinkedIn etc. The e-commerce plays a major role in social, mobility, analytics, cloud, digital and 3d space.

The key concepts evolve due to e-commerce in social media are advertisement, use visual content, live chats, blogging, reviews, automated tools, Integrated approaches, etc. We can see many social media like what's up, Instagram and YouTube playing a pivotal role in growth of e-commerce and it creates a good platform for those people who want to make money from social media.

### D. Real Estate

Indian e-commerce can make a big swing in real estate. The e-commerce is making good impact in industrial real estate. It is less expensive and giving more effect by investing internet storefront than on retail space.

The output come more on internet as compare to retail space. The e-commerce gives better options to owner, seller, buyer, broker and renter. The real estate also provides good business platform and communication medium to interact with other people.

### E. Banking

E-banking (internet banking) is an application of e-commerce which allows customer to do all the basic banking operation like mini-statement, balance enquiry, money transfer, bill payments etc. The first internet banking was launched by ICICI in the year of 1996.

E-banking can help us to overcome the drawbacks of manual system in banking sector. With e-banking access of services become more easy, fast and accurate.

## V. NEW TECHNIQUES

Consecutive development has molded the Technology to develop and create new techniques which is leading the e-commerce industry to great extent. New technologies like Big Data, Web-Scraping, Web Mining, Heat Map, Mashup etc. This technology has led to increase in different type of job profile like data scientist, data analytics, database programming, data engineer, programming language specialist, etc. It has not only created new job profiles but also has boosted the traditional job roles like Project Managers, Business Analyst, Business programmer, Business Development Managers, etc.

There are many technologies which already developed, some of these have huge demand in market and cover the overall market in the future. The figure 4 is exactly shows that technology.
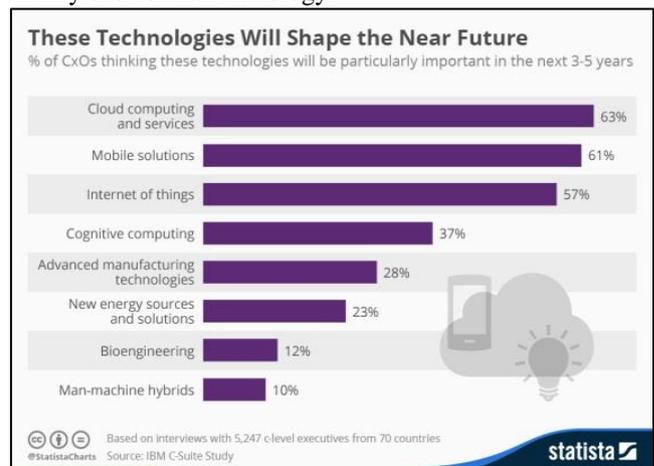


Fig. 4: Technology grow in Future

### A. Big Data

In recent year's e-commerce industry make a huge growth and India has become fastest growing e-commerce industry. With the help of more than 100 million online user e-commerce industry expected to touch $100 billion revenue by year 2020.

Handling 100 million user is not an easy task. The **Big Data** helps to manage the data of online user. Before

big data online retail companies uses Cookies, IP address, etc to manage the online user record which was very difficult but big data can this work very easily.

*B. Electronic data interchange (EDI)*

**Electronic data interchange (EDI)** is an electronic communication method that provides standards for exchanging data via any electronic means. The two different companies and countries can go together by following the same standards. They can also electronically exchange documents like purchase order, invoice, shipping notice etc.

Electronic data interchange is not a new concept it is very old concept, existed more than 30 years but due to change of e-commerce industries the demand of EDI also increases.

*C. Web-Scraping*

Web scraping also called as Data Extraction/Web Harvesting/Screen Scraping which is used by small to big companies. Web scraping also used many startup companies for managing large web data. In simple word we can say that web scraping is an automation technique which is used to extract the unorganized web data into the proper format or according to requirement of web site.

Web Scraping helps online retailer or seller to manage pricing, images, stock list, product description, reviews, etc. to handles. Without web scraping it is not easy to handle millions of products.

Web Scraping almost uses in all online companies which wants to success in online as well as their competitor also. There are many ways to use web scraping in business. Some of these are:
   – Scrape Products & Price for comparison.
   – To build vertical specific search engine
   – To provide better advertisement
   – Online presence
   – Get public feedback
   – Business specific scraping
   – Price competitiveness
   – Job scraping sites

*D. Web Mining*

In E-commerce and E-services web mining application is a new research technique in the field of web mining. We mining provide important tool for understanding how e-commerce and e-services is work. Without web mining tool it is not easy to understand e-commerce and e-services working, requirement, process etc.

In today's business world, structure mining is quiet helpful to make connection between two or more business website. Through marketing campaign the company can identify the strength and weakness of web pages with the help of web mining.

*E. Heat Map*

Heat map is not a big tool, heat map are the important tool for those people who are running an e-commerce site. Heat Map helps e-commerce sites to determine which part on the web page user focus most, which products they are view most, which product they are looking for, etc. Heat map helps to provide better services or products which are customer looking. It helps to improve website performance as well as revenue.



Fig. 5: Heat map

There are many techniques used in heat to know the users activity on the website. The figure 5 shows working of these techniques.

1) Hover Map: Hover amp used to track the users mouse movement in the web page. It shows where the visitors have hovered their mouse cursor in site.
2) Click Map: Click map are quiet helpful, it help to know where user is clicking on the web page, which area they are clicked most like product image, buy button, add to cart etc. Click map maintain record of user click on different area in website which helps e-commerce site to improve customer needs, user experiences etc.
3) Attention Heat Map: Attention heat map is probably the most helpful for collection bunch of usable data. These map reveals how much time user spend on the website, which page they are visited most, how many times they are scroll the page either horizontally or vertically and which page they are given more time.
4) Scroll map: Scroll map tells you how far user scroll down the page and where tends to bounce on the website.

*F. Cloud Computing*

Cloud computing is a new technology which deals with high tech products and has wide prospects for development. Cloud computing is network that is connected to large no. of computers connected to each other through the internet. Cloud computing provides clients data storage and give him computing services in very fast, reliable and more secure way. Basically cloud computing provides a services where client or user can store data and give him access of that data through remote location.



Fig. 6: Cloud Computing

Cloud computing provide help organization to increase their productivity, reduce the cost of maintenance and provide better access to their customer. The cloud computing uses the **"pay-as-you-go"** model for their customer while giving access or try the application or infrastructure. There are five basic elements grow due to cloud computing in E-Commerce. These elements are:

- E-commerce companies
- Customers of E-Commerce companies
- Cloud Computing
- Banking Sector
- Cloud Service Provider.

Due to cloud computing organization infrastructure and maintenance cost is reduce. The organization or client can only pay cloud service provider for giving access of those services. There are several benefits of using cloud computing some of these are:-

- It provide large storage
- Strong security
- Easy and Fast Access
- Increase IT Flexibility
- Better service for citizen
- Reduce cost
- Cloud Computing Scalability
- Mobility
- Global Expansion
- Quality of E-Commerce
- Cost of Construction and operation

## VI. CONCLUSION & FUTURE OF E-COMMERCE IN INDIA

In the last few years India has taken unprecedented strides in many industries. The impact of this on e-commerce cannot be overstated. E-commerce has made a big change in the overall economy and employment opportunities. The internet user plays an important role in e-commerce According to report of **IAMAI** (Internet and Mobile Association of India) the internet user is expected to reach 450-500 million in the month of June 2017. If the internet user increases then many areas get effected like there is more demand of internet, mobile sales increases more because 41% internet is operated by mobile phones, cybercafé demand also increases etc. fields are effected due to increases of internet user.

The revenue of e-commerce market in India was $3.8 billion in 2009, $17 billion in 2014 and $23 billion in the year 2015. This revenue will likely to touch almost $38 billion in 2016. These will show India e-commerce market has grown almost 1000% from year 2009 to 2016. The e-commerce market is expected to cross $60 billion to the ending of year 2017. This revenues show e-commerce can make a huge business in India in future. The major category online shopping sites focus are mobiles phones, beauty and cosmetics, cloths, electronics, computer and software, home and appliances, etc.

The total population of India in the year 2016 was 1.3 billion and from there only 450 million internet users. It means in India there is only 50% people(people having minimum 18 year age) uses internet and from that India has make very strong online business in e-commerce industries. If this percentage is increase then assume where India is

reached in future. The job opportunity is also increases and more people get the employment.

The figure 7 shows how much online market are grow in last few years and where these market reach in future in Indai.
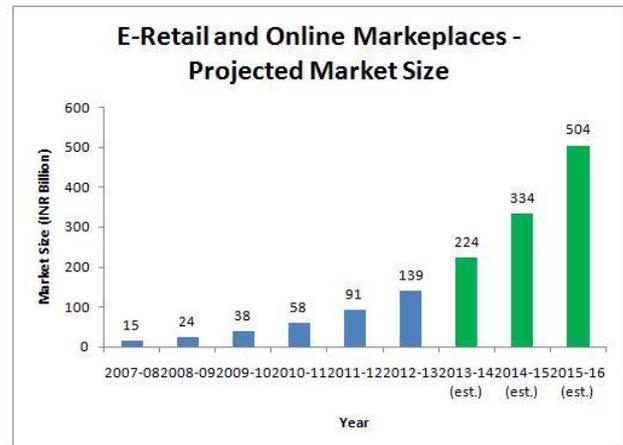
Fig. 7: Online Market revenue in India

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