

E-Commerce Secured Payment in India and its Challenges

Priyadarshan Nayak¹, Abani Kumar Bisoyi²

^{1,2} Department of Computer Science and Engineering, Einstein Academy of Technology & Management, Bhubaneswar, India

Abstract

E-commerce, is nothing but the purchase and sale of goods and services between businesses and consumers over the Internet. Technologies used in electronic commerce include mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data exchange (EDI), inventory management systems, and automated data gathering systems. Consumers benefit from the reduced costs supplied by wholesalers who retail their items. This tendency will grow as websites address customer security and privacy concerns. The popularity of e-commerce has resulted in a significant growth in regional and global trade in products and services. Nowadays, it serves as the world's virtual main street. This online business refers to e-commerce, which has recently gained traction in developing countries such as India. Today, e-commerce has grown into a massive sector. This report is the result of a review of e-commerce-related research projects. The purpose of this study was to explore the current trends in e-commerce in India, as well as the problems and opportunities that exist in the industry.

Keywords: Electronics Commerce, Online shopping, Payment Gateway

I. INTRODUCTION

E-commerce stands for electronic commerce. It means dealing in goods & services through the electronic media & internet. The rapid growth of e-commerce in India is being driven by greater customer choice & improved convenience with the help of internet the vendor or merchant who sells products or services directly to the customer from the portal using a shopping basket system or digital cart & allows payment through debit card, credit card or electronic fund transfer payments. In the present scenario e-commerce market & its space is increasing in demand as well as an impressive display of a particular type of services. E-commerce is already appearing in all areas of business, customer services, new product development & design. E-commerce business is growing in India because of wide range of product with minimum price wide range of suppliers & customer's internet. In this modern era every business unit wants to join online business because increasing ratio of internet users in India. E-commerce in India is still in growing stage but it offers considerable opportunity.

WHAT IS E-COMMERCE?

E-commerce (electronic commerce) is buying and selling of goods and services or the transmitting of funds and over an electronic network, primarily the internet. E-commerce replaces the traditional business method. This can facilitate improvement in business growth leading to substantial cost saving and increased competitiveness and efficiency.

TYPES OF E-COMMERCE:

There are 4 types of E-Commerce

1) Business-To-Business E-Commerce:

B2B E-commerce is simply defined as e-commerce between companies. This is the type of e-commerce that deals with relationships between and among businesses. About 80% of e-commerce is of this type, and most experts predict that B2B e-commerce will continue to grow faster.

2) Consumer To Business E-Commerce:

Business-to-consumer commerce, or commerce between companies and consumers, involves customers gathering information; purchasing physical goods (i.e., tangibles such as books or consumer products) or information goods (such as software, or e-books); and for information goods, receiving products over an electronic network. It is the second largest and the earliest form of e-commerce.

3) Consumer To Consumer E-Commerce:

Consumer-to-consumer electronic commerce involves the electronically facilitated transactions between some third party. It perhaps has the greatest potential for developing the new markets. C2C websites form a perfect platform for buyers and sellers who wish to buy and sell products of similar interest.

4) **Business To Government E-Commerce:**

Business-to-government E-commerce or B2G is generally defined as commerce between companies and the public sector. It consists of a marketing products and services to various government levels.

OBJECTIVES OF STUDY

The objectives of present study are:

- 1) To explain the concept of E-Commerce.
- 2) To analyze the present trends & opportunities of E-commerce in India.
- 3) To examine the barriers of E-commerce in India.
- 4) To study the India's prospects in E-commerce.
- 5) To study the various challenges faced by E-commerce in India.
- 6) To study the various trends in E-commerce.

LIMITATIONS OF THE STUDY

The study has been conducted only by collecting the secondary data.

II. RESEARCH METHODOLOGY

The process used to collect information & data for the purpose of making business decisions. The methodology may include publication research, interview, surveys and other research techniques & could include both present & historical information. The researcher has used only secondary data that has been collected from various articles, journals, books, websites etc.

This has been used to study the conceptual framework, definition, present trends and some of the challenges and opportunities of E-commerce in India. All the data included is the secondary base and proper references have been given wherever necessary.

III. RESULT & DISCUSSION

India has an internet user base of about 354 million as of June 2015. Despite being third largest user base in world, the penetration of e-commerce is low compared to markets like the United States, United Kingdom or France but is growing much faster, adding around 6 million new entrants every month. The industry consensus is that growth is at an inflection point.

In India, cash on delivery is the most preferred payment method, accumulating 75% of the e-retail activities. Demand for international consumer products (including long-tail items) is growing much faster than in-country supply from authorized distributors and e-commerce offerings. As of first Quarter, 2015, seven Indian e-commerce companies have managed to achieve billion-dollar valuation. Viz. Flipkart, Snapdeal, InMobi, Quikr, Amazon India, OlaCabs, and Paytm.

RECENT TRENDS IN INDIAN E-COMMERCE INDUSTRY

India is a massive E-Commerce marketplace now with every age group comfortably transacting online – more often preferring shopping online instead of visiting offline stores for a bigger gamut of choices and offers.

E-Commerce industry is growing at an astounding rate in India and is expected to account for 1.61% of the global GDP by 2018. According to a report by Forrester, India is set to become the fastest growing market in the Asia-Pacific region with an expected growth rate of over 57% between 2012 and 2016.

1) **Men in India shop 3X more than women**

While women continue to dominate the in-store markets, men with disposable incomes have taken it upon themselves to play the larger role in online shopping.

2) **Cash-On-Delivery (COD) remains the most preferred online payment method.**

We Indians love the Cash-On-Delivery option; it gives us more control over online transactions since we don't have to pay until the product is at our doorstep. COD option during checkout has also been proven to boost impulse purchases.

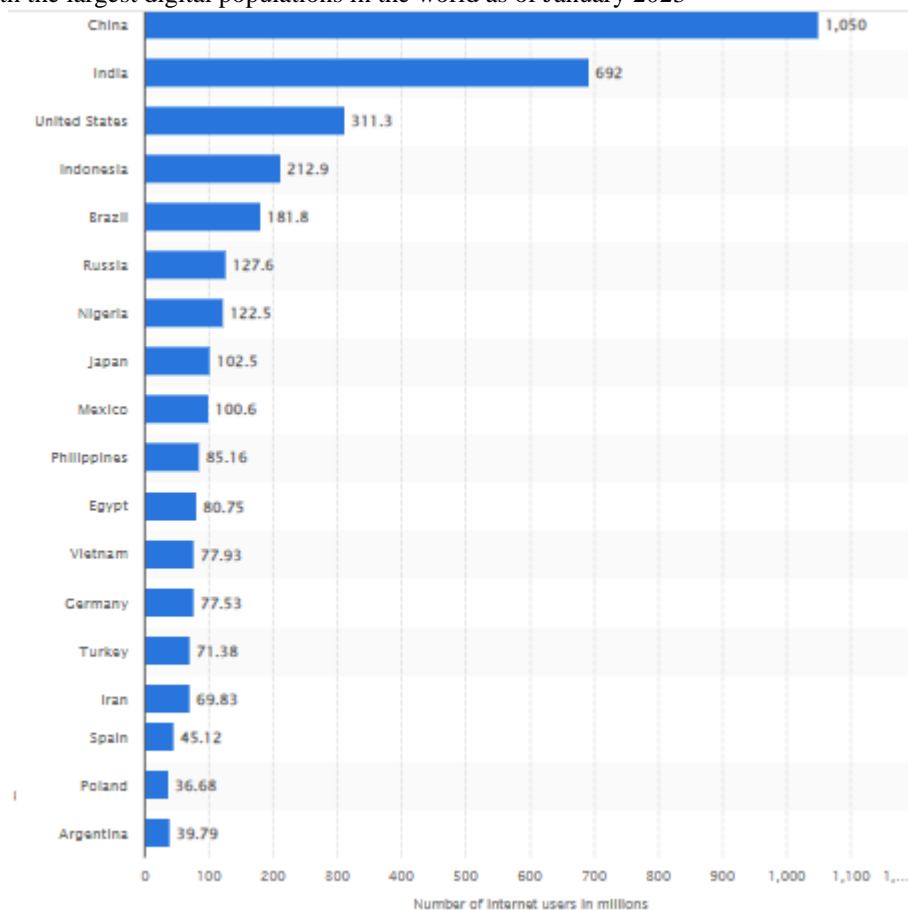
3) **60% of online purchases happen during business hours (9AM-5PM)** This proven trend is a myth-buster that shows how integral a part online shopping has become in our day-to-day lives. Marketers can use this fact to schedule their promotions across advertising channels accordingly.

OPPORTUNITIES AND CHALLENGES

Backed by increased online user base and mobile phone penetration, Indian e-commerce has seen impressive growth in the last few years. Considering India's demographic dividend and rising internet accessibility, the sector is slated to scale greater heights. Although, India's overall retail opportunity is substantial, the sector is beset with some serious challenges. We take into the current e-commerce landscape and the sector's key drivers & challenges. Internet penetration is one of the factors affecting the growth of e-commerce. The following table provides information about the percentage of internet penetration in different countries of

the world:

Countries with the largest digital populations in the world as of January 2023



KEY DRIVERS OF E-COMMERCE IN INDIA

Large percentage of population subscribed to broadband Internet, rapidly increasing 3G internet users, and a recent introduction of 4G across the country.

Explosive growth of Smart phone users.

Rising standards of living as result of fast decline in poverty rate. Availability of much wider product range.

Competitive prices compared attractive to the customers.

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

I. CHALLENGES IN THE E-COMMERCE SECTOR

There are some barriers responsible for slow growth of e-commerce in India. Hamilton (2002) indicate some barrier in using e-commerce including security problems, lack of skills, cost etc.. People do not yet sufficiently trust paperless, faceless transactions. For the growth of E-business in India it needs a focus and should to make country in the lines of E-business.

1. In India, Cash on delivery is the preferred payment mode: In India, most of the people prefer to pay cash on delivery due to the low credit card diffusion and low trust in online transactions. Not like electronic payments, manual cash collection is quite perilous, expensive and laborious.
2. Infrastructural Problems: Internet is the backbone of e-commerce. Internet penetration in India is still very low (34.8%) compared to other countries. The quality of connectivity is poor in several regions. But both these are real threats for the growth e-commerce market in India
3. Incorrect postal address: When the customer places an online order, he will get a call from the company, asking about his exact location. The given address is not enough because there is always a little standardization while writing post addresses. It is also one of the biggest challenges that faced by e-commerce in India.
4. Absence of Cyber Laws: Other big challenge associated with e-commerce market is the near absence of cyber laws to regulate transactions on the Net. WTO is expected to enact cyber laws soon. The India's

Information Technology (IT) Bill passed by the Indian Parliament on May 17, 2000 intends to tackle legislatively the growing areas in e-commerce. As it stand today, the Bill deals with only commercial and criminal areas of law. However, it does not take care of issues such as individual property rights, content regulation to privacy and data protection specific legislation.

5. **Privacy and Security Concern:** In case of start up and small business, Business owners fail 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. Usage of unauthorized soft wares will not protect the customer.

6. **Payment and Tax Related Issues:** 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. The Government of India is committed to replace all the indirect taxes levied on goods and services by the Centre and States and implement Goods and Services Tax (GST) by April 2017. One-Country-One-Tax is the main motive of GST.

ADVANTAGES OF E-COMMERCE

To Consumers

The distinct advantages e-commerce can offer to the consumers include but are not confined to the following only:

- (i) Consumers have a much wider choice available on the cyber market.
- (ii) They bear lower costs for products due to increased on-line competition among sellers.
- (iii) Because of wide-scale information dissemination, consumers can compare products, features, prices and even look up reviews before they select what they want.
- (iv) They enjoy wider access to assistance and advice from experts and peers.
- (v) They enjoy saving in shopping time and money.
- (vi) Consumers also avail of fast services and delivery of products and services.
- (vii) They also have the convenience of having their orders delivered right to the doorstep.
- (viii) Finally, consumers are driven to e-shopping in hopes that even branded goods cost less on the Net.

To Suppliers

The major advantages that e-commerce can bring to the companies/suppliers are:

1. It minimizes inventory cost

E-commerce venture need not maintain huge inventories or expensive retail showrooms. Their marketing and sales force is a fraction of that of traditional mortar-based businesses. E-commerce can minimize inventory costs by adopting just-in-time (JIT) system enhancing the firm's ability to forecast demand more accurately.

2. It can improve customer services

It has been found that providing both customer and after-sale services account for up to 10 per cent of the operating costs.

By putting these services on-line under e-commerce, these costs get reduced, on the one hand, and simultaneously the quality of services also gets improved, on the other.

High quality customer relationship called "customization" is crucial for retaining customers in the e-commerce environment. That is the reason why Customer Relationship Management (CRM) has become the buzzword which everybody is talking of now. E-commerce provides ample opportunity for Customer Relationship Management solution and, in turn, in establishing better relationship with the customers.

It becomes absolutely necessary for the company to enhance customer loyalty. Otherwise the customer, who is full of choices, can jump from one website to another. If company is to stay in business then it will have to deliver the products or services to customers as they want, when they want, and how they want.

3. It reduces distribution costs as well

The Electronic Data Interchange (EDI) based on Organization for Economic Co-operation and Development (OECD) study has revealed that the time needed to process an order declined abruptly by a minimum of 50 per cent to a maximum of 96 per cent. It is really amazing.

IV. CONCLUSION

E-commerce is changing the way of buying & selling of product & services in India. E-commerce is the future of shopping. Due to E-commerce the gap has been reduced between manufacturer & consumer. According to Indian population their vast scope for e-commerce because currently in India only 19% people using internet for selling & buying goods & services so remaining percentage we can consider that we have scope in Indian Market. There is weak Cyber security Law in India that is why Indian People are facing

challenges toward e-commerce. The future of e-commerce in India would be bright in the upcoming years if all essential factors would be implemented, by establishing cyber & have their benefits as people wish. The role of government is to provide a legal framework for e-commerce so that while domestic & international trade are allowed to expand their horizons, basic right such as privacy, intellectual property, prevention of fraud, consumer protection etc. are all taken care of. The expansion of e-commerce has been developed in rural as well as urban area in reasonable cost for consumption, because of that more people are getting linked with e-commerce & the ratio of that is getting increase day by day.

E-commerce provides tremendous opportunities in different areas but it requires careful application for consumer protection issues. Growth of e-commerce would also depend to a great extent on effective IT security systems for which necessary technological and legal provisions need to be put in place and strengthened constantly.

While many companies, organizations and communities in India are beginning to take advantage of the potential of e-commerce, critical challenges remain to be overcome before e-commerce would become an asset for common people.

REFERENCES

- [1]. "Retail e-commerce sales CAGR forecast in selected countries,
- [2]. "How to prepare your products and brand for conversational commerce"..
- [3]. Power, Michael 'Mike' (19 April 2013). "Online highs are old as the net: the first e-commerce was a drugs deal". The Guardian. London. Retrieved 17 June 2013.
- [4]. "The Economic Impacts of NIST's Data Encryption Standard (DES) Program". National Institute of Standards and Technology. United States Department of Commerce. October 2001.
- [5]. "Four Products for On-Line Transactions Unveiled". Computerworld. IDG Enterprise. 10 (4): 3. 26 January 1976.
- [6]. Tkacz, Ewaryst; Kapczynski, Adrian (2009). Internet — Technical Development and Applications. Springer. p. 255. ISBN 978-3-642-05018-3. Retrieved 28 March 2011. The first pilot system was installing in Tesco in the UK (first demonstrated in 1979 by Michael Aldrich).
- [7]. 1988 Palmer, C Using IT for competitive advantage at Thomson Holidays, Long range Planning Vol 21 No.6 p26-29, Institute of Strategic Studies Journal, London- Pergamon Press [now Elsevier B.V.] December 1988.
- [8]. "E Commerce – Essays – Hpandurang92". Study mode. Retrieved 17 June 2013.
- [9]. "Online shopping: The pensioner who pioneered a home shopping revolution". BBC News. 16 September 2013.
- [10]. Aldrich, Michael. "Finding Mrs Snowball". Retrieved 8 March 2012.
- [11]. "The Electronic Mall". GS Brown. 30 April 2010. Archived from the original on 15 May 2013. Retrieved 17 June 2013.
- [12]. "Tim Berners-Lee: WorldWideWeb, the first Web client". W3. Retrieved 21 December 2012.
- [13]. Geiger, Conrad. "NeXT Nugget News". next.68k.org. Conrad Geiger. Archived from the original on 8 September 2015.
- [14]. Tayler, Jesse (11 April 2013). "Jesse Tayler talks App Store and NeXTSTEP with AppStorey".
- [15]. "AppWrapper Volume 1 Issue 3 Ships" (press release).
- [16]. "Attention Shoppers: Internet Is Open". The New York Times. 12 August 1994.
- [17]. Kevin, Kelly (August 2005), "We Are the Web", Wired, 13 (8)
- [18]. Bunnell, David (2001). "The eBay Business Model". The ebay Phenomenon: Business Secrets Behind the World's Hottest Internet Company. John Wiley & Sons. pp. 71–81. ISBN 9780471436799.
- [19]. "First Electronic Stamps Being Put to Test". Sunday Business. 6 April 1998. Retrieved 16 July 2013.