

# E-Commerce Adoption And Barriers Hindering In Developing Countries: A Review

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## ABSTRACT

Electronic Commerce Abstract- Electronic commerce may be a relatively new idea that crept into the business vocabulary throughout the 1970s. An image of commercial electronics is rising during which the internet can become the essential dial-tone for conducting business by the year 2000. Electronic commerce (EC) has the ability to improve productivity as well as efficiency in many regions and, and hence gained significant attention globally.

However, there has been some doubt regarding the relevancy of ecommerce for developing countries. Successful electronic commerce sites enable businesses to make low price or a lot of efficient channels for product sales or to make new business opportunities. The success and acceptance of most online businesses depend upon many factors, each technological and social. In the present paper, discussions regarding these barriers hindering e-commerce adoption in developing countries are reviewed.

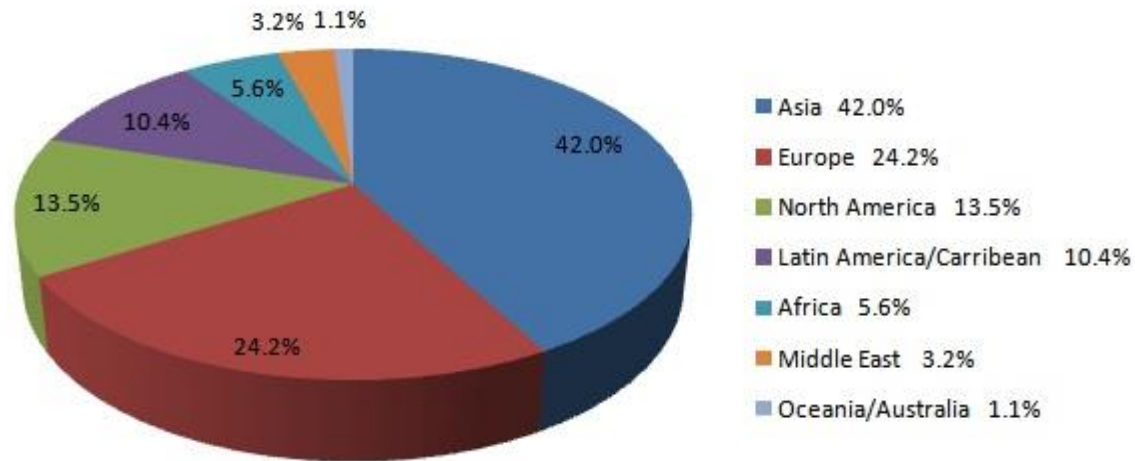
**Keywords:** Electronic Commerce, Supply Chain Management, Mobile Commerce, Electronic fund transfer,

## I. INTRODUCTION

### *I.1 E-Commerce*

The meaning of E-commerce is electronic commerce. It can be explained as conducting business of goods and services by the means of internet or electronic media. E-commerce includes involves carrying out a trade via internet utilizing the information technology such as Electronic Data Interchange (EDI). E-Commerce links with a website comprising the vendor on Internet, who carries out his/her business of products or services directly from a portal; to the end consumers. The portal is subjected to a digital shopping cart and permits the payment by the means of EFT (Electronic fund transfer) payments.

## World Internet Users



**Fig.1** Internet utilization at global level [source:

[https://en.wikipedia.org/wiki/File:World\\_Internet\\_users\\_2010.png](https://en.wikipedia.org/wiki/File:World_Internet_users_2010.png)]

The internet has resulted in the development of E-Commerce (Electronic commerce), within which trading and transactions are carried out over telephone communication. E-Commerce has 2 major aspects: economic and technological. The stress of this course can show you ways to induce started within the complicated and exciting world of Electronic Commerce. Exclusive standards and fresh facilities are constantly rising and their proper understanding is important for the success of an operation and particularly for those that are assigned a requirement to select, establish, and maintain the required infrastructure.

EDI that grown from transactions of financial aspect to other transaction protocols and increased the participation of corporations from financial institutions to retailers services, manufacturers, and so on. The emerging commercial sectors of internet inside the early 1990s and its quick development resulted in several impending customers, the terminology electronic commerce was created.

### ***1.2 Trust and Risk Perception in E-commerce***

E-commerce is a significant commercial model and trades channel for several companies. Since past few years, there is a drastic alteration in online market: (1) the number of users of internet and its frequency is highly elevated (2) quantitative increase in online shoppers; and (3) companies are getting profit from online retail sectors (Li, Pienkowski, Van Moorsel, & Smith, 2012). As per Forrester's investigation, by the year 2022 in US the online retail sales will grow for 17% up targeted 13% in 2017 (Forrester, 2017b). In contrast, e-commerce sector comprised in Western Europe will advance with average of 11.3% annually for the coming 5 years, reaching almost 14% of total retail sales by 2022 (Forrester, 2017a).

## II. TYPES OF E-COMMERCE

**II.1 Business to Business (B2B):** An electronic market transaction within which trades, governments, and several companies rely on communication computer-to-computer communications in order to carry out their business;

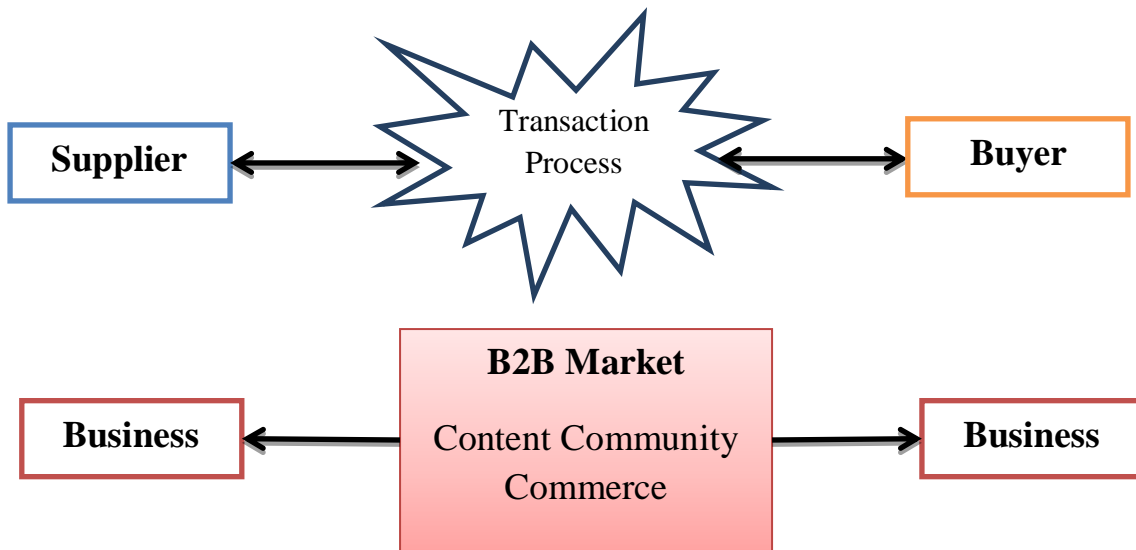


Fig.2 B2B Model

**II.2 Business to Customer (B2C):** Customers investigate product or services by the means of electronic publishing, and purchase them using e-money and protected systems of payment and have them supplied electronically or by means of physical channels;

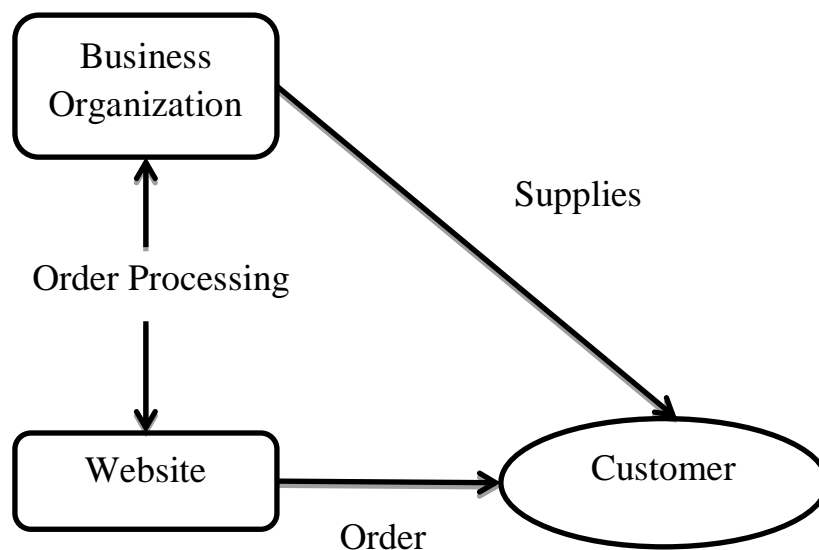
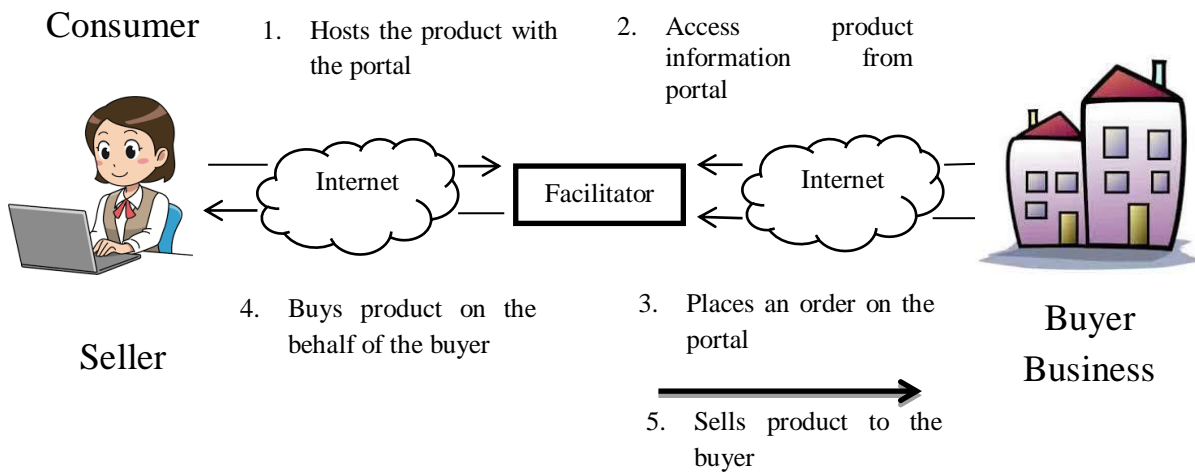


Fig.3 B2C model

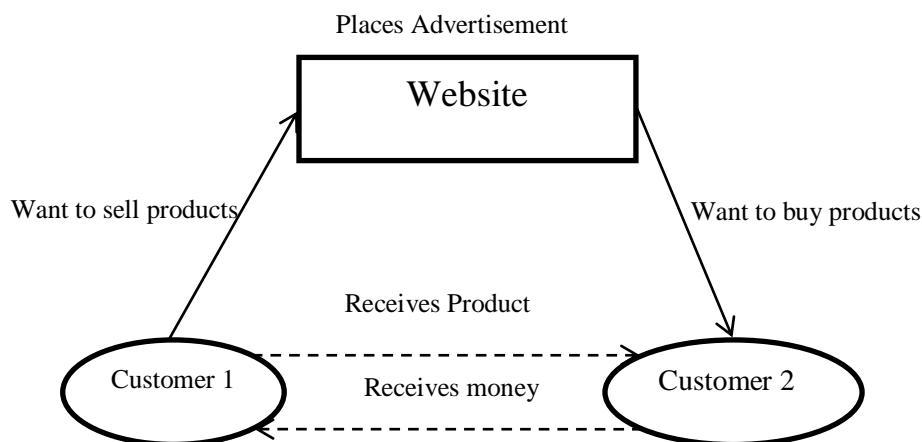
**II.3 Customer to Business (C2B):**a category of transactions done online where consumers begin business with organizations – these are mostly suppliers;



**Fig.4** C2B model

**II.4 Business to Employee (B2E):**Business to employee in e-commerce is developing in use. This kind of E-commerce is a lot of usually called an ‘Intranet’. An intranet may be a web site developed to produce employees of a company with data. The intranet is usually access through the organizations network, it will and is usually extended to an Entrant that uses the net however restricts uses by sign on and password.(Dr. Shahid Amin, Prof. KeshavKansana, JenifurMajid (2016)

**II.5 Customer to Customer (C2C):**Consumers directly transact with different consumers within the cyberspace. Moreover, Hoffman & Novak, (1996) in their submission noted that C2C interactions are important model in internet primarily based transactions and any recommended the necessity for corporations to require such innovation into thought in their market planning efforts. Their assertion is exemplified by the expansion of social media network sites in recent times like Facebook, Twitter, LinkedIn, etc.



**Fig.5** C2C model

## III.E-COMMERCE ARCHITECTURE

### III.1 Mobile Commerce

Mobile Commerce Mobile commerce (m-commerce) may be viewed as a set of e-commerce and refers to any transaction with price that's conducted via a mobile network. M-commerce could be a scientific boundary and is an eye-catching space for analysis in arrears to its potential applications in addition with relative novelty, as well as rapid growth. M-commerce comprises of selling and purchase of services also the products by the means of wireless technology i.e. hand-held devices such as cell phones and (PDAs). (Rajesh Kumar, Dr.Rahul Rishi, Dr.Mukesh Kumar, 2012)

### III.2 Electronic Funds transfer

The electronic checking system for electronic payments has been in use since the late 1960s. for several consumer end users, electronic checking and electronic payment are a similar factor, though the assertion doesn't apply all told cases. Electronic checking uses the present banking structure to its fullest potential by eliminating paper checks.(KaramjeetKaur, Dr. AshutoshPathak2015). Electronic fund transfer and electronic checking are synonymous. Electronic fund transfer is a very varied system. Examples embody:

- a. Fees payment at the university by the means of the banking automatic teller machine (ATM) network,
- b. Bill payments of telephones by the means of monthly bank account deductions, and
- c. Large-value (ranging from thousands to trillions of dollars) interbank overseas fund transfers.

### III.3 Supply Chain Management

Supply chain management could be a comprehensive arrange for the utilization of computer network technology within the provide chain business flow, logistics, data flow, capital flow etc. end to plan, organize, coordinate and control. Establish an data platform, the company's vertical integration, data sharing and timely delivery, to promote e-commerce surroundings, the conception of provide chain management demand improvement. (Nimna.V.P, 2017)



Fig.6 Supply chain management

[Source: <http://linkpat.info/supply-chain-management-process-flow-chart-e479.html>]

### III.4 Internet Marketing

Internet marketing and E-commerce each deals with on-line transactions. Internet marketing could be a part of e-commerce. Internet marketing is analogous to e-commerce on-line marketing or e-commerce web site marketing. Every single E-commerce and internet marketing is reachable 24 hrs to the clients and is economical methods in promoting business. Marketing through internet is linked with different model of internet. It includes of e-commerce business model wherever product and services are sold directly to customers (B2C), businesses (B2B) or from one client to alternative consumer (C2C). (Rashad Yazdanifard, Melissa Venpin, Wan Fadzilah Wan Yusoff, Mohammad Rabiul Islam, 2014)

## IV. REASONS FOR E-COMMERCE ADOPTION

Harindranath, et al., (2008) stressed that a well-articulated e-Commerce inside an organization typically facilitates growth and growth. Hadjimanolis (1999) but declared that the appliance and use of e-Commerce in developing countries will cause substantial savings in communication prices, marketing, advertising, furthermore as production processes (supply chain) and also the delivery of products and services to numerous elements of the globe.

MacGregor (2010) any stressed that the possibility of searching online from anywhere is that the most obvious and most ordinarily cited advantage of e-commerce, and was found to be the most vital perceived client advantages of internet shopping. Saffu, et al., (2008) within the submissions argued that since the boundaries of e-commerce aren't defined by geographical or national borders, shoppers can benefit from a large choice of vendors and product, as well as a wider availability of hard-to-find product. The internet will offer consumers with up-to-the minute data on prices, product availability, product sorts, product alternatives, etc. And shoppers could benefit from the shopping method being faster within the market-space than within the market-place as results of the rapidity of the search method and transactions. Bakos (1998) and Kurnia (2006), sees e-Commerce as responses to the changing surroundings because of changing tastes and new forms of customers who are currently demanding quality and also the new sets useful propositions of what these customers want, after they want it and the way they need it yet because the value they're able to pay. Additionally, different reasons for e-Commerce adoption include however not limited to:

- **Access to extensive online information:** This, consistent with McDougall and Levesque (2000) provides client access to large amount of data supported that selections may be made;
- **Price comparison:** Kapurubandara (2009) stressed that the web market place has presented a stiff competition among sellers and there is always a war on value – this but, provides the customers chance to form wide selection of choices;
- **Time savings:** Working folks will conveniently mix their work schedule and looking with ease;

- **Online delivery:** Purchases are delivered with ease on the online channel like e-tickets, e-books, etc. Efendioglu, et al (2004) additionally stressed that the total industrial cycle are often performed by means of network – giving prompt admission to goods;
- **Convenience and accessibility:** This means a client will search anytime from anyplace within the world – and this singular profit is commonly the most cited reason for e-Commerce adoption.

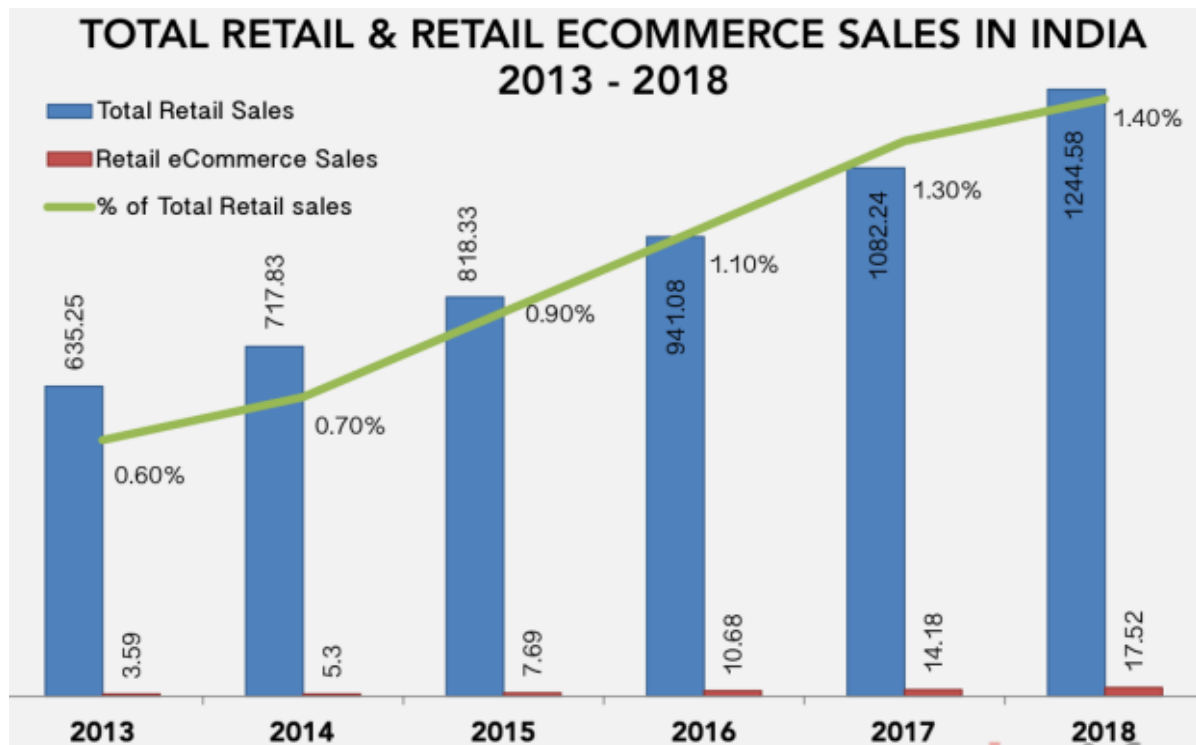


Fig.5 E-commerce penetration in India [source: <https://dazeinfo.com/2015/01/07/retail-e-commerce-sales-in-india-growth-2014-2018-report/>]

## V. BARRIERS TO E COMMERCE

1. **Shortage of information:**the trades in e-commerce fight to hunt out suitable information data regarding the pertinent laws, protocols in addition with regulations, and methods to implement in foreign markets. (ZoranKalinic, 2015)
2. **Barriers relating to customs:**complex and overly-burdensome process of customs, along with duties of custom on incomes and fraudemerging at border creates prices and problems to body regarding e-commerce trades. (ZoranKalinic, 2015)
3. **Payments and taxes:**the need regarding solutions for payments and fluctuations in the calibration of taxes creates prices and management problems in e-commerce. (BurcuKuzucuYapara, SedaBayrakdara, Mustafa Yaparb, 2015)
4. **Intellectual property rights barriers:**the trades in e-commerce are wide-open to knowledgeablepossessions violation of rights and have struggles in safeguarding the rights to exclusiveness of material.(S.H. Kwok, C.C. Yang, K.Y. Tam 2004)

5. **Cross-border data transfer:** legislation which restrict the capability of any trade to capture and convey information, specifically data of personal details, across international borders hinders e-commerce. (Bin Hu, QianqianLuo 2018)
6. **Other barriers:** roaming charges of roaming, fraud, problems in getting insurance, product certification, lack of standards, rules of origin, rules on the launching of audio-visual material (windowing) and state subsidies.

## VI. MERITS & DE-MERITS COMPRISING E-COMMERCE

### Advantages of E-Commerce

- It enhances sales rate and decreases the price.
- A well promotion on web will cover even the smaller companies to reach to the potential clients among the nations on global level.
- E-commerce will help business in identification of exclusive suppliers and partners.
- The either ways of transaction will be reduced due to reduction in the prices by the e-commerce.
- Issues on tax refunds, retirement funds, welfare support etc can be done on less price and securely. (Ayushi Y. Vadwala, 2017)

### Disadvantages of E-Commerce

- Some of the trade goods and products like food items, jewelry cannot be observed accurately from remote areas.
- Several firms face problems in hiring and retraining employees for e-commerce customs and develop their skills as per digital age.
- Firms that give new digital based services and facilities are quite costly and its outreach for many people.
- Consumers are scared of causing their credit card numbers over the internet and having on-line merchants. (Ayushi Y. Vadwala, 2017)

## VII. CONCLUSION

The perspectives on electronic commerce conferred and therefore the implications to be drawn here are the conclusion that the world of economics is actually borderless, yet as boundary less, and people who don't see this can produce a lot of difficulties for themselves and their organizations than otherwise. During this paper studied E-Commerce. Several authors discussed risk perception for trust in e-commerce. It additionally includes the various forms of E-Commerce. Some technologies are presented associated with the E-Commerce. During this explain the reason for E-Commerce adoption and what forms of barriers in E-Commerce. The statistical data shows that penetration of e-commerce sectors are gradually raising in markets of India.

More and more internet users are emerging and trusting e-commerce sites for making their livelihood better. Several authors have reviewed in their work and discussed regarding the implications in ecommerce sector as well as the limitations by defining their merits and demerits of depending regarding e-commerce. However, ecommerce sectors are common to most of the individuals in the society still it is out of reach for many people especially those who are living in rural areas and are deprived of using electronic devices.

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