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Article in *Journal of Contemporary Issues in Business and Government* · May 2021

DOI: 10.47750/cibg.2021.27.03.090

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An Overview of Electronic Commerce (e-Commerce)

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Abstract: The world economy is witnessing a transition. All companies are transformed into information-based operations through online technologies. The pace of technical transition is so exponential that modern electronic commerce is now making significant shifts in the economic environment, impacting all areas of industry. The Web has expanded companies' scope. The vast quantity of business information made accessible by the global network that facilitates the gathering of information between firms, a corporation, its clients and the various divisions of a business is increasing exponentially. The information-based virtual value chains for any company cannot be overlooked operationally or strategically. This review article discussed the aspects of electronic commerce including its importance, facilitators, benefits, challenges and scope in the Indian market.

Keywords: Business, Consumer, Electronic commerce, Internet, Market strategy, Growth, Profit.

INTRODUCTION

Globalization as well as information technology (IT) change the method of the business doing by the organizations. In almost all companies that have invested largely in the IT infrastructure for the ultimate growth of their company, the IT system is implemented and integrated. The utilization of e-commerce (EC) as a way to execute transactions related to business is increasing concern. It has been a priority for many companies [1]. With EC, businesses will link "Just in Time production" and "Just in Time" to their trading partners, who boost their strategic abilities worldwide. EC's description is not widely agreed upon. From the communications point of view, EC may represent information, services as well products or online payments through telephone lines, computer networking, or other means from a communication point of view. EC implements technology for automating corporate transactions and workflows from a business process perspective. From a service viewpoint, EC is a way of lowering services costs while enhancing product efficiency and speeding up the delivery of services, which addresses industry, customers and management's desire. EC offers online shopping and distributing goods and information for the Internet and other online resources from an online point of view. Because of Internet and network technology's popularity and accelerated expansion, the electronic industry has become a significant field for contemporary enterprises. Large company operations are being carried out online today. People sell and purchase products and services online, and without internet infrastructure, certain purchases cannot be done [2].

This review article provides an overview of electronic commerce, mainly focused on its definition and why it is important for the modern market. It also discussed the different types of electronic commerce fields and their facilitators. Apart from the benefits offering by e-commerce, there are some disadvantages also that will be discussed in the subsequent sections. The last sections will discuss the trend and future of electronic commerce in India.

E-Commerce and Its Importance

E-commerce is referred to as electronic commerce. It means the electronic media and the internet for dealing with goods and services. E-Commerce entails a company accessing the internet as well as IT, such as the electronic data interchange (EDI). E-commerce concerns an internet vendor's website, trading goods or services to the user directly from the platform. The gateway uses a wireless purchase cart or a purchase basket to pay by credit card, debit card or Electronic fund transfer (EFT). A further description is as follows: Electronic communications and digital information processes in business transactions are used to create, modify and redefine value generation relations between, and between, organizations and individuals [3].

With the increasing spread of ICTs, specifically the Internet, the global corporate world pushes rapidly into e-commerce (Business-to-Business). As the Internet enables consumers to enter the global economy, they can compare prices across areas, find out how they vary by request, and become aware of substitution. The buyers obtain a distinct advantage. Thanks to market openness, consumers can conveniently compare e-commerce offerings from different websites. The rivals would immediately be one click away from the customer if the company is electronic. If consumers aren't comfortable with certain e-goods, content's pricing or services, they

can adjust even more quickly than in traditional terms. They don't need a physical store from the point of view of the vendors [4].

E-Commerce Facilitators

1. Internet:

E-commerce has grown through huge penetration of the internet. The Internet and intelligent mobile telephones have literally been part of every life. Internet no longer constitutes an intelligence source, however, it is an efficient means in which horsemen, and carpenters, physicians etc. can buy, read, communicate and even receive service. The supply chain is slender and intelligent, as digital networks can quickly link to customers, which greatly minimizes pollution and benefits green businesses. In the last 15 years, the ICT revolution has powered the economy unprecedentedly. The Internet and its services have helped grow new markets with huge technological advancements. In the 1980s the population of internet users was small, and there was a gradual but steady increase until 1994 when the number of test users was growing. The number of network users exploded with the advent of the World Wide Web and later the expansion of multimedia content. The internet has in turn evolved even quicker than any other previous medium. The United Nations International Telecommunication Union (ITU) recently forecast 3.2 billion users online in 2015. There were 7.2 billion inhabitants in May 2015. In 2000, worldwide Internet subscribers were just 400 million.

2. Payment Gateway:

The payment transfer, which allows e-commerce, online shops, bricks, and clicks and traditional brick and mortar payments via credit card, is an ecommerce application service provider service. The main variables in internet transactions are payment routes that include credit cards, debit cards, online banking purchases, and transfers of electronic funds. There is a need for payment gates for sustainable future e-Commerce, and the environment shifts from cash into digital currency.

3. Analytics:

Analytics is the empirical way of transforming data into decision-making intelligence. Analytics assists organizations in collecting, arranging, reviewing and commenting on their clients. The vast rise in data volume has caused organizations to rely on research to know the customer's behavior. Retailers must have real-time access to knowledge to compute returns on internet investments and a channel blend. Basic analytics are available for e-commerce players; for customer insight, average order volume, basket size measuring, conversion ratios are required and a deeper analytical approach is needed.

4. Social Media:

To advertise their goods, businesses constantly use social media. Social media involves blogs and computer applications that allow the use of the computer or cell phone for connection and exchanging the information through the internet. Social networking is more critical in the creation of products and reminds clients of different deals. The input on the product or the service is also useful. It provides a brand-building tool for creating a trustworthy group of consumers, publications, word of mouth and so on.

5. Autonomous Vehicles:

Autonomous cars are belongs to the motor vehicles category that can work without direct intervention from a human operator using artificial intelligence, sensors and the global system of positioning. The age of the private car is quickly approaching. Autonomous consumers will have much time to browse the internet, read emails, purchase new items and view commercials nearby. Very vast digital media expertise is obtained for autonomous vehicles. These shopping and search trends can be traced to assist businesses in tailoring their marketing strategy to avoid this new industry. Big data are now much wider in nature but in the coming years will be so adapted and predictive that nothing can be manually modified again.

6. 3D Printing:

3D printer belongs to an electronic device category that can build a digital 3-dimensional model. The "additive manufacturing" technique is an overlay that resembles the successful laying of the colors of an ink-jet printer on a flat sheet of paper. 3D printing might one day blow out the method of output people use, as the Industrial Revolution in starting of 19th century shook agricultural life. 3D printing produces business of prototypes that the consumer is expected to print — or that the designer is connected to a third-party maker. The finished product is not marketed – the concept is sold and a printable license. In the corners of the internet, promising artists show their printing plans either at home or at work.

E-Commerce Business Types

There are mainly six basic types of electronic commerce as shown in the Figure 1:

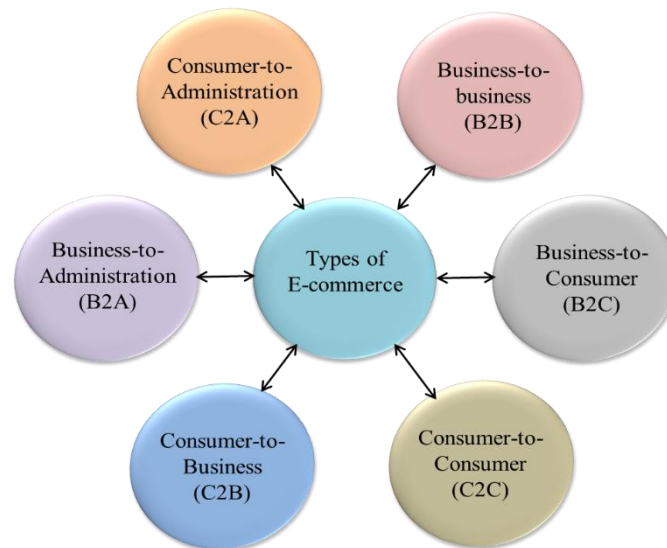


Fig.1: Schematic illustration of the Types of the E-commerce based on their Characteristics

1. Business-to-Business (B2B):

Electronic commerce B2B includes all electronic products or services transfers between firms. In general producers and traditional industrial wholesale companies use this approach for electronic trading.

2. Business-to-Consumer (B2C):

Company and final client electronic company partnerships E-commerce business to consumer. It is the e-commerce shopping section, where conventional retail business typically takes place. These partnership styles can be simpler, more complex and intermittent and can be discontinued. This business type has expanded considerably because of the advent of the Internet with a number of online shops and centers that offer customers' products of any kind such as computers, electronics, books, accessories, cars, food, financial materials and digital publications. In contrast to retail sales in conventional trade, the buyer typically has more knowledge about insightful content available and it is generally accepted that you can buy cheaper, without jeopardizing a similarly individual customer experience as well as promising easy processing and distribution.

3. Consumer-to-consumer (C2C):

Type C2C electronic e-commerce encompasses all trade in goods or services electronically between customers. Typically this exchange is done by a third party that offers an online transaction forum.

4. Consumer-to-business (C2B):

In C2B is reversed the usual context of exchange in goods. This method of e-commerce is widely used in crowdsourcing-based companies. For companies that aim precisely at some types of services or items, individuals also sell their services or products. These events include locations at which artists ask for several suggestions for a logo and only one is successfully selected and purchased. Another popular medium in this business segment is the markets which sell photos, photos, media and design elements free of royalty.

5. Business-to-administration (B2A):

This portion comprises all internet transactions between companies and the government. This covers a wide variety of diverse programs, notably in areas such as taxation, social care, healthcare, legal documentation and records, etc. These modes of services have been significantly extended in recent years by spending in e-government.

6. Consumer-to-administration (C2A):

The C2A model includes all electronic purchases between governments and individuals. Application highlights include:

- Education – disseminating information, distance learning, etc.
- Social Security – via information distribution, making payments, etc.
- Taxes – filing tax returns, payments, etc.
- Health – appointments, information about illnesses, payment of health services, etc

E-Commerce Potential In The Modern Market

World Wide Web (WWW) and the Internet have limited the number of trading places on the global economy. South Pacific nations have been closer to the rest of the world in terms of shorter trading cycles and lowered transaction costs by accelerating the process of purchasing and exporting the goods. South Pacific countries will theoretically have access to new markets. It poses real prospects for developing-country small businesses amid

all of the hysteria surrounding electronic commerce and the recent collapse of several dot-com firms [5]. They might give artisans who produce such things as tapa clothes the opportunity to directly sell the Internet and present pictures of their products using digital cameras. If a reduction in transaction costs produced by the internet is adequate to promote a wide-ranging shift within the global economy, though electronic business seems to be highly promising for small-scale producers, who face problems entering foreign markets.

The new trend in the industry of e-commerce has now extended to many directions relative to how it began. The e-commerce marketplace today is no longer merely an online forum for people to purchase or sell, but even more so, as e-commerce has increasingly changed, ranging from being extremely local, infusing artificial intelligence and providing even intangible products and services such as GST enforcement and short-term loans. With the introduction of technologies advancing at light speed, the potential view of the consumer is on the verge of full transition. However, it is sure to focus on consumer services enhanced across the Internet of Things (IoT), processing of data, logistics, artificial intelligence, personalization and hyper-local space for the next generation of e-commerce patterns. Take a look into some of the stuff in e-commerce in existing and emerging markets and build traction in the coming years [6].

E-Commerce Benefits

The biggest advantage from the consumer viewpoint is that it improves dramatically and saves lots of time and convenient to access from everywhere in the world. At any time, the customer is free to place the order [7]. For consumers, the key advantages of e-commerce are:

- Lower trade rates for stock exchange members.
- Enhanced flexibility - purchases can be carried out 24 hours a day without physical contact with the firm.
- Save time - Consumers will at any time purchase or sell any product online.
- The customer has better access by clicking on the button to search details on numerous pages, easily and continuously accessing information.
- Comfort in both purchases and transactions be made from the comfort that a buyer needs from a home or office.
- Moving to other companies-customers is still easy if the company's operation is unsatisfactory.
- A product was not available at the local or national market that provides consumer's access to a larger product than before could be available to customers.
- A consumer will make feedback on a product to see what others buy or see other clients' review comments before making a final purchase.

Increased sales and decreased running and sustaining costs through the Internet are the key advantage of e-commerce from the point of view of sellers. Include the following:

- It helps in revenue generation
- Reduces significantly costs related to operation as well as maintenance
- Reduces costs that is spend on purchase as well as procurement
- It helps to raise customer loyalty as well as retention
- Significantly reduction in budget spend transportation of the products
- Improve and develop relationship of customer and the supplier
- It helps in speeding the selling process
- Make internal as well as external communication better
- It promote the image of any company and brand

Challenges Associated with E-Commerce

Like other technologies, electronic commerce (E-commerce) also facing many challenges. These challenges mainly faced by the buyer as well as sellers who use internet as a medium for the business. Some of the these challenges are discussed as follows[8]:

- The electronic commerce market is not rising along with private and public enterprises. Private and public collaboration is needed to increase the electronic commerce industry. Joint efforts offer people the credibility they need to succeed on electronic commerce.
- There is no system protection, reliability, special requirements and some communication protocols. The customer loses his money, if the e-commerce website is hacked. For e-commerce Web sites, cyber security is the most common problem.
- Financial institutions and intermediates: So far, financial institutions and banks are reluctant to play an active role in supporting the e-commerce market in developed countries. But retailers need the participation of banks in expanding e-scope commerce and popularity and in mitigating theft and possible losses related to credit card fraud. However, banks and other financial service intermediaries are threatened outside their payment card strategy, in areas with no ordinary credit card creation alternative approaches to safe and efficient online purchases.

- There is a culture of purchasing goods in developed countries by bargaining deals with suppliers, which is challenging for e-commerce in developing nations due to the absence of facilities in the networks.
- One of the biggest challenges is the reduction of internet prices. The regulators are trying to be modest in bandwidth costs. However, the internet does not remain low due to high network delivery and servicing costs.
- The most critical factor is trust in electronic settlements. A standard paper on Baseline Laws and Rules may provide for the accuracy and legitimacy of e-commerce transactions. The trust in the developed world is based on modern legislation and impartiality in electronic transactions. Although the legislation and the judicial system which does not establish e-commerce-based transactions are not covered, whether real or perceived, they are adverse. In many developed nations, cash delivery is still today the most well-known process, with checks and credit cards not being readily accepted.
- For modern transaction procedures, new instruments and new service providers the legal description, consent and authorization are needed. For example, it is important to define an electronic signature and the status of a handwritten signature. The new legislative definitions and permits as the legal term of a bank and the notion of a domestic border can also be reviewed.

Besides the above challenges, the emerging economy of some developing countries also faced many other challenges are discussed below:

- Lacking in education
- Diverse Cultural and tradition
- Poor framework related to online marketing
- Less marketing and promotion
- Political issues
- High cost of services and products as compared to traditional market
- Less coverage of internet
- Communication is disorganized across the country
- Less number of trustable business as well as enterprise and
- Direct meeting with seller and buyer is missing

E-Commerce Trends in India

The purchasing of products and services through e-commerce enables shoppers to select when and where to buy and to study the commodity, the vendor and other choices available. The availability of online information has revolutionized the buying process. Almost anything that can be purchased in a shop, including perishable items such as food, can be purchased through e-commerce. And customers around the world have taken up these opportunities. In all spheres of industry, from services provides to the customer to the design of the new product, the influence of e-commerce already exists [9]. It offers new forms of company knowledge to meet and communicate with consumers, such as internet advertisement and commercialization, order fulfillment online and customer support online. At least a phase in the purchase life of the WWW is still being used for e-commerce. It may also minimize costs of order processing and communicate with a large number of vendors and trade partners, which generally bring substantial overheads to product and service costs. E-commerce provides tremendous opportunities for emerging countries such as India. It is still in its infancy in India, but even the most negative forecasts suggest a boom. In recent years, it has been noticed growth in the multiple of electronic commerce organizations. Instead of advertisement sales, big Indian websites have pushed into e-commerce.

There are number of services and products such from flowers, greeting cards, multiplex tickets to grocery shops, mobile devices, machines etc. are now available in several locations. Electronic commerce has expanded it's reached the stage to even sell the dung patties of cow like hotcakes. In 2016, the Indian market in electronic commerce is supposed to hit a \$38 billion level, a huge leap over the Industry's \$23 billion in sales in 2015, a study by Assocham said [10]. Increased internet and smartphone usage, increased adoption of online purchases and optimistic demographics have given businesses with a rare ability to contact their clients. On the other hand, as a healthy and secure companion to electronic commerce, mobile commerce (m-commerce) has evolved rapidly. Online shopping via smartphones is a game-changer. M-commerce is expected to add up to 70% of its overall sales.

CONCLUSION

In summary, in the years to come, the industry of electronic commerce will be a one of the leading sector in the field of electronic business. The revolution in electronic commerce has huge positive impact on the transaction industry by fast offering new markets and crossing edges. It greatly affected the conventional market system in the world and made it possible to improve the lives of people. Although it provides customers and sellers rewards, e-commerce poses conventional businesses with obstacles to a sustainable place. Developing countries

pose a range of challenges to the effective conduct of e-commerce when contrasting it with developing countries. When Internet prices are minimal, e-commerce flourishes quickly and many companies are typically drained. Convenience is one of the major advantages of electronic commerce for consumers and thus increasing customer loyalty. This is because consumers can put orders via internet access from anywhere they are. Company e-commerce offering a seamless operation and multiple payment choices should be essential to any customer and provide more functions accessible online. Other advantages include expanded products and enhanced regional coverage. However, e-commerce companies face many challenges in their expansion.

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