Review: Prospects and Challenges of E-Commerce Services in the Universe

Alyssa Khurana[1], Raghu Raja Mehra[2]

[1]Department of Information Technology, Invictus International School, Amritsar, India.
Email: *alyssakhurana[at]invictusschool.edu.in*

[2]Department of Information Technology, Invictus International School, Amritsar, India.
Email: *raghu[at]invictusschool.edu.in*

Abstract: ***E-commerce is a boom in modern business. The progress of innovation in information and communication has had many changes in all areas of the person's daily life. E- commerce means electronic commerce. Electronic commerce involves the purchase and sale of goods and services, or the transmission of funds or data, through an electronic network, mainly the Internet. The role of electronic commerce in business is that electronic commerce is synonymous with electronic commerce and involves the exchange of goods and services through electronic support. The number of electronic companies has grown considerably since the Internet was launched.***

Keywords: elements, facilitators, models, classification, benefits, Limitations, status, proxy services, security

1. Introduction

The term electronic commerce or e-commerce refers to any sort of business transaction that involves the transfer of information through the internet by definition it covers a variety of business activities which use internet as a platform for either information exchange or monetary transaction or both at times.

E-commerce means using the Internet and the web for business transactions and/or commercial transactions, which typically involve the exchange of value (e.g., money) across organizational or individual boundaries in return for products and services. E-commerce means using the Internet and the web for business transactions and/or commercial transactions, which typically involve the exchange of value (e.g., money) across organizational or individual boundaries in return for products and services. Here we focus on digitally enabled commercial transactions among organizations and individuals.

E-business applications turn into e-commerce precisely, when an exchange of value occurs.

Digitally enabled transactions include all transactions mediated by digital technology and platform; that is, transactions that occur over the Internet and the web.

Examples of E-Commerce -
Amazon, Flipkart, eBay, Fiverr, Upwork, Olx, Quikr

2. Meaning of E- Commerce

E*-commerce* has the capability to integrate all inter-company and intra-company functions.

or

The standard definition of **E-commerce** is a commercial transaction which is happened over the internet. Online stores like Amazon, Flipkart, Shopify, Myntra, Ebay, Quikr, Olx are **examples** of **E-commerce** websites. By 2020, global retail **e-commerce** can reach up to $27 Trillion.

3. Invention of E- Commerce

Figure 1: Michael Aldrich (22 Aug 1941 – 19 May 2014)

Michael Aldrich (22 August 1941-19 May 2014) was an English inventor, innovator and entrepreneur. In 1979 he invented online shopping to allow the processing of online transactions between consumers and companies, or between companies, a technique later known as electronic commerce. In 1980 he invented Teleputer, a multipurpose home entertainment and information center that was a fusion of PC, TV and telecommunication network technologies. In 1981 he developed the concept of interactive broadband local circuit cable television for consumer telecommunications in the mass market.

Flowchart:

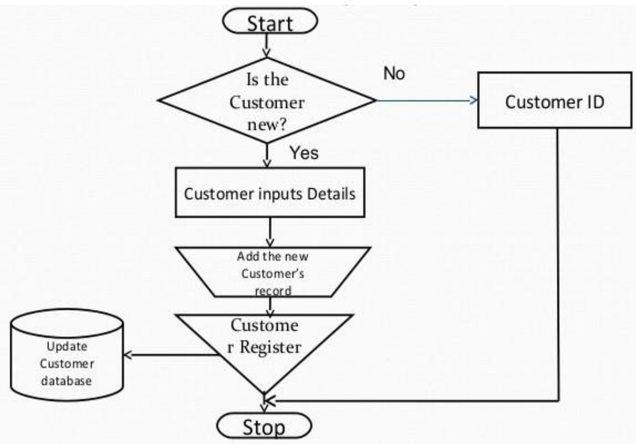

Figure 2: Flowchat of e-commerce

4. History of E-Commerce

Early 2000s: Introducing Broadband

In 2003, over 20% of Americans had broadband in their homes, which means that more people were starting to have permanent Internet access and greater access to online shopping. An article in the E-Commerce Times described the effects of broadband on e-commerce and, in 2003, online sales increased by 26% and only Amazon recorded a 28% increase in sales year after year.

However, the introduction of broadband in people's homes not only meant that more people bought online, but they also started doing more research before placing an order.

Key Brands in eCommerce

E-commerce giants Amazon and eBay have been industry leaders since childhood and are among the first known e-commerce brands.

Amazon has pioneered affiliate marketing, which means that it allows other websites to earn sales commissions to recommend Amazon products to their customers. Amazon now generates approximately 40% of its total revenue from the sales of affiliates and sellers who list and sell their products through the Amazon website.

The growth of Paypal (assisted by the acquisition of PayPal from eBay and its subsequent partnership with Mastercard) has also transformed the way consumers could make payments and buy online.

Paypal has simplified the shopping experience for its users. Instead of entering customer and card data every time a consumer wishes to make a purchase, all he has to do is pay with Paypal and log in with his account and with the ease of using Paypal on a mobile device, the platform has lending a hand to the upside in mobile commerce.

2010s: The Rise of Mobile Commerce

With the rise of smartphone owners over the years, mobile devices have caused a change in the way e-commerce now works.

Not only did online retailers have to consider the user experience for their mobile buyers, in April 2015, the increase in mobile users prompted Google to launch an update of the search algorithm called "Mobilegeddon". This update was designed to increase the visibility of responsive and mobile-optimized sites and penalize sites that do not satisfy their mobile users.

However, like users of mobile devices that affect search results and site visibility, the way users use mobile devices is also causing a change in buyer behavior. While online product research may have started in the early 2000s, smartphones have brought this to

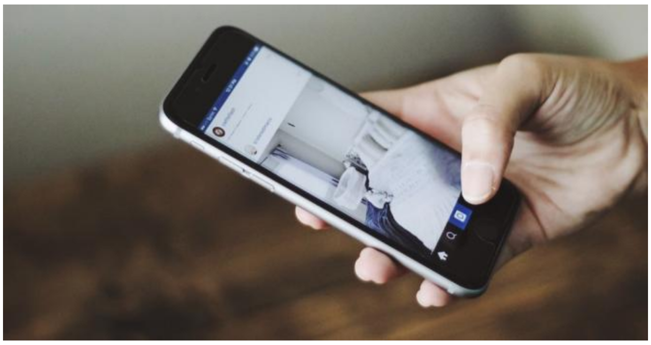

Figure 3: Mobile Commerce

2010s: The Effects of Social Media

Social networks have also changed the way consumers shop with their chosen e-commerce retailers. Social platforms have made brands much more accessible to their customers (consumers feel the same as brands on social networks, not below them) and the way they communicate with companies has changed.

Figure 4: Social media in e-commerce

Consumers are likely to interact with brands on social networks before they decide to shop with them, and the social presence of a brand can be very influential in how buyers perceive them. Consumers have higher expectations for brands in social networks and digital in general. If a retailer does not meet these expectations, especially the Internet and social networks, it is very easy for consumers to switch to a different brand.

Seven Elements of E-Commerce

Online shopping is conventional. Everyone does it and, instead of the recent credit card security problems in the store, it is often considered safer than going to a retail store or handing the credit card to a customer service representative at random over the phone.

Trust in online shopping is no longer a problem. The problem is to convince your visitors to buy on your website through a competitor. To capture your audience and make sales, your e-commerce website needs to be updated and implement several very important elements.

1) Easy to use
The homepage should be attractive and encouraged on its own and should be divided into sub-categories so that visitors can quickly find what they are looking for. The search bar should be easy to find and quickly list all applicable items that are available for sale once the user types his query.

2) Cart and payment process
Adding items to the cart should be simple. Color options or style preferences should be easy to see and select. Customers like to see what they have in their shopping cart as they continue shopping, so make sure you have a design and functionality that makes it easier.

3) Mobile compatibility
80% of all adults online have a smartphone. Mobile visits, in many cases now, outweigh the use of the desktop. Your e-commerce site must be designed and built for all devices, not just a personal computer or laptop.

4) Calls to action (CTA)
Make sure to guide your customers through your site with specific calls to action for what you want them to do. For example, if you have a sale, your CTA button could be "Click here to save 20%!" Always avoid making your client feel stupid because they don't. If they visit your website, they should be smart enough to buy from the best company out there.

5) Images and descriptions
When people are looking for a product to buy, they want to know all the details before making the purchase. Buying online can have its drawbacks because you cannot physically see or touch the objects they are looking at. For this reason, it is important to have professional-quality images of your products and, where appropriate, images from multiple angles, views and even contexts.

6) Customer service
Some kind of customer service should be available in case of problems or questions. There are several types of customer support, such as 800 numbers, email support and online chat. Decide which is the best option for your budget and the type of business. Keep in mind that you are always kind and respond in a timely manner to solve any problem and make your customers happy.

7) Security and privacy
Last but not least is security. Make sure you have an SSL certificate installed to encrypt data that arrives and arrives in the browser. Today every website, e-commerce or not, must have one. In addition, you have a transparent privacy policy that informs your customers about how your information is used on your site and by your company.

I. E-Commerce with 5-C Model

Another approach to defining and explaining, what is electronic commerce, derives from the so-called 5-C model. Define e-commerce for five business sectors whose names begin with the letter C:

Commerce
In electronic markets there is correspondence between customers and suppliers, a definition of the terms of the transaction and the facilitation of exchange transactions. With the overall move to web-enabled business systems with relatively uniform capabilities over legacy systems, a universal link to the supply chain has been created.

Cooperation
The Web is a vast nexus or network of relationships between companies and individuals.

More or less formal collaborations are created or emerge on the Web to come together People involved in knowledge work in a way that limits the limits of space, time, national borders and organizational belonging.

Communication
As an interactive medium, the Web has produced a multitude of multimedia products.

This universal medium has become a forum for self-expression (as in blogs) and self-presentation. The rapid growth of M-Commerce (see below) allows connectivity in context, with location sensitive products and advertising. In the communications domain, the Web also acts as a distribution channel for digital products.

Connection
Common software development platforms, many of which in the open source domain, enable a broad spectrum of companies to take advantage of the benefits of developed software, which is also compatible with that of your company e collaborating partners. The Internet, as a network of networks that are easy to join and outside of which it is located relatively easy to create virtual private networks, they are universal telecommunications network, now expands widely in the mobile domain.

Calculation
Internet infrastructure enables large-scale exchange of processing and storage resources, thus leading to the realization of the idea of decades of information technology for public services. Difference Between Traditional Commerce and Electronic Commerce

The days when commercial activities such as the exchange of goods and services for money, between the parties, are carried out only in the traditional way, that is, the customer must go to the market, look at the variety of products, choose the required items and buy by paying the specified amount. But with the advent of e-commerce, people can buy goods, pay bills or transfer money with a single click.

Many people still prefer traditional commerce to electronic commerce because of their dogma that the latter is not secure, however, this is just a myth. Both modes have their pros and cons, so we've simplified the difference between traditional and e-commerce.

Definition of traditional trade

Traditional or commercial commerce is part of the business, which covers all those activities that facilitate exchange. Two types of business activities are included, namely commercial and commercial assistants. The term trade refers to the purchase and sale of goods and services in cash or in kind and commercial assistants, implies all those activities such as banks, insurance, transportation, advertising, insurance, packaging, etc., which help to complete successfully Exchange between the parties.

Key differences between traditional and electronic commerce

The following points are noteworthy regarding the difference between traditional commerce and electronic commerce:

1) A part of the business, which focuses on the exchange of products and services, and includes all those activities that encourage exchange, in one way or another, is called traditional trade. Electronic commerce means making commercial transactions or exchanging information, electronically on the Internet.
2) In traditional commerce, transactions are processed manually, while, in the case of electronic commerce, there is automatic processing of transactions.
3) In traditional trade, the exchange of goods and services for money can only take place during working hours. On the other hand, in e-commerce, the purchase and sale of goods can take place at any time.
4) One of the main disadvantages of e-commerce is that customers cannot physically inspect the products before purchase, however, if customers do not appreciate the products after delivery, they can return them within the expected time. On the contrary, in traditional trade physical inspection of goods is possible.
5) In traditional commerce, the interaction between buyers and sellers is direct, that is, face to face. On the contrary, there is an indirect interaction with the customer, in the case of e-commerce, because it may be possible that the customer is miles away from where he places an order for the purchase of goods.
6) The scope of business in traditional commerce is limited to a particular area, ie the scope of business is limited to the nearby places where it operates. On the contrary, the company has a worldwide reach in the case of electronic commerce, thanks to its ease of access.
7) Since there is no fixed platform for the exchange of information in traditional trade, the company must rely entirely on intermediaries to obtain information. Unlike electronic commerce, where there is a universal platform for the exchange of information, or an electronic communication channel, which reduces people's dependence on obtaining information.
8) Traditional trade has to do with the supply side. In contrast, the e-commerce resource approach is the demand side.

In traditional commerce, the commercial relationship is vertical or linear, while in the case of electronic commerce there is a directness in the command that leads to a horizontal commercial relationship.

1. In traditional trade, due to standardization, there is massive / one-way marketing. However, in e-commerce there is a personalization that leads to one-to-one marketing.

2.

3. Payment for transactions can be made by cash, check or credit card. On the other hand, payment in e-commerce transactions can be made through online payment methods such as credit card, funds transfer, etc.

4.

5. The delivery of the goods is immediate in traditional commerce, but in the case of electronic commerce, the goods are delivered to the customer, after a certain period of time, generally within a week.

5. Limitations of the e-commerce

Although e-commerce offers many benefits to customers, businesses, society and the nation, there are still some areas of concern that need to be addressed. Below are some of the limitations or disadvantages of e-commerce.

Security

The biggest drawback of e-commerce is the issue of security. People are afraid to provide personal and financial information, although numerous improvements have been made to data encryption. Some websites don't have the ability to perform authentic transactions. Fear of providing credit card information and identity risk are limiting the growth of e-commerce.

Lack of privacy

Many websites do not have high encryption for secure online transactions or to protect online identity. Some websites illegally collect consumer statistics without their authorization. Lack of privacy discourages people from using the Internet for commercial transactions,

Tax issue

Sales tax is another big problem when the buyer and seller are in different places. Calculating sales tax poses problems when the buyer and seller are in different states. Another factor is that physical stores will lose business if web purchases are tax free.

Fear

People fear operating in a paperless and faceless electronic world. Some business organizations have no physical existence. People don't know who they are trading with. This aspect makes people opt for the purchase of physical stores.

Suitability of the product

People have to rely on electronic images to buy products. Sometimes when the products are delivered, the product may not correspond to the electronic images. Finally, it may not meet buyers' needs. The lack of "touch and feel" prevents people from shopping online.

Cultural obstacles.

Electronic commerce attracts customers from all over the world. People's habits and culture differ from one country to

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another. They also pose linguistic problems. Therefore, cultural differences create obstacles for both businesses and consumers.

High labor costs

A highly talented and technically competent workforce is required to develop and manage the organization's websites. Since the Internet offers many job opportunities, business organizations have to bear a lot of expense to retain a group of talented employees,

Legal issues

The cybernetic laws governing e-commerce transactions are not very clear and vary from country to country. These legal problems prevent people from entering into electronic contracts.

Technical limitations

Some protocols are not standardized worldwide. Some software used by the provider to display electronic images may not be common. It may not be possible to navigate through a particular page due to the lack of standardized software. Insufficient telecommunication bandwidth can also lead to technical problems.

Great technological cost

It is difficult to merge electronic commerce with traditional commerce. Technological infrastructure can be expensive and huge costs must be incurred to keep up with constantly evolving technology. It is necessary to allocate more funds for technological progress to remain competitive in the electronic world.

II. The TOP e-commerce companies

Amazon- Amazon needs no introduction. In 1994, Jeff Bezos founded the company (the richest man in the world) as a book market. From this modest start, Amazon has become the e-commerce company that generates the highest income and can be said to be the largest online conglomerate in the world.

Figure 5: Logo of amazon

In 2017, Amazon generated $ 177.9 billion in net sales, and that's not just for the sale of books. Amazon has now become a complete online store with a product range that includes electronic products, clothing, software, pet supplies and, of course, books.

Alibaba- When it comes to the major e-commerce companies, we simply can't forget Ali Baba. Founded in 1999, this e-commerce giant was born in China.

Figure 6: Logo of alibaba

Jack Ma started Alibaba to make it the largest online wholesale market. It serves not only consumers, but also retailers. Think about a product and Alibaba is likely to have multiple vendors offering that product in multiple versions.

EBay- Headquartered in San Jose, California, eBay is one of the world's leading e-commerce companies. Founded in 1995, the company was one of the first point bubble survivors that revolutionized online shopping. That's why your logo has a red-blue-green-yellow combination. The e-commerce platform offers a market for C2C and B2C transactions.

Figure 7: Logo of ebay

People can come together and publish their products for sale, so that others can see them. eBay has a range of product categories that cover almost everything.

Jingdong- Jingdong is essential in any list of major e-commerce companies. It operates outside of Beijing and, given its rapid growth, many of the major e-commerce stores (including Alibaba) consider it a worthy rival. It started in 1998 and started operating online in 2004, almost six years later.

Figure 8: Logo of jingdong

Although JD is not that big compared to Ali Baba's portfolio, in 2017 it recorded more revenue than Ali Baba ($ 15 billion more!). JD also has many more employees than Ali Baba. (JD has 137,000 and Ali Baba has about 65,000).

Zappos- Zappos is an extremely popular online shoe store for its customer service. They are one of the leading e-commerce companies with the best customer service in the world. The purpose of this company was "WOW" for its customers with exceptional unconditional customer service.

Figure 9: Logo of zappos

Tony Hsieh founded Zappos in 1999. After not having obtained external funds and investments, he ended up investing $ 500,000 from his own pockets to launch the online store. I had only one goal in mind, to develop an online shoe store with the best customer service.

Rakuten- Formerly known as Buy.com, the e-commerce market was renamed after Rakuten.com purchased it. It is one of the leading e-commerce companies and the largest e-commerce website in Japan. It is also known as "the Amazon of Japan"

Figure 10: Logo of rakuten

Let me give you a clue as to the size of this huge e-commerce website: 90% of Internet users in Japan have registered for an account on Rakuten. It houses 40,000 companies and has purchased numerous foreign assets and transformed them into branches in Rakuten (abroad).

The deposit Depot- Home Depot is the largest retail chain of household items and one of the leading e-commerce companies in the world today. With 2,200 physical stores in three countries, 40,000 employees and around $ 90 billion in annual revenue, Home Depot is a huge force in the retail sector.

Figure 11: Logo of home depot

Founded in Atlanta, GA, Home Depot has expanded its operations to Canada, where they have more than 200 stores in the 10 provinces. They also extended their operations to Mexico, where they have over 100 stores.

Flipkart- Flipkart is an online retail store in Singapore that operates in Bangalore, India. Sachin Bansal and Binny Bansal, graduates of the Indian Institute of Technology, founded it in 2007. After working for Amazon, the couple decided to launch their online store.

Figure 12: Logo of flipkart

Like Amazon, Flipkart initially focused on being a successful online bookstore. After making its mark on the Indian market as an online bookstore, Flipkart made a series of acquisitions to expand its operations.

Zalando- If you like fashion or aspire to be a stylist, then Zalando is the right place. Based in Berlin, Germany, Zalando, one of the world's leading e-commerce companies, focuses on selling fashion clothes worldwide with a large number of brands that make their presence felt there.

Figure 13: Logo of zalando

In addition to accessories and fashion trends, Zalando also offers gift certificates, coupons, coupons and online sales that help attract millions of users around the world.

Otto- Based in Europe, Otto is not only one of the world's leading e-commerce companies, but it is also classified as one of the largest e-commerce companies in the world. Not to mention one of the most successful.

Figure 14: Logo og otto

It is known for its innovation and the ability to constantly reinvent itself over time, keeping up with the latest and best technological trends in the world.

Otto, a fashion, sports, electronics and home equipment marketer, is one of the most visited platforms in the world to buy almost anything you want, through an innovative and easy-to-use interface presented on its website.

Electronic Commercial Security Strategies

Figure 15: Security

INSTALL HTTPS Protocols

These protocols have increased their popularity in recent years, compared to traditional HTTP, more vulnerable than HTTPS. The HTTPS protocol was normally used in some parts of the website intended for payments, due to the need to protect customer and company information. Currently, however, the use of these protocols has become widespread.

Implement CVV and AVS Verification Systems

Payment processing is one of the most delicate aspects of e-commerce cyber security. Companies need to be very careful, especially when it comes to credit or debit cards. Requesting the CVV (card verification value) is a highly recommended practice. And it is for two reasons

Increase security in online payments. Requesting CVV codes makes it much more difficult to process a fraudulent transaction. Cybercriminals may have stolen a credit card number, but not a physical card (although the latter scenario is possible, it is a minority).

Make Periodic Security Copies

This is another of the most effective e-commerce security strategies. And it certainly doesn't require hiring professionals.

Just install UpdraftPlus, BackupBuddy, BoldGrid Backup, BackWPup and other add-ons for security and make regular copies of e-commerce databases.

Use of Multi-Layer or Multi-Layer Safety

Layered security means using several measures, such as installing a firewall, which provides an initial defense against cyber threats.

In addition, the use of a CDN (content delivery network) allows you to add an additional level of security, as this system diversifies copies of data in various geographical points.

Avoid to Store Information on Credit / Debit Cards

In addition to e-commerce security and encryption techniques and tools, the best online stores use common sense to protect their customers.

The best way to avoid losing credit and debit card information is to not store it. We know that credit card numbers and customer names are essential to facilitate quick payment. However, it is not necessary to store them on online servers.

6. Conclusion

In general, today's businesses must always strive to create the next best thing that consumers will want because consumers continue to desire their products, services etc. to continuously be better, faster, and cheaper. In this world of new technology, businesses need to accommodate to the new types of consumer needs and trends because it will prove to be vital to their business' success and survival. E-commerce is continuously progressing and is becoming more and more important to businesses as technology continues to advance and is something that should be taken advantage of and implemented.

E-Commerce is not just about conducting business transactions via the Internet. Its impact will be far-reaching, and more prominent then we know currently. This is because the revolution in information technology is happening simultaneously with other developments, especially the globalization of the business. The new age og global e-commerce is creating entirely new economy and that will tremendously change our lives, will reshape the competition in various industries, and alter the economy globally. As companies are gaining high profits, more and more other companies are developing their websites to increase their profits. Since more businesses are being held online resulting in high economy development and emergence of a more innovative and advanced technology.

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