



E-commerce: A complete guide

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Abstract:

In recent years, e-commerce has increasingly become a necessary component of business strategy as well as a significant economic shock. The purpose of this study is to look into e-banking and come up with strategies for incorporating e-commerce into traditional retail banking services. In the last century, new electronic systems, particularly the "Internet business development," have fundamentally altered how cultural exchanges, economics, and social communities are conducted. The Internet has altered the competitive landscape in the retail banking sector. Theoretical analysis of electronic money, electronic banking, and its history, characteristics, and ways to expand its e-banking culture is examined in this paper.

Keywords: E-commerce, Advantages, Limitations, Security Issues

Introduction:

1.1. E-commerce definition

The internet has transformed every aspect of our lives. When using an internet-enabled digital device such as a desktop, laptop, tablet, or smartphone, the world appears to be a much smaller place. This easy access to a wide range of information, services, and products, all of which are now just a click away, has had a significant impact on how businesses are conducted via the Internet. Businesses, also known as 'commerce,' is a cost-effective movement that involves a buyer and a seller buying and selling goods (Chan et al. 2007).

In a traditional format, a buyer would enter a store, inspect the merchandise, choose a product, and pay for it. To complete this business transaction, the seller would complete several business transactions on his or her end, such as issuing an invoice, delivering the product, and so on. Other business functions that the seller would perform include inventory management, financial records, logistics, and so on. With the advent and widespread use of the Internet, all of these business functions, carried out by both the buyer and the seller, can now be carried out electronically via the Internet by creating a website or a web portal. Buyers and sellers meet on this specially designed website or web portal, and their transactions take place outside of the firm's physical boundaries (Jaiswal 2003; Chen and Yang 2006).

Electronic commerce, sometimes known as e-commerce, is the term used to describe an economic activity that takes place through the internet. E-commerce encompasses a wide range of business activities, including retail shopping, banking, investment, and rental properties. Even individual service businesses, such as hair and nail salons, can benefit from

e-commerce by offering a website for the sale of associated health and beauty products that are generally only available to their local consumers. 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 are all examples of electronic commerce (Korper and Ellis 2000).

Modern electronic commerce usually involves the usage of the World Wide Web at some point throughout the transaction's life cycle, though it can also include e-mail, mobile devices, social media, and telephones. E-commerce varies from e-business in that e-business does not involve a commercial transaction or an exchange of value beyond organisational or individual borders. The electronic purchase and sale of goods and services by businesses and customers without the use of paper documentation. Mobile e-commerce, or m-commerce, is the word used to describe the growing trend of initiating or completing online electronic commerce transactions using networks that interface with wireless devices such as laptops, handheld computers, or mobile phones.

Mobile commerce (m-commerce) refers to any type of electronic transaction carried out using a mobile phone. Online shopping, also known as online retailing, is a type of electronic commerce that allows customers to buy goods or services directly from a seller over the Internet via a web browser. E-shop, e-store, Internet shop, webshop, web-store, online store, and virtual store are some of the other names for it. With the rise of identity theft and impersonation, privacy has become a major concern for consumers, and any concern for consumers must be treated as a major concern for e-commerce providers.

1.2. Web portal

A web portal, also known simply as a 'portal,' is an integrated collection of web pages on a specific theme that acts as a one-stop-shop for that theme. Unlike a website, a portal provides not only the desired information in one location, but also additional features such as an internal search engine, personalized logins and emails for regular visitors, online forums, and more. The visitor can access all of these features in a user-friendly manner. In some ways, a web portal can be thought of as a collection of interconnected websites designed to give users a more consistent experience on the theme for which it was created. An 'e-commerce web-portal' is a web-portal that is specifically designed to host product and service information. Sellers can only provide a wide range of products, price options, and related services to their buyers through a well-designed web-portal when using it as an online shopping arena. As a result, an e-commerce web portal offers a variety of online activities related to the sale of both services and products. All of these activities are carried out and managed with the help of specially designed 'ecommerce software,' which serves as the 'driving force' behind them.

1.3. Softwares

E-commerce software usually ensures that the entire commercial cycle of buying and selling goods and services over the Internet runs smoothly for both the buyer and the seller. A typical e-commerce software, for example, includes a dedicated engine for searching different products, vendors, and/or price preferences for a buyer. It also assists a buyer in selecting and selecting the items to be purchased. It allows for safe monetary transactions to complete the transaction. While assisting a buyer with these steps, an e-commerce software also assists the buyer in collecting multiple orders in a dedicated basket, where additions, deletions, and modifications are permitted at any time. This software also keeps track of each buyer's address and order history, as well as offering multi-channel product booking and delivery. In

general, the role of e-commerce software is to not only assist in the smooth operation of the business, but also to provide various facilities and utilities to both the buyer and seller that will evoke trust in them to continue their transactions on these portals (Bajaj and Debjani Nag 2005).

1.4. APIs

Application Programming Interfaces (APIs) are used to connect all e-commerce-related technologies and features (APIs). APIs are ready-to-use computing interfaces/software intermediaries that allow data to flow from one feature to the next, from one software to the next, and from one platform to the next. For example, an e-commerce seller can easily integrate the portal with a shipping portal and 'import' data from shipments and orders stored on that shipping portal (called Shipping APIs), and so on, by using a pre-designed e-commerce API. Similarly, there is a slew of e-commerce APIs for retrieving product information (Product Information APIs), inventory management (Inventory APIs), and creating buyer baskets (Order APIs). Authentication APIs, Catalog APIs, Marketing APIs, Payment APIs, and so on are all available. As a result, all data exchanges are handled smoothly by ready-to-use APIs without the need for programming (Whiteley 2001).

1.5. M-commerce

All software features available on an e-commerce web-portal can be accessed via mobile-friendly application interfaces, also known as apps (a common abbreviation for Applications). Aside from a web portal or a mobile phone, a variety of other channels, such as social media accounts and even physical locations, are set up to give buyers easy access. All of the channels that are already available on the online shopping account can be selected or specified by the buyers. E-mails and social media are commonly used as digital marketing channels in multichannel commerce. Similarly, a seller could conduct business using either a web portal or a combination of web portals and physical storefronts. The goal of multichannel commerce is to interact with customers in multiple ways, which has resulted in a variety of e-commerce models.

1.6. Emerging technologies

These online accounts are not only routinely programmed, but they are also extensively personalised and contextualised for each individual, thanks to advanced programming features provided by Artificial Intelligence (AI) / Machine Learning (ML) techniques. With time, e-commerce web portals have begun to incorporate other emerging technologies such as augmented reality (AR), virtual reality (VR), blockchain, and others. The goal of incorporating emerging technologies into an e-commerce web portal is to provide a better user experience (UX) and a more pleasant user interface for its customers (UI). E-commerce refers to an Internet-based business ecosystem that includes an e-commerce web-portal, e-commerce software, e-commerce 'app,' and e-commerce APIs that allow different buyers and sellers to conduct business transactions comfortably and securely (Manzoor 2010).

1.7. Evolution of E-commerce

The World Wide Web was designed in 1991, and it established the ease of use of the Internet. Pizza Hut was the first company to offer its pizza online on its own website in 1994, and eBay was discovered almost a year later. Initially, it was only thought of as a way to submit supporting documents online when completing a transaction. The rise of e-commerce, formerly known as "webcommerce," became more prominent from 1995 onwards. This was

largely due to the widespread use and spread of the Internet. Several retail websites were planned and launched at this time for the sale/purchase of goods and services over the internet (Manzoor 2010).

But it wasn't just a matter of bouncing back in the next five years of consistent success. The dot.com bubble burst in the late 1990s (in 1999). By 2005, the increase in online purchases on certain days had become so significant that the term "Cyber Mondays" had been coined. Over the last few years, the growth of social media has also ensured that the relationship between sellers and buyers has become more engaging and extensive.

The Present Situation: In 2021, the Internet and digital devices such as smartphones and tablets have broadened the scope of e-commerce to include international buyers and sellers. The majority of businesses now have an online presence, which increases price competition. Alternative business models for conducting transactions have emerged as a result of the creation of new distribution channels. Business firms' structure and nature have also changed. Online advertising and promotions have also become more direct and targeted at the buyer.

As a result of all of these changes, prevalent trade practices, trade techniques, and standards have undergone significant changes, all of which have a direct impact on the marketplace. Indeed, e-commerce opens up the possibility of better businesses, providing not only the ability to replace existing business strategies but also the viability of complementary business models (Manzoor 2010; Qin 2010).

1.8. Types of E-commerce

In today's e-commerce world, there are many different types of electronic transaction models (Fig 1.1).

- B2B (Business-to-Business): This type of E-Commerce is defined as that which occurs between businesses. The companies involved in a Business-to-Business E-Commerce system come together to conduct business with one another.
- B2C (Business-to-Consumer): This E-Commerce model is defined as the process by which a company or business sells its goods, services, and products directly to customers over the internet.
- C2A (Consumer-to-Administration): This model refers to the ECommerce process that consumers use when dealing with government agencies directly.
- C2B (Consumer-to-Business): It is a type of commerce in which a consumer provides goods, services, and products to a company or organisation.
- C2C (Consumer-to-Consumer): This type of E-Commerce is defined as a model in which consumers use web technologies and the internet to sell goods, services, and products to other consumers.
- D2C (Direct-to-Consumer) e-commerce: The D2C e-commerce model "cuts out" the middleman. D2C e-commerce refers to when a manufacturer or producer sells directly to consumers through their website.
- P2P (Peer-to-Peer): This E-governance model refers to a distributed platform that allows different individuals to transact with each other without the use of a third-party intermediary via a P2P service.



E-commerce Security is a part of the Information Security framework and is specifically applied to the components that affect e-commerce including Computer Security, Data security and other wider realms of the Information Security framework. E-commerce security has its own particular nuances and is one of the highest visible security components that affect the end-user through their daily payment interaction with business.

The ability of e-Commerce to make businesses more profitable due to its ability to sell goods and services online has no doubts in the minds of its stakeholders. At the same time, there are numerous factors to consider (Whiteley 2001; Bajaj and Debjani Nag 2005).

1.9. Advantages of E-commerce

The various advantages of E-Commerce are discussed below:

1. A faster buying process to save time: One of the issues that traditional stores face is a consumer's delay in purchasing due to the difficulty of accessing a physical store that may or may not be open. E-commerce helps consumers overcome this barrier by allowing them to obtain a specific product at their own pace and with ease.

2. Personalized store based on customer preferences: One of the major advantages of doing business online is the improved shopping experience. Because each user is presented with a unique first page based on their location and advanced search for making a purchase, The personalised online shopping experience takes into account the customer's previous purchases. This allows customers to receive special benefits and discounts as a result of their loyalty, order history, and other factors, thus exceeding customer expectations.

3. Reduce recurring cost while hiring virtual support resources: One of the key factors that aid in reducing cost when it comes to e-commerce is the outsourcing of tasks to even different countries or employees for use to many other e-commerce businesses. This makes the presence of a company possible in multiple locations possible at a fraction of the cost of physical presence.

4. Availability of reviews: The review system enables customers to make decisions and pass judgement on a variety of factors. Positive feedback or a higher rating for a business not only adds value but also builds consumer trust in both the product and the company. This not only portrays the company as transparent, but it also allows customers to express their opinions about their product choices.

5. Consumers have access to detailed information: One of the key e-commerce advantages is the consumer's ability to access detailed information. Consumers are always looking for detailed information about the products they're considering because it helps them make an informed decision. The detailed description of the product aids the consumer in making an informed decision based on their needs.

6. Flexibility with 24/7 service: E-commerce outperforms traditional stores and retail spaces in terms of accessibility and affordability, as it provides service to customers 24 hours a day, seven days a week. It is not only capable of providing a shopping option 24 hours a day, but E-Commerce also assists consumers with chat support, product recommendations, and product identification at any time and location (Chen and Yang 2006; Reynolds 2004).

1.10. Disadvantages of E-commerce

1. Lack of personal touch: The ability to personally view and touch any product is one of the most important factors in determining consumer satisfaction. It is a critical factor in customer satisfaction because even the most detailed, expressed, and explained products can fail to persuade and attract customers.

2. Uncertainty about the quality: It is difficult for the consumer to determine the quality of products purchased online. It is also well known that there has been fraud in the form of fake reviews to artificially boost sales of a low-quality or faulty product.

3. Late Delivery: One of the guarantees of ECommerce businesses is that the product will arrive on time. Because there are a variety of issues that can arise when it comes to the delivery of a purchased item, businesses avoid providing exact delivery dates and instead provide delivery windows. This frequently leads to the customer waiting for the product for longer than the stated time frame.

4. Purchase of some products is difficult: Some valuable items, such as gold, and customised items, such as made-to-order furniture (due to measurement issues), are difficult to buy online. When it comes to these products, trust is crucial, and the inability to physically verify them could be a deterrent to purchasing them online.

5. Issues with site crashes: There is still some uncertainty about server functionality and the availability of high-quality internet service 24 hours a day, 7 days a week. This can obstruct sales and lead to customer churn because customers may be forced to wait an unspecified amount of time to complete transactions.

6. Cybercrime and Data Privacy Issues: Last but not least, e-commerce is vulnerable to cyber security threats and data breaches that are common in the digital world. E-commerce web portals store users' data, including financial and other personal details of buyers and sellers, more than any other online information. As a result, protecting this data from a variety of security threats such as malware, hacking, ransomware, and the misuse of personal sensitive information/preferences for targeted marketing/campaigning, among others, is a constant challenge (Xu 2011; MacGregor and Vrazalic 2007).

Conclusion

E-commerce is commonly thought to refer to the buying and selling of goods over the internet, but it can also refer to any transaction that is carried out entirely through electronic means. E-commerce and M-commerce are becoming increasingly important in online retail marketing, and the number of people using this technology is growing all over the world. Mobile commerce refers to any type of electronic transaction carried out using a mobile phone. The protection of e-commerce assets from unauthorised access, use, alteration, or destruction is referred to as e-commerce security.

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