

Factors Affecting Electronic Commerce in Türkiye (Determining Factors)

Arrived Date

29.12.2023

Accepted Date

20.01.2024

Published Date

31.01.2024


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Abstract


The rapid development of technological developments, especially computer and internet technologies, has contributed greatly to the formation of the information society. As a result of these changes, it has enabled individuals and therefore businesses to trade by using the internet effectively, and electronic commerce (E-Commerce), a new concept in world economies, has emerged. With the widespread use of the Internet, a trade system that creates distribution channels with the network system between cities, districts, towns and businesses and removes borders has emerged. In the globalized economy as a result of technological developments, domestic and foreign trade activities are of great importance for both consumers and companies. Companies and consumers need to adapt to these developments in the Internet and technology. In today's business environment, it is an undeniable fact that e-commerce companies that want to be successful in domestic and foreign trade should utilize the internet in the most effective way in their activities.


INTRODUCTION

The concept of trade, which has existed since the existence of humanity, is one of the most indispensable elements of human life. From prehistoric times to the present day, people have used the trading system to meet all their needs. Trade, which was initially in the form of barter (barter), has taken its current form by going through various stages. With the changes in social and economic structures over time, trade through gathering and hunting has transformed from an industrial society to an information society. Today, with the development of technology, different forms of trade such as e-commerce have emerged in social and economic life. Since the internet network began to spread around the world, the e-commerce system network has developed. This system has started to be widely used by small, medium and large enterprises in both the public and private sectors. The opportunities offered by this new system to consumers and businesses increase the reliability and continuity of e-commerce day by day.

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Technological developments, especially the extremely rapid development of computer and internet technology, have led to the emergence of a new structure known as the information society. As a result of these rapid changes, individuals and companies can now actively use the internet to trade, and a system known as electronic commerce (e-commerce) is emerging in the global economic system. This technology has changed the methods used in trade, eliminating barriers between producers, buyers and sellers. With this method, institutions that once served as intermediaries in trade began to lose their characteristics. In e-commerce, buyers and sellers can negotiate in a certain environment without intermediaries and carry out commercial activities if they agree. As a result, the scale of e-commerce has reached billions of dollars and billions of liras in our country. Since the mid-1990s, the value of information has increased and a new type of economic trade has emerged. Radical developments in the field of science and technology in the 20th century have led to multidimensional changes and transformations in economic, political and social events. The new type of economy, which is completely different from the traditional economy, has brought its own rules to the market it has entered. The internet, which is one of the products of information and communication technology, has become the preferred commercial tool. This new form has been called e-commerce. E-commerce has been adopted and developed rapidly by both the production and consumption sectors without any adaptation problems and is considered one of the most important components of the new economy today. Developments in the technology sector are one of the most important components of the concept of globalization. Developments in the information and technology sector have helped to spread the regular use of computers and, accordingly, the internet. Advancing technology and the widespread use of the internet encourage consumers to use the internet for shopping and allow more products to be sold.

E-commerce has entered the world of commerce as a new method. Thus, a rapid change in old-fashioned trade and forms of competition was observed. Although this change is first seen in technologically and economically developed countries, it is also observed in our companies in the 21st century. Globalization and the rapid development in information technologies have also positively affected the level of internet usage, and the use of the internet in the field of business has increased as well as the socialization dimension. This new form of economy, which allows consumers to research and buy the products they want, when and where they want, has also brought new concepts to marketers.

One of the most important developments in recent years has been the shift from the industrial society to the information society. The term informatics, which we often hear today, is a derived term that combines information and communication. Today, the internet lies at the heart of the importance of the concept of globalization. Thanks to the Internet, borders have disappeared. The rapid development of the sector due to informatics has brought the use of this sector for commercial purposes to the agenda, thus the concept of e-commerce (electronic commerce, e-commerce, e-business) has been formed.

Electronic commerce activities, which have become an important application of information and communication today, are one of the issues that have been on the agenda of researchers since the 1960s. Although the trade, which started to take place with theoretical studies in the 1960s and modern tools of the period such as telephones in the 1970s, is not well known as electronic commerce compared to today's technology, the private use of the internet was started in 1994 and the world's first e-commerce website was opened in 1995. The demand for websites from businesses increased significantly, and by 1996, most businesses recognized the need to join online networks. This change has come to be commonly referred to as e-commerce. This is also reflected in the results of the research: The widespread use of e-commerce, which started in the early 1990s, dates back to 1997.

The 21st century, which can be described as the age of information, communication and technology, is shown as the last point where human life becomes easier. Years ago, the efforts and efforts of human beings to access all these tools were much more laborious, long and costly. As technology has developed and continues to evolve, these efforts have reached a minimum.

Trade, which is the first source of livelihood of humanity, is also affected by the barriers to access to all these opportunities. In the past, libraries and books were needed to obtain information, telephones were needed to communicate, and before that, letters and postcards were needed. Since the beginning of trade, the Internet has even replaced the Silk Road, the Spice Road, trade fairs, industrial zones and trade centers, which have become among the most preferred settlements of mankind and have become quite famous. The Silk Road is one of the most important inventions of the globalizing world and one of the milestones that changed the course of trade.

The Industrial Revolution has been one of the most important changes in human history, transforming society and bringing new modes of production and lifestyles. The rapid development of communication technology and the internet in the world has led to the spread of a new economic order. The high efficiency and interaction offered by the Internet and the disappearance of the borders brought by globalization lead companies to do business in a completely new environment. This new form of trade in the globalizing world economy is known as e-commerce.

E-commerce is a concept of commerce that has emerged with the spread of the internet since the 1990s. It refers to the production, promotion, sale, insurance, distribution and reconciliation of goods and services through computer networks. There are three stages of e-commerce. These are the stages of advertising and market research, ordering and payment, as well as the delivery of goods to customers. In this context, online shopping makes a positive contribution in terms of time and cost thanks to the ease of communication it offers to users.

Technological developments in the 21st century, especially the development of the internet and technological tools, have contributed to the formation of the information society. These rapid developments, along with the widespread use of the internet, have helped companies shift their business infrastructure to the internet. In this context, e-commerce is a necessary form of trade for the development of Türkiye and all developing countries. In this study, the process of trade from the barter method to electronic commerce, the definition, scope and importance of electronic commerce, the concepts related to electronic commerce, legal regulations, factors affecting electronic commerce will be discussed in detail. The study aims to emphasize the phases of the concept of trade from traditional methods to electronic commerce and the factors affecting this new type of trade depending on the technological processes that developed with the emergence of the internet.

Literature Review

In recent years, e-commerce in Türkiye has developed by creating macroeconomic effects. The ease of use of the internet in our country has attracted the attention of the business world and many products, including direct sales over the internet, have been implemented in a short time. In recent years, commercial sales have increased in parallel with the spread of the internet in the world and in our country. One of the most important effects of this increase is the interest of young people in the internet and e-commerce. Therefore, the number of internet users is considered as the primary factor affecting e-commerce.

Gross domestic product (GDP) is the total value of goods and services ultimately produced within a country's borders during a specified time period. Every increase in GDP increases the income level and consumption possibilities of an economic unit. Therefore, it can be said that the increase in each unit of GDP affects the volume of e-commerce. As a result of his research by Chunling (2015); It concluded that GDP affects e-commerce volume and economic growth.

Today, thanks to technological developments and the development and use of internet-based tools, businesses have started to rapidly switch to e-commerce in their commercial activities in the domestic and foreign markets. İzgi and Şahin (2013) determined the electronic retail sector and the profile of consumers shopping online in Türkiye and explained the reasons for the preference of the internet while determining this structure.

Conceptual Definition of Electronic Commerce

Electronic commerce activities, which have become an important application of the field of information and communication today, are one of the topics that have been on the agenda of researchers since the 1960s. Trade, which started to take place in the 1960s with theoretical studies and in the 1970s with modern tools of the period such as telephones, is not well known as electronic commerce compared to today's technology. In 1994, the private use of the internet was launched, and in 1995, the world's first e-commerce site was launched. The demand for business websites grew so much that by 1996 it was a matter of course for most businesses to join an online network. This new type of electronic commerce, which emerged with this change, began to be referred to as electronic commerce.

In today's age of Digital Information, people have started to realize things in their lives that they could not even imagine before. As a technological achievement, people today prefer to communicate with each other via telephone, fax, television and the internet instead of face-to-face communication. In this last century, in which the fastest changes in human history have been experienced, many concepts that have an important place in human life have also changed shape. One of these concepts brought about by the information age is commerce with its changing face or E-Commerce, that is, electronic commerce.

E-commerce goes beyond shopping. Commercial activity is more often carried out on commercial sites, i.e. in virtual stores, in the form of promotions, advertisements and marketing through search engines, social networking sites and e-mails of service providers. In addition, the vast majority of commercial activities take place in the internet sector, which forms the infrastructure of banking, insurance, logistics and e-commerce activities.

Electronic commerce can simply be defined as the process of commerce in which text, audio, and video data are made available to individuals and businesses electronically through the digitization of text, audio, and video data using open or closed network systems that take advantage of telecommunication facilities.

Basic Terms Related to Electronic Commerce

Electronic Job (E-job)

Computerized data evaluation is called informationalization. Electronic business is based on the idea that electronic business will emerge in parallel with the development of information technologies and create opportunities and capabilities for online business. The development of information and communication technologies will continue to develop the concept of e-business.

Electronic business is simply e-business, the online presence of the business. At the same time, the work done over the internet and electronic data exchange are also called e-jobs. E-commerce is an important component and subset of e-business. E-business goes beyond the buying and selling of goods. It creates a virtual environment to provide services to customers, communicate with employees, and communicate with customers and business partners. If there is a conversation with a company or a service issue, all basic operations are carried out in electronic form. There are two types of e-businesses. These;

A Company Providing Services in a Single Area (Pure Play): A business with only an electronic presence. Example: Hotels.com

Multi-Domain Service Company (Brick and Click): The business model in which the business is located both online and electronically, that is, in physical mode.

Electronics Document

E-document refers to any document that is created, sent, received, recorded and stored in a digital environment. An e-document is a document that is created electronically and has been confirmed to

be reliable and secure. All public (official) and private (local) documents that are issued, transmitted and accepted with the electronic signature of the user, in other words, the creation, notification and notification processes are completed, are considered electronic documents. While it is technically easier to archive documents produced on a limited basis in small businesses, it requires a significant technical capacity for the classification and storage of documents issued by public institutions. Therefore, document-producing organizations have to establish and develop the necessary systems. The e-government application implemented in Türkiye can be shown as an example of the above-mentioned model.

Electronic signature

Electronic signature as included in the Electronic Signature Law No. 5070; It defines 'electronic data that is attached to another electronic data or has a logical connection with electronic data and is used for authentication purposes'. Electronic signatures have been developed as an alternative to manual wet signatures and are signatures created using different methods such as passwords, fingerprints, eye scans and vein stamps, which have the same legal effect as wet signatures. These types of signatures, depending on the method used, are encrypted with a mathematical algorithm at the head of the person, made by a legally determined and authorized authority, and used only by that authority.

Digital Certificate

Electronic certificates are considered the online equivalent of documents that are often used in the natural course of life, allowing for transactions that are as reliable as encrypted transactions. Examples in Türkiye include identity cards and driver's licenses. Electronic certificates are created by securely transferring an identity to electronic media. These transactions are provided by certain organizations around the world. GlobalSign and VeriSign are examples.

Certificate Service Provider

Transactions can also take place on networks that are not classified as secure. In fact, when the general situation is evaluated, it is seen that much more transactions take place in unsecured networks compared to secure networks. When a digitally signed document is transmitted over an insecure network, the signature must be verified. This means that certificates must be sanctioned with their attestation capabilities to ensure the security of these transactions. Certificate service providers established to provide trust services transfer and certify certificates. For this purpose, companies use so-called root certificates to verify the transactions of the parties.

Cryptography

Encryption is mainly used in transactions that take place over the internet and involve security. When the frequency of such transactions in the electronic environment is examined, it is seen that shopping takes place. In e-commerce transactions made over the Internet, the encryption process comes to the fore in order to ensure that information is shared while the transaction is made. Encryption processes guarantee the authenticity of work and transactions. Thanks to encrypted data, the exchange process between the buyer and seller becomes secure and third parties are prevented from obtaining information. From this point of view, encryption can be described as a security algorithm.

IP Address

A link address is used when accessing the Internet using a connection tool in an online environment. Internet domain names are handled by an addressing system called IP (Internet Protocol). For this reason, each connecting device has a separate connection address. Devices are distinguished using these addresses; IP addresses are given hierarchically in a system called the 'Internet Corporation for Assigned Names and Numbers' (ICANN).

Key Elements and Tools of Electronic Commerce

Common e-commerce tools are a part of our daily lives and are constantly used. Therefore, this situation shows that e-commerce is not as new as it seems. The first e-commerce application study

was seen in the USA in 1995. More than one institution and organization has defined e-commerce, but the basic elements that e-commerce should cover are similar in all e-commerce definitions. These common elements are the existence of a product or service, the existence of two parties buying or selling it, and the payment to the seller when the purchase occurs. Electronic commerce can take place using open or closed networks. In this context, the most basic tools of e-commerce are the internet, EDI, electronic payments and remittance systems. In addition to these basic e-commerce tools, telephone, fax, and television are also used for e-commerce. E-commerce is widely used today, but its emergence is not that old. Since 1995, when the first e-commerce transaction took place, e-commerce has become extremely detailed, comprehensive, up-to-date and integrated into our daily lives. The most important issues that enable the spread of e-commerce are the development of the telecommunication and information technologies sector, the widespread use of equipment in this field and its accessibility by everyone. The main tools among these are: telephone, fax, television, internet, electronic mail (e-mail), file transport protocol (ftp), electronic payment and remittance processing systems. Table 1 shows the traditionally used E-Commerce tools in relation to Commerce.

Table 1. The traditionally used E-Commerce tools in relation to Commerce.

Traditional Trade Tools	E-Commerce Tools
Television	www
Radio	FTP
Telephone	E-Mail
Fax	Voice Mail
Electronic Payment and Money Systems; ATM Credit card Pos Systems	Conference Systems; Teleconference Data Conferencing Video Conferencing
Intranet Closed Computer Networks; Electronic Funds Transfer (EFT) Electronic Data Interchange (EDI)	GSM: Mobile Communication Technologies SMS: Short Message Service WAP: Wireless Application Program

Source: Hasiloğlu, 2003

Electronic Commerce (E-Commerce) Payment Instruments

As more and more companies try to do business through e-commerce and sell their goods and services online, the issue of payments is becoming a focus, raising questions such as: How do we solve the problem of electronic payments worldwide? How are we going to deal with the millions of payments made through online networks every day? The answer is modern electronic payment methods. Electronic payments are defined as the use of secure electronic payment instruments and the circulation of funds by parties to electronic transactions such as customers, users, suppliers and financial institutions. When examined together with traditional payment methods, the differences of the electronic payment method can be listed as follows;

- While classical payment methods are based on physical means such as cash circulation, invoice processing, and interbank transactions, all electronic payment methods are digital as they offer digital activities to enable the transfer of information data.
- The principle of operation of electronic payments is based on the provision of online networks (internet), while among the classical payment methods it is based on closed-circuit payment systems.
- Although e-payments use means of transmission such as the internet or extranet, traditional payment methods contain more traditional elements: e-payments almost always require online channels, hardware, software and other ancillary tasks and

Volume: 5, Issue:17, January 2024

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processes, while e-payments require a number of additional elements, such requirements are not mentioned in classic payment methods.

Advantages and Disadvantages of Electronic Commerce

With the rise of e-commerce, buyers and sellers are faced with both positive and negative aspects of e-commerce. E-commerce can bring advantages and disadvantages to both parties.

Advantages of Electronic Commerce

The most important advantage of e-commerce is to reduce time and transaction costs and thus increase the efficiency between production and consumption. In addition, as a result of national and international commercial activities being carried out in a digital environment, it has ensured that the parties (buyers, sellers, manufacturers, intermediaries, customs administrations, transporters, insurers, public institutions and other parties involved in the process) use time efficiently. In addition, since it contributes to reducing costs, it increases the competition between companies by providing businesses with a competitive advantage in both national and international markets.

According to the study conducted by Niranjnamurthy in 2013, the advantages of e-commerce can be listed as follows:

- Since there is no region limitation, it provides the opportunity to appeal to more customers.
- Thanks to comparison shopping sites, consumers can use search engines to find the lowest prices.
- In retail sales, consumers have the opportunity to order the products they want from their own homes and receive their orders in their own homes (Tamar, 2013, p. 21). This makes it easier for consumers to reach the products they want without physical effort.
- Since they do not have a physical store, companies can perform many transactions at low cost and savings are achieved.
- E-commerce sites can be accessed anytime, anywhere, from any device with an internet connection.
- Consumers benefit greatly from the convenience of 24/7 access, even when stores are not open.
- In traditional commerce, the location of a physical store is a crucial factor for the growth and profitability of the business, but e-commerce provides convenience to businesses in this regard.
- Since it is not a physical store, there are no shelf space restrictions. This allows e-commerce businesses to offer a wide variety of products to their customers.
- Procurement becomes faster, more transparent, and cheaper because the entire supply chain can be connected to business-to-business e-commerce systems.
- Because e-commerce processes are largely automated, fewer staff are needed for low-level tasks. Therefore, human resources can be used more efficiently for higher-level functions.
- All these benefits of e-commerce for buyers and sellers make online shopping more attractive. Thus, the number of companies that carry their activities to the internet environment and the number of consumers who prefer to shop on web pages are increasing day by day.

Disadvantages of Electronic Commerce

The internet, which is used by a large number of people due to its advantages and benefits and does not require large investments, has become a center of attraction for businesses. However, it should be noted that the number of companies that sell online is less than the number of companies that have a website. With so many options, it's hard to be the company of choice for online retailers. For this reason, methods such as social media marketing, e-mail marketing and digital marketing in e-commerce need to be operated with the right strategy. In order to be a reliable e-commerce site, it is necessary to work in the field of SEO. Companies that cannot do all these elements together and manage their e-commerce will not survive. Despite being blocked

under consumer protection legislation, the lack of guarantees on the quality of the goods and the resulting damages create hesitation for buyers to make a purchase.

According to the study conducted by Niranjnamurthy in 2013, the disadvantages of e-commerce can be listed as follows:

- Some consumers may want to touch, taste, try, smell and hear the products they want to buy first. E-commerce eliminates this situation
- Developments in online commerce allow consumers to access price information and make comparisons about the products they want. This is an advantage for buyers and a disadvantage for sellers.
- The risk of personal and credit card information being compromised by e-commerce businesses can cause consumers to hesitate to shop.
- E-commerce businesses are all about the website. Even a few minutes of downtime can lead to customer dissatisfaction.
- Due to the multiplicity of regulations regarding the taxation of e-commerce transactions, the issue of taxation still remains unclear, especially when the buyer and seller are in different regions. This leads not only to a lot of taxation, but also to an increase in accounting and compliance costs.
- Customers must submit by post to the 4th paragraph of the order contract. In accordance with the article, they can return the goods unconditionally by exercising their right of withdrawal within 14 days. This situation in favor of the consumer is a significant problem for e-commerce sellers, as it leads to the expansion of the reverse logistics function.
- In traditional transactions, customers can receive goods immediately after purchase. However, in e-commerce, purchases are based on trust. This is because there is no immediate physical access to the product and the supplier can be located anywhere in the world, so it is not known whether the supplier is a legitimate operator or not.

Types of Electronic Commerce (E-Commerce)

With the use of the Internet in business life, new concepts related to markets have emerged apart from the traditional ones. Research shows that there are five different market areas on the internet. These; These are business-to-business (B2B), business-to-consumer (B2C), customer-to-customer (C2C), government-to-business (G2B), and business-to-government (B2G). Figure 2 shows the types of E-Commerce.

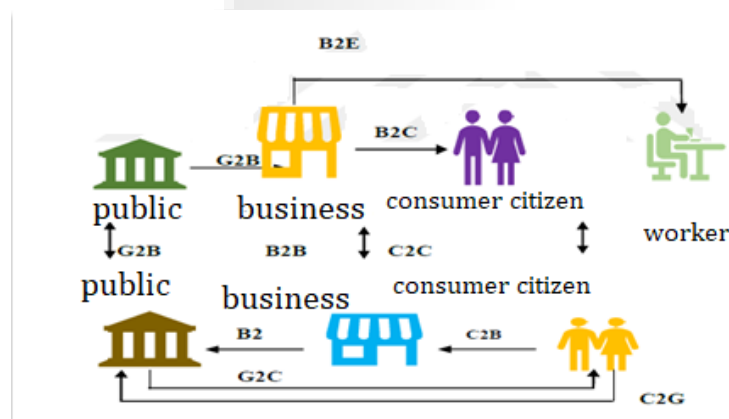


Figure 1. Types of eCommerce

Source: Şahin, 2020

Conducting commercial activities electronically provides important resources for businesses to gain competitive advantage. E-commerce provides significant benefits to both businesses and consumers.

However, there are problems in e-commerce that cause the growth rate of the business-to-consumer (B2C) e-commerce model to slow down. Many other issues persist in areas such as security, privacy, taxes, internet payments, deliveries or returns, and consumer protection.

Methods of Solving Problems in Electronic Commerce

We can list the necessary methods to eliminate the above-mentioned problems in e-commerce as follows:

Electronics Delegate (e- delegate)

The scope of electronic commerce encompasses the functions of various areas of business activity. One of them is the electronic agent. A variety of e-agents are available on many sites. For example, some websites use the "auto-boost" method. According to the system software, this process is carried out without a broker. In other words, a separate offer is created for each product or service. This offer represents the maximum limit for this person. The system keeps this secret and performs increments at a predetermined minimum rate on your behalf. When the limit set by the user is reached, the system will send an email asking for a reconsideration of the offer. In addition to this tender system, there are other transactions carried out through electronic agencies. Examples include billing processing and online payments. The country where electronic agencies are most widely used is the United States, but it cannot be said that electronic agencies are a popular system in Türkiye.

Escrow Service

With the increase in online shopping, many websites communicate with users for service purposes for pre- and post-sales business and transactions. However, just like in traditional commerce, we are faced with product delivery problems in e-commerce, some of which fall under the scope of fraud. The easy integration of e-commerce into the informal economy is a major obstacle to the defense and enforcement of victims' rights. Escrow systems are designed to solve problems that arise when you pay money but do not receive the goods or services.

The *Gittigidiyor* website, which operates in Türkiye, has implemented the escrow service for the first time. Other websites later added escrow services to their technical content. In this system, customers who make electronic purchases from their computers are not charged. The basis of the system is based on whether the funds are blocked within the created pool or not. In this customer-first system, when the buyer receives a product with the correct content, he notifies the system that the transaction has been completed successfully. These transactions will take place within 3 business days, and the funds deposited into your pool account will be unblocked as long as the seller does not cause a delivery issue.

Feedback Service

In e-commerce, feedback on how a transaction between a buyer and seller is going can affect other customers. Feedback services are also considered within this scope, and the regulations on the site allow people to express their opinions on the purchase of goods and services. This means that other customers try to form an opinion by looking at the positive and negative trends of the reviews. The main advantages of this feedback service are the possibility of two-way communication (similar to social media) and the ability to view updates without waiting on the site. The more negative reviews, the more disciplined buyers become. This service is also provided with questions that increase the functionality of the site.

How Many E-Commerce Sites Are There in the World?

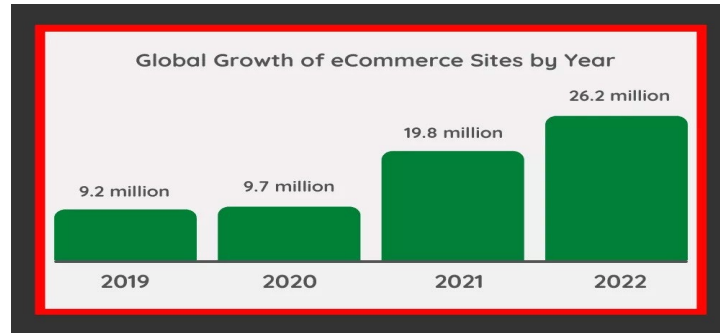


Figure 2: Number of E-Commerce Sites in the World Between 2019-2022
Source: url-1

In 2021 alone, the number of e-commerce sites in the world doubled due to COVID-19, achieving an annual growth rate of 204%.

What is the Market Size of E-Commerce Sales in the World?

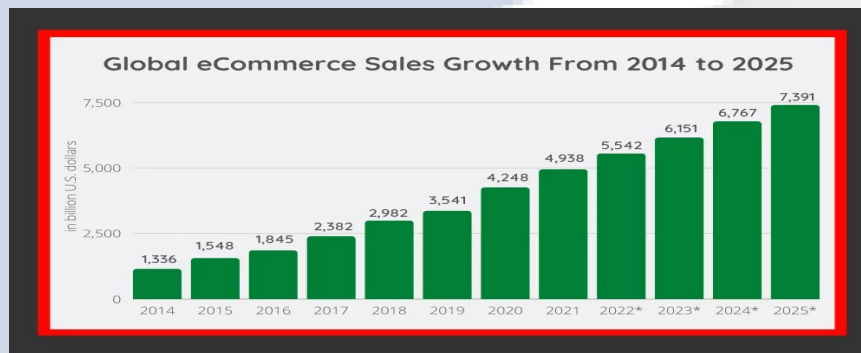


Figure 3: Market Size of E-Commerce Sales Between 2014-2025
Source: url-1

This rate is expected to increase by 50% over the next four years, reaching approximately US\$7.4 trillion in 2025.

What is the Market Size of Mobile E-Commerce Sales in the World?



Figure 4: Market Size of Mobile E-Commerce Sales Between 2016-2021
Source: url-1

By 2025, mobile e-commerce sales are expected to more than double to \$7.28 trillion, accounting for 44.2% of U.S. retail e-commerce sales.

How Many People Shop Online?



Figure 5: Number of Individuals Who Shopped Online Between 2014-2021

Source: url-1

In 2020, there were 2.05 billion online shoppers, while in 2021, this number increased to 2.14 billion, an increase of 4.4% from the previous year.

Why Do People Shop Online?



Figure 6: Reasons Why People Shop Online

Source: url-1

The number 1 reason people shop online is because of the free shipping option offered by e-commerce stores. More than half (50.7%) of consumers cite this as one of the main reasons they shop online. Other top reasons include using coupons and applying discounts (41%), reading reviews from other customers (35%), returning their products easily (33%), and having a fast checkout process (30%).

Which Countries Have the Largest E-Commerce Markets?

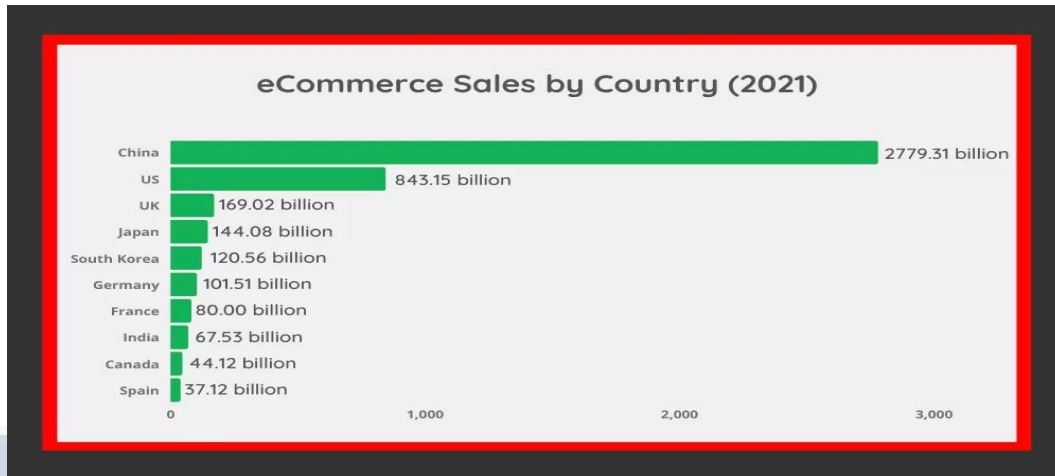


Figure 7: Countries with the Largest E-Commerce Markets
Source: url-1

China accounts for 52.1% of global e-commerce sales. Not only does China have the largest share of global e-commerce scale and revenue, but it also holds a highly dominant leadership position as the world's largest e-commerce market. In the US, the size of the e-commerce market is less than one-third of China's market with 843.15 billion dollars.

What Is the Average eCommerce Conversion Rate?

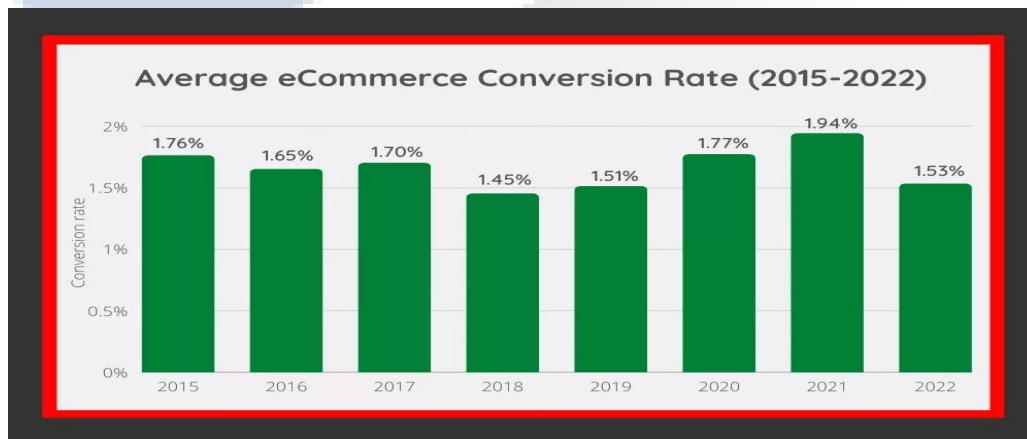


Figure8: Average E-Commerce Conversion Rates Between 2015-2022
Source: url-1

According to the latest data, the average conversion rates across e-commerce businesses were 1.53%. This number decreased by 0.41 percentage points compared to a year ago.

What Is the Average Cart Abandonment Rate?

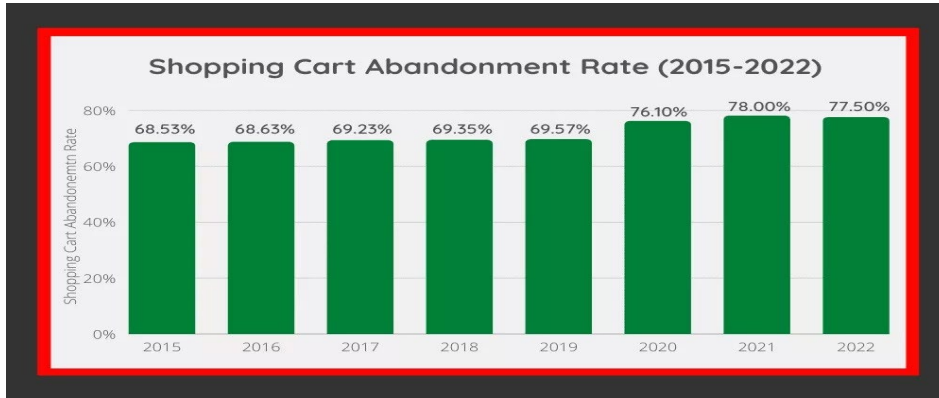


Figure 9: Average Cart Abandonment Rates Between 2015 and 2022
Source: url-1

According to the latest data, 69.57% of shopping carts are abandoned. In other words, about eight out of every ten online shopping carts are thrown away before the purchase is completed. According to the data, the average e-commerce site sees a cart abandonment rate of 80%, with the highest cart abandonment coming from mobile devices and social media.

What are the main reasons for abandonment at checkout?



Figure 10: Online Shopping Reasons for Opting Out at Checkout
Source: url-1

High extra costs are the No. 1 reason shoppers abandon their carts. The latest research on reasons for abandonment found that 58.6% of U.S. online shoppers have abandoned a shopping cart in the last 3 months "Just because I was browsing/not ready to buy."

What Are The Most Popular eCommerce Platforms In The World?

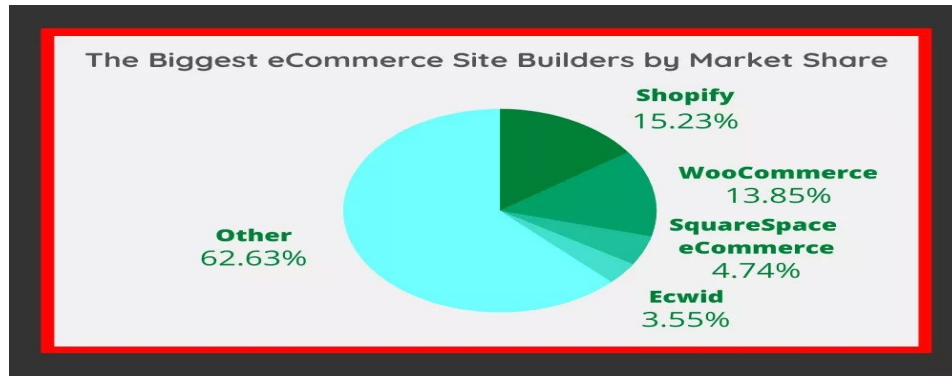


Figure 11: The World's Most Popular E-Commerce Platforms
Source: url-1

Shopify is the No. 1 most popular e-commerce site-building technology, taking more than 15% of the market share used by nearly 4 million sites. WooCommerce and Squarespace eCommerce have a share of 13.85% and 4.74%, respectively. All other platforms account for just over 62% of the market.

Digitalization and developments in the information and communication sector have become much more important for policy makers. The contribution of e-commerce to the economies of countries has made it important to identify the determinants of e-commerce. Some of the factors in question are; market size, population density, internet usage, number of smartphones, number of active bank accounts, postal reliability, per capita income and social media use. (Nielsen, 2019). These factors have positive effects on the development of e-commerce. So much so that factors such as increasing market size, population density, etc. help to expand the volume of e-commerce. There are few studies in the literature on the factors affecting e-commerce. The main reason for this situation is that the development of electronic commerce has taken place since the 1990s. The fact that the variables related to e-commerce are available after the year 2000, especially in the economies of developing countries, does not allow the relevant econometric analyzes to be made. Özekenci et al., (2017), who tried to determine the factors affecting e-commerce in the economies of European countries and Türkiye, used internet usage, gross domestic product (GDP), inflation and employment data for the period 2004-2015. The findings of the study showed that the most affecting factor in e-commerce among the variables mentioned was the use of the internet. In the study, in which a positive relationship between e-commerce and income was obtained, it was concluded that the increase in qualified workforce increased e-commerce. It has been revealed that there is an inverse relationship between the inflation rate and e-commerce.

Results

The fact that people transfer information from one place to another makes the main categories of social life dynamic. For example, the accumulation of economic knowledge has led to the development of the world economic system and the formation of a solid foundation for the philosophy of accumulation of knowledge. This dynamism has always been achieved with the accumulation of knowledge in science, art, sports, thought and many other systemic elements that affect social life. With the help of technology and the systematic and accurate sharing of information, the information society model has emerged. The information sector has a very important place in the formation of the information society. In the 1990s, the Internet provided this flow of information and carried human civilization to a completely different and dynamic dimension. Production and trade, which form the basis of the economy, also benefit from this exchange of information. Thanks to this advantage, e-commerce has enabled the formation of large transaction volumes, and today many electronic commerce transactions are carried out, from small orders to large orders. The emergence and rapid growth of e-commerce has also revealed security and taxation problems. However, these problems have been overcome to a

large extent in developed countries such as the USA, Europe and Japan.

Another problem that needs to be solved in electronic commerce is transactions that cannot be recorded. Unfortunately, due to the fact that the necessary controls cannot be fully carried out on many websites, unrecorded transactions are carried out, which causes financial economic losses. In addition to the financial informality in the traditional system, the inability to collect taxes through the virtual environment is another issue that needs to be resolved. In addition, when the technical infrastructure is strengthened, control in the virtual environment offers opportunities that can be more effective than other traditional methods. For this reason, preventing transactions that are not recorded electronically will increase the consumer's trust in the system. E-commerce has developed rapidly because it is more advantageous than other methods of commerce. In short, e-commerce is defined as all purchases and sales made using internet tools. As can be understood from this definition, the e-commerce process does not end with the completion of a purchase. It also covers the services provided afterwards, i.e. products and technical support. The instruments used in the transaction are electronic payment, telephone, television and money systems. The phone is the first tool used in e-commerce. Thanks to the development of technologies, it has made progress at the functional level. The basic telephone tool is a type of tool used in the banking industry today and is still valid. The communication tools used in the transfer of documents are carried out by telefax method. However, due to the high costs, it is not used much among e-commerce tools.

The active use of e-commerce affects the costs, quality and prices of companies. As the production levels of the companies increase, the opening of the markets to competition and the reduction of costs in this context also have a positive effect on price stability. As the production levels of the companies increase, the opening of the markets to competition and the reduction of costs in this context also have a positive effect on price stability. Among the sectors that follow the new technology, the banking sector ranks first. The industry has experienced a shift from cash banking to telephone banking, which has brought significant benefits to both customers and banks. Electronic commerce has not only changed the form of trade, but also brought radical changes in the structure of society and institutions with the innovations brought by its technology.

In a globalized world, with technological developments, innovations, internet usage and penetration rate, and significant spread of internet usage, consumers' interest in electronic commerce has gradually increased. Commercial behavior and phenomena that have been going on for centuries have gained a different dimension with the realization of activities and transactions by electronic means and the development of the phenomenon of electronic commerce. As a result of the increase in users' interest in e-commerce, the industry has experienced extraordinary growth and has become the center of attention of people. Attractive terms and conditions of sale on various e-commerce platforms have led to a significant improvement in terms of those offering the use of easy interfaces.

As a result, e-commerce is growing rapidly, and numerous technologies have come together to facilitate the proliferation of e-commerce systems. However, such systems face a challenging future in terms of the security risks they must avoid. While technology is moving at high speed, e-commerce can never claim to cover 100% of any security measure. Security issues are extremely important for the survival of any system and therefore must be constantly analyzed and dealt with. In addition, security issues and precautions should come to mind first and be taken seriously, not later. In order for companies to confidently look to the bright and promising future of e-commerce, they need to follow security standards and disciplines to gain and maintain consumer confidence in this new type of economy. There are guidelines to ensure the security of existing systems and networks for e-commerce systems personnel to read and implement. Educating the consumer on security issues is still in its infancy, but it will prove to be an important component of e-commerce security architecture. E-commerce is among the rapidly developing sectors in parallel with the developments in the information-communication sector. The e-commerce sector, which has made significant progress, especially with the widespread use of the internet, has become important in the economies of the countries.

The e-commerce sector, which is common in the world, especially in developed countries, has also become widespread in the economies of developing countries with the effect of globalization. When sites and platforms with significant transaction volumes in e-commerce are examined, it has been determined that Alibaba and Amazon stand out. Considering that the aforementioned companies have an income close to Türkiye's national income, it is seen that e-commerce is an important income item. Especially during the Covid-19 pandemic process, global closures have occurred. In this period, those who supply goods and services and those who demand them have had the opportunity to shop with e-commerce. So much so that in this period, the volume of e-commerce transactions increased approximately 2 times. Both manufacturers and consumers have various concerns about shopping with e-commerce, which has become widespread recently. Various legal arrangements need to be made to address these concerns. When the countries where e-commerce is common are examined, it is seen that they are generally developed countries. Therefore, it is considered important to carry out relevant structural reforms for developing countries. Thus, it is thought that the relevant country groups will be able to gain significant shares from the e-commerce sector and will make a positive contribution to the sustainable growth and development of the country's economies.

Acknowledgment: The authors have not received financial support from the University or any other institution/organization. The authors are grateful to the journal's anonymous reviewers for their extremely helpful suggestions to improve the quality of the manuscript.

Conflicts of Interest: The authors declare no conflict of interest.

REFERENCES

- Baydar, V. (2010). E-Ticaret Kavramı ve E-Ticareti Etkileyen Faktörlerin Panel Veri Analizi, Yüksek Lisans Tezi, Süleyman Demirel Üniversitesi Sosyal Bilimler Enstitüsü, Isparta.
- Chunling, W. (2015). "Research on Economic Growth and Information Exchange Based on B2B E-Commerce", *The Open Cybernetics & Systemics Journal*, 9,2065-2069.
- Hasiloğlu, S. B. (2003). Elektronik Ticaret ve Stratejileri. Ekonomik ve Teknik Dergi, Standart, Sayı 494.
- İzgi, B.B., & Şahin İ. (2013). "Elektronik Perakende Sektörü ve İnternet Alışverişi Tüketici Davranışı: Türkiye Örneği", *Ekonomi ve Yönetim Araştırmaları Dergisi*, 2(1), 9-27.
- Nielsen, (2019), "Future Opportunities İn Fmcg (Fas Moving Consumer Goods) E-Commerce:Market Drivers And Five Year Forecast", <https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/Future-Opportunities-İn-Fmcgecommerce.Pdf>
- Niranjanamurthy, M., Kavyashree N., Jagannath & Chahar, D. (2013). Analysis of E-Commerce and M-Commerce: Advantages, Limitations And Security Issues. *International Journal of Advanced Research İn Computer and Communication Engineering*, 2(1), 2360-2370.
- Özekenci, E. K. (2017). Türkiye ve Avrupa Ülkelerinde E-Ticareti Belirleyici Faktörler: Panel Veri Analizi, Yüksek Lisans Tezi, Çağ Üniversitesi Sosyal Bilimler Enstitüsü, Tarsus, Mersin.
- Şahin, H. İ. (2020). Türkiye'de Ticaretin E-Dönüşümü: Küçük Ölçekli İşletmeler ve Girişimciler İçin E-Ticaret. (Yüksek Lisans Tezi).
- Tamar, S. R. (2013). Küçük ve Orta Büyüklükteki İşletmelerde E-Ticaret, Karşılaşılan Sorunlar ve Çözüm Önerileri: Ankara İlinde Bir Uygulama. (Yayımlanmış Yüksek Lisans Tezi), Gazi Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.

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url-1: <https://tr.linkedin.com/pulse/dünya-e-ticaret-istatistikleri-ferdi-alma> (accessed on 15.12.2023).