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Department of Sociology, Economic
Theory and International Processes
38.04.01 Economics
International Economics and Business

GRADUATION THESIS

on

Development of e-commerce in modern global economy

Master's degree student

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ASSIGNMENT
FOR THE GRADUATION THESIS OF

Master's degree student Wang Rui, group 22ЭЭБма1, full-time mode of study

1 The topic of the graduation thesis: "Development of e-commerce in modern global economy"

was approved by the university order
dated «___» _____ 20__ no. _____

2 The deadline for the Master's degree student to complete the graduation thesis is 11.06.2024.

3 The input data for the graduation thesis is the regulatory and legal framework, scientific literature and reference books, and Internet data.

4 The list of issues to be studied includes application of e-commerce in development of modern global economy; influence of e-commerce in development of modern global economy; countermeasures and suggestions for e-commerce in development of modern global economy.

5 The list of visuals contains tables and figures.

6 The date of setting the assignment is 28.11.2023.

Academic adviser _____ / Vasin S. M. /
(signature) (full name)

The assignment was accepted by Master's degree student _____ / Wang Rui /
(signature) (full name)

Schedule for completing the graduation thesis

№ п/п	Content of the thesis	Deadline for completion	Due date, signature of the academic adviser
First year of study			
1	Substantiating of the research topic and methodology, subject and object of research	1.09.2022 – 31.10.2022	
2	Framing the scientific concept of research	1.11.2022 – 18.12.2022	
3	Collection of scientific literature for the thesis	19.12.2022 – 15.01.2023	
4	Substantiating the relevance, concept, and novelty of the research	16.01.2023 – 19.02.2023	
5	Framing of a detailed plan and layout of the research	20.02.2023 – 12.03.2023	
6	Studying new literature sources within the topic of the thesis	13.03.2023 – 26.03.2023	
7	Conducting theoretical research within the first chapter of the thesis	27.03.2023 – 30.04.2023	
8	Preparing the first chapter of the thesis	1.05.2023 – 30.06.2023	
Second year of study			
9	Conducting analytical research within the second chapter of the thesis	1.09.2023 – 22.10.2023	
10	Preparing the second chapter of the thesis	23.10.2023 – 24.12.2023	
11	Conducting analytical research within the third chapter of the thesis	25.12.2023 – 25.02.2024	
12	Preparing the third chapter of the thesis	26.02.2024 – 21.04.2024	
13	Preparing the introduction and conclusion	22.04.2024 – 12.05.2024	
14	Completing the graduation thesis	13.05.2024 – 26.05.2024	
15	Handing in the thesis for compliance control and antiplagiat	27.05.2024 – 9.06.2024	
16	Getting acquainted with the feedback and review	10.06.2024	
17	Presenting the written thesis	11.06.2024	

Academic adviser _____ / Vasin S. M. /
(signature) (full name)

The assignment was accepted by Master's degree student _____ / Wang Rui /
(signature) (full name)

Summary

The graduation thesis comprises 65 pages, 3 chapters, 18 figures, 6 tables, 67 sources.

E-COMMERCE, MODERN GLOBAL ECONOMY, POSITIVE INFLUENCE FACTOR, NEGATIVE INFLUENCE FACTOR, MARKETPLACE, INTERNET-RETAIL, INTERNET-PLATFORM.

The target of research is to further investigate and study the application and trends of e-commerce in modern global economic development. To reflect the future development trends of the global economy in the complex economic chain.

The research goal is to further investigate and study the application and trends of e-commerce in modern global economic development.

The methodological framework of the paper is formed by the complex of theoretical and practical methods such as literature research, qualitative analysis, and comparative analysis. Focusing on the current status and trends of e-commerce development in the context of modern economy, with the aim of promoting sustainable development of global e-commerce trade.

The novelty of this paper lies in the comprehensive study of the current situation and future development trends of the global economy, the analysis of international e-commerce platforms and digital trade data between countries, and the specific comparative study of the development of e-commerce between China and Russia. The existing problems of e-commerce are discovered, and corresponding solutions are proposed to improve the quality of e-commerce services and green sustainable development.

The results of research include: in order to better apply e-commerce to international trade, it is necessary to strengthen the construction of digital infrastructure, establish supporting laws and regulations, improve payment systems, strengthen the construction of professional talent teams, and fully leverage the promoting role of e-commerce in the development of international trade.

The recommendations on disseminating and applying the results are as follows: due to lack of talent and knowledge, insufficient abilities, coupled with limited time and energy, there is insufficient rigor in the expression and argumentation of certain content.

The theoretical relevance of the thesis is established by Macroeconomic theory, international economic and trade regulations, etc.

The target of research can be further explored through the existing problems of e-commerce are discovered, and corresponding solutions are proposed to improve the quality of e-commerce services and green sustainable development.

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Introduction

In today's society, a prominent feature of promoting the globalization of economic and industry is the high-tech industry, which takes the information industry as the center and has become the dominant force. In this economic background, e-commerce has become an important way for global enterprises, economic organizations and other social groups to participate in economic exchange activities, showing a trend of prosperity. E-commerce has become a necessary product of the development of the new economic era, and can not be separated from people's life. The development of e-commerce has changed the traditional international trade mode, made the information flow more timely and efficient, reduced the cost of information, management and coordination of traditional trade, enabled the buyers and sellers to directly connect, reduced the intermediary contact in international trade, and greatly reduced the cost of traditional international trade.

As for the international economy, Hou Hongyu pointed out in the analysis of the development path of international economy and trade under the background of e-commerce that the main content is that under the background of globalization, with the development of modern information technology, the e-commerce mode based on the Internet platform has emerged, innovating the mode and structure of global trade [18].

At present, China's e-commerce has achieved cross-border development. In recent years, the international economic situation has been sluggish, and the development of international trade has shown a weak trend due to the impact of the economic environment. However, with the rapid development of e-commerce, international trade has also ushered in a new development opportunity. China has established trade partnerships with 23 countries on five continents to strengthen trade planning and coordination, as well as cooperation in industrial transformation and capacity building. At the same time, China's manufacturing powerhouse has utilized its own advantages, expanded sales channels in the international market, and reasonably expanded imports and exports, which will further promote the transformation and upgrading of enterprises and foreign trade. This is of great significance for accelerating the implementation of national initiatives such as the "the Belt and Road" and promoting economic development and upgrading. At the same time, the

government has also introduced various preferential policies to facilitate trade and drive the development of cross-border e-commerce.

About economic policy, when constructing an explanatory theory on the infringement liability of e-commerce platform operators for violating security obligations, It is necessary to follow the requirements of equity. Mo Yangshen in his article: “The systemic construction of the tort liability for the violation of the duty of security care obligation of e-commerce platform operators” [31]. It is pointed out that the main content is in the era of Big data, the deep development and wide application of information technology has caused a huge privacy crisis and personal information infringement risk.

There are three dimensions. The first dimension is the balance of the system. To achieve the balance of the system, it is necessary to maintain the non contradiction of the external system and the consistency of the internal system. The second dimension is the transformation of public law norms into equity in private law. By reasonably shaping the constituent elements of the fault, damage, and causal relationship of e-commerce platform operators who violate security obligations, the judiciary standing at the confluence gate of public and private laws can make an equitable decision on how and how much traffic public and private law norms should be injected into private law. The third dimension is the balance of responsibility. The form of infringement liability that e-commerce platform operators must bear after violating their security obligations. It should be possible to balance the interests of platform operators, platform operators, and consumers, and to distinguish and regulate intentional and negligent infringement.

The object of this research is e-commerce. The subject of this thesis is development of e-commerce at modern global economy.

The research goal is to further investigate and study the application and trends of e-commerce in modern global economic development. To reflect the future development trends of the global economy in the complex economic chain. E-commerce has become an inevitable product of the development of the new economic era, so it is necessary to achieve the maximization of social wealth in terms of social operating costs, social production efficiency, and social resource allocation.

Tasks of this paper are:

- describe application of e-commerce in development of modern global economy;
- analyze influence of e-commerce in development of modern global economy;
- study countermeasures and suggestions for e-commerce in development of modern global economy.

The novelty of this paper lies in the comprehensive study of the current situation and future development trends of the global economy, the analysis of international e-commerce platforms and digital trade data between countries, and the specific comparative study of the development of e-commerce between China and Russia. The existing problems of e-commerce are discovered, and corresponding solutions are proposed to improve the quality of e-commerce services and green sustainable development.

The main methods used are literature research, qualitative analysis, and comparative analysis. Focusing on the current status and trends of e-commerce development in the context of modern economy, with the aim of promoting sustainable development of global e-commerce trade.

The work structure is determined by the purpose and tasks decided in the work. For the research on the development of e-commerce in the modern global economy, the first step is to plan and write the goals and objectives to be achieved, and by searching for research methods in economics, consider the most suitable research method for this article. Secondly, the thinking framework of the article was laid out: it is mainly divided into three chapters. The first chapter focuses on the application of e-commerce in modern global economic development, which is mainly divided into two parts: the current development status of e-commerce and the trends of modern global economy. The purpose is to lay the foundation for future research on the development trends of e-commerce and provide theoretical basis; Chapter 2: Write about the impact of e-commerce on modern global economic development, mainly focusing on negative and positive impacts, analyzing whether e-commerce can develop normally in the new economic environment; Chapter 3 is about the countermeasures and suggestions for e-commerce in the development of modern global economy, proposing to standardize the operation mechanism of e-commerce and the perfect logistics distribution system, etc., and contributing to the better development direction of e-commerce for the convenience and benefit of the people.

This paper starts from the background of a modern global economy and takes e-commerce as the research object in the context of the modern global economy, and proposes new solutions to the development problems of e-commerce through literature research. It also proposes improvement measures for the current shortcomings in the development ability, legal regulation ability, talent cultivation ability, and logistics management system ability of global e-commerce, helping global economic development, e-commerce platform developers, and other enterprises to better build a learning oriented e-commerce. The current research on e-commerce by scholars mainly focuses on specific application programs and macro level overall research, lacking concrete analysis of the development factors of e-commerce in the global economic context. They overlook the development problems of e-commerce caused by regional imbalances in global economic development, different development rates between developing and developed countries, and cultural differences among countries.

Combined with the actual situation, this paper analyzes the development status of e-commerce from the background of the modern global economy, and focuses on the influence and role of e-commerce in the modern global economy. Therefore, in order to make e-commerce more convenient and benefit the people, Using the method of literature research, from the present situation of electronic commerce development. Through data analysis of global e-commerce platform service and audience, comparative analysis of typical countries e-commerce development status, and e-commerce on the global economy of the positive and negative impact and put forward the corresponding strategy, so as to better boost the global economic health, healthy, long-term development. Finally, from the perspective of e-commerce, it puts forward a new road for the innovative development of world international trade, and provides a reference basis for the high-quality development of global international trade.

Chapter 1 Application of e-commerce in development of modern global economy

1.1 Development status of e-commerce

The meaning of e-commerce usually refers to a new type of business operation model in a wide range of commercial and trade activities around the world, in the open network environment of the Internet, based on browser/server application methods, where buyers and sellers engage in various commercial activities without meeting face-to-face, achieving online shopping for consumers, online transactions between merchants, online electronic payments, and various business activities, transaction activities, financial activities, and related comprehensive service activities. Governments, scholars, and business professionals from various countries have provided many different definitions based on their respective positions and perspectives and degrees of participation in e-commerce. E-commerce is divided into B2C, B2B, C2C, C2B, B2A, C2A (figure 1).

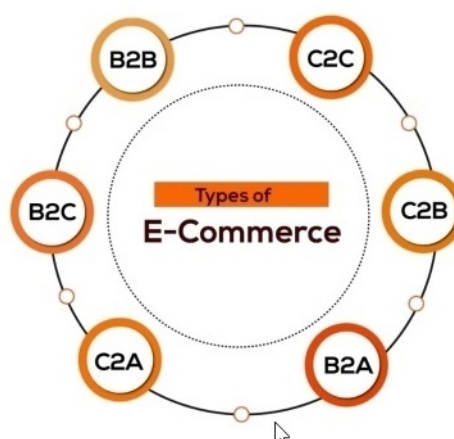


Figure 1 – Types of e-commerce [42]

Business to Customer (B2C) e-commerce between businesses and consumers. This is a form in which consumers directly participate in economic activities through the Internet, similar to the electronic retail business of commerce. With the emergence of the Internet, online sales have rapidly developed. B2C (Business To Customer) is a type of e-commerce

classification based on transaction partners, which represents the e-commerce of commercial institutions to consumers.

Business to Business (B2B) between enterprises. The B2B approach is the most widely used and highly valued form of e-commerce for enterprises. Enterprises can use the Internet or other networks to find the best partners for each transaction and complete all transaction behaviors from ordering to settlement. B2B refers to online transactions between businesses. B2B refers to Business to Business, which refers to the e-commerce between businesses.

Consumer to Consumer (C2C) e-commerce between consumers. The C2C business platform provides an online trading platform for both buyers and sellers, allowing sellers to actively offer products for online auctions, while buyers can choose their own products for bidding. The meaning of C2C is e-commerce between consumers. For example, if a consumer owns an old computer and sells it to another consumer through online auction, this type of transaction is called C2C e-commerce.

C2B is a type of e-commerce model, which refers to consumer to business. The consumer to business (C2B) model, which first became popular in the United States, may be a noteworthy attempt. The core of the C2B model is to form a powerful purchasing group by aggregating a large number of users, in order to change the weak position of one-on-one bidding among users in the B2C model, and enable them to enjoy the benefits of buying single items at the price of large wholesalers.

Business to Administration refers to the electronic commerce activities between businesses and government agencies. For example, the government will publish the details of procurement on the Internet, and invite bids through online bidding. Enterprises also need to bid electronically. At present, this approach is still in the early experimental stage, but it may develop quickly because the government can establish its image through this approach and promote the development of e-commerce through demonstration. In addition, the government can also implement administrative management of enterprises through such e-commerce, such as issuing import and export licenses and conducting statistical work through e-commerce, and enterprises can handle tax payments and refunds online. The Jin Guan Project in our country aims to establish an e-commerce framework with foreign trade

as the leading force through the issuance of import and export licenses, processing of export tax refunds, and electronic customs declaration by commercial institutions, and promote the development of various e-commerce activities in our country.

Consumer to Administration, Consumer to administrative e-commerce refers to government to individual e-commerce activities. This type of e-commerce activity has not yet truly formed. However, in some developed countries, such as Australia, government tax agencies have designated private tax authorities or financial accounting firms to electronically file taxes for individuals. Although this type of activity has not yet reached true electronic tax reporting, it has already formed the embryonic form of consumer e-commerce for administrative agencies. The relevant factors involved in the operation of e-commerce companies are shown in the figure 2.

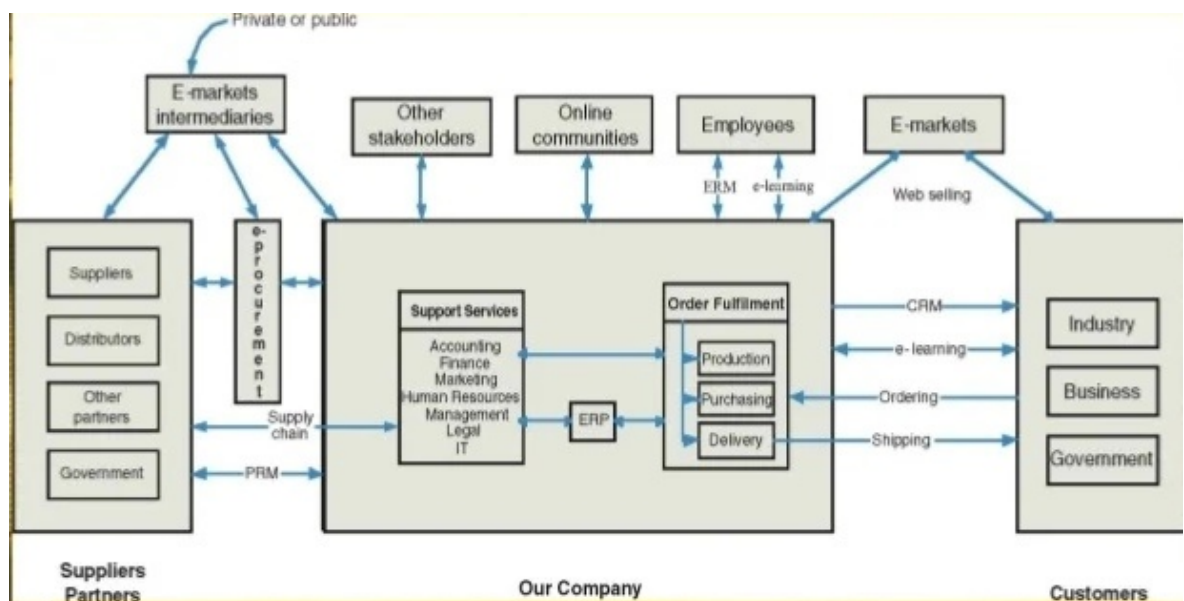


Figure 2 – Structure and process of e-commerce [42]

We can see that the entire e-commerce is divided into three modules. The first module focuses on supplier partners, the second module focuses on internal company operations, and the third module is the consumer module. The stakeholders of the entire e-commerce include five elements: e-commerce intermediaries, other stakeholders, online communities, employees, and the e-commerce market. Among them, e-commerce intermediaries include suppliers, distributors, other partners, and the government, which constitute a partnership

management system that provides the company with an industrial chain through electronic procurement. And other stakeholders, online communities, and employees work together to provide services and order execution for the company, including account management, funds, marketing, human resources, management, legal, and IT. This part ensures that after completion, it is assigned to employees through the enterprise resource management system, allowing employees to execute orders based on the company's resources and e-learning, focusing on production, purchasing, and shipping. This is also the main responsibility of employee work. The final feedback given by the company to customers is that they use electronic markets as a medium to deliver items through online sales and customer relationship management systems. During the delivery process, both the customer and the company need to pay attention to whether the shipping route meets government regulations, whether it meets commercial order requirements, and whether it meets factory production requirements. In summary, a complete e-commerce work chain cannot be separated from the joint cooperation of suppliers, company entities, and consumers. Only in this way can the e-commerce market complete a complete operating system.

E-commerce with practical significance first emerged in the 1970-s and rapidly developed in the 1990-s. The important conditions for its emergence and development include the widespread application of electronic computers; The establishment of a global information network; The popularization and application of electronic credit cards; The development of electronic secure transaction protocols; Government support and policy promotion; The needs of enterprises [37].

Since the 1990-s, computer network technology has developed rapidly, and networking and globalization have become irresistible world trends. Computer network technology has been searching for larger and more direct profit margins beyond the fields of text processing and information transmission, and the business sector has naturally become its preferred target. The rapidly expanding number of computer network users has also attracted the interest of visionary businesses. From simply publishing and transmitting information online to establishing a business information center online, from immature e-commerce transactions relying on traditional trade methods to e-commerce virtual markets that can complete all business processes of supply, production, and sales online, from closed

banking electronic financial systems to open online electronic banking, e-commerce is booming. E-commerce is a market with enormous development potential and attractive development prospects.

The e-commerce system, e-commerce server, and e-commerce shopping process in e-commerce are the core content of e-commerce technology. It is of great practical significance to extensively and deeply study various e-commerce shopping processes, research application software for implementing e-commerce shopping processes, and various modern electronic payment tools. To carry out e-commerce, it is necessary to conduct in-depth research on high-tech aspects such as security, confidentiality, and authentication in e-commerce. Especially mobilize all industries, departments, and customers to take action and actively participate. The banking and finance industry should fully achieve financial electronization, and customs, taxation, commodity inspection, insurance, import and export companies, packaging and transportation companies, etc. should also achieve electronization and modernization. Widely and deeply promoting e-commerce and popularizing e-commerce knowledge are of great practical significance.

E-commerce usually refers to a new type of business operation model in a wide range of commercial and trade activities around the world, in the open network environment of the Internet, based on client and server application methods, where buyers and sellers engage in various commercial activities without meeting face-to-face, achieving online shopping for consumers, online transactions between merchants, online electronic payments, as well as various business activities, transaction activities, financial activities, and related comprehensive service activities. Governments, scholars, and business professionals from various countries have provided many different definitions based on their respective positions and perspectives and degrees of participation in e-commerce.

At present, the world trend shows the outflow of consumers from traditional retail to online retail and the specialized trading platforms integrated with mobile applications. E-commerce plays a key role in promoting e-commerce innovation. The Internet and digital technologies have enabled companies of all sizes to enter and expand into new markets, making it easier for them to participate in global value chains, expand and benefit from knowledge dissemination.

According to figure 3, global GDP and growth in the past five years, the total global GDP in 2023 will reach over 92.2 trillion US dollars, and the year-on-year growth rate will slow down to 2.7% [29]. By the end of 2023, merchandise trade volume was up 6.3% compared to 2019. Commercial services also increased, with annual US dollars values up 21% between 2019 and 2023. In 2023, the global trade volume of goods reached 23.4 trillion US dollars, a decrease of 6.4% compared to the previous year, due to the sustained impact of the macroeconomic situation on both supply and demand sides. The value of the US dollar in world commodity trade has decreased by 5% to 24.01 trillion US dollars. Under the environment of downward pressure on the global economy in the future, the trade flow between countries and regions will remain active, and the global import and export trade will still have a certain resilience [9].

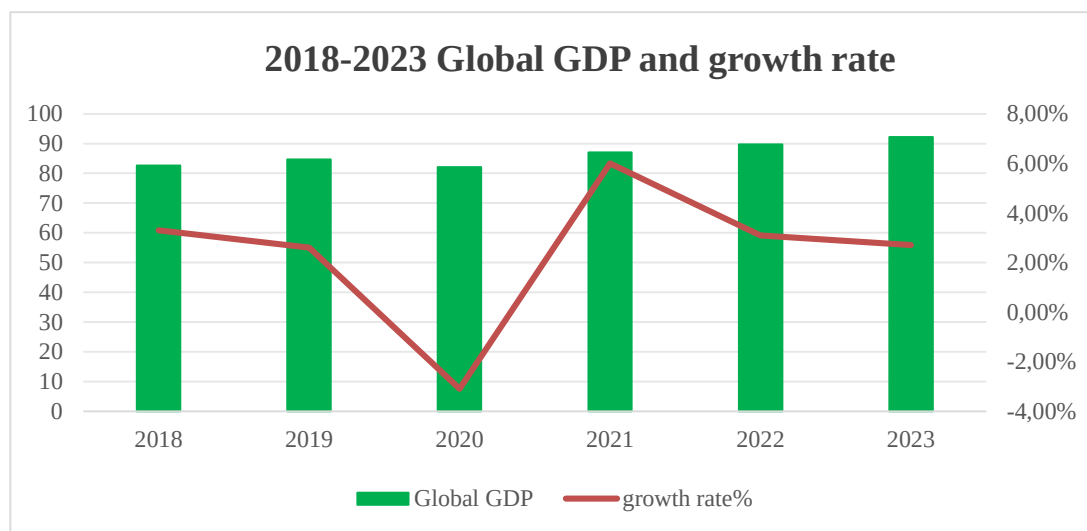


Figure 3 – 2018–2023 Global GDP and growth rate [52]

According to figure 4, the proportion of e-commerce in the total sales of trading companies shows that the global share of retail e-commerce in 2019 was 13.7%. In 2023, the share of e-commerce is expected to increase to 19.5% [9]. Therefore, it can be seen that with the progress of international trade, whether cross-border exports are B2B or B2C e-commerce, their purchasing behavior will be influenced by purchasing decision-makers. The strong development momentum of overseas retail e-commerce will provide a new round of development opportunities for e-commerce.

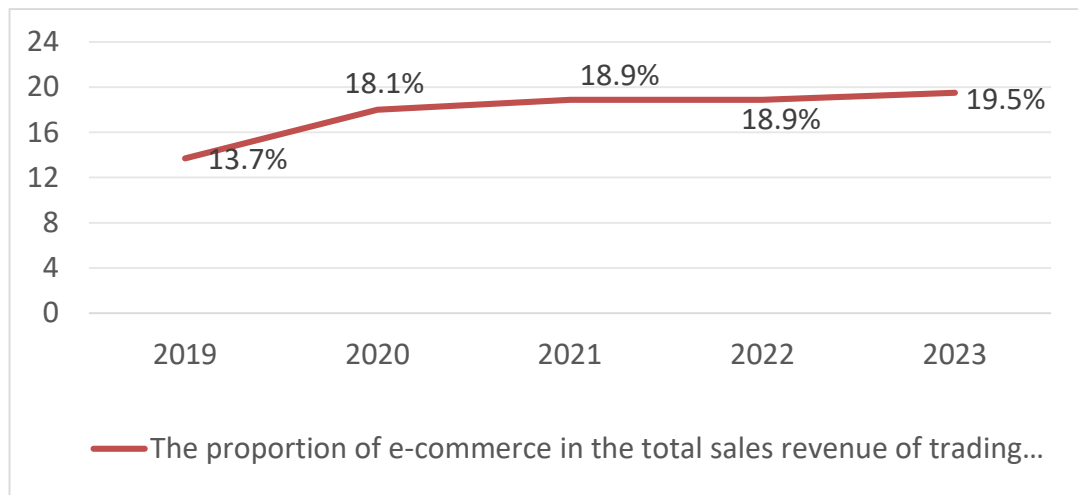


Figure 4 – Proportion of e-commerce in the total sales revenue of trading companies [52]

At the beginning of the outbreak of the COVID-19 in January 2020, it had a relatively serious impact on e-commerce, which can be reflected in two aspects: first, various regions gradually entered a state of blockade, and e-commerce warehouses in many regions were shut down, resulting in a large number of goods in the warehouse, which could not be sold; Moreover, the daily amount of warehouse management and rental fees is significant, which has had a fatal impact on some e-commerce businesses with weaker economic capabilities. Secondly, cross-border e-commerce is an important form in the current e-commerce field. Some cross-border e-commerce companies are unable to deliver goods on time, resulting in a large number of overseas customers canceling orders. Domestic cross-border e-commerce companies face the risk of breach of contract compensation that is difficult to bear. At this stage, the regional governments have not yet shifted their attention to e-commerce and issued corresponding support policies, so the arrival of the COVID-19 has seriously hit the development of some e-commerce enterprises.

With the deterioration and spread of the COVID-19, the management and control in various regions have been strengthened. During this period, the main problems of e-commerce development are: first, the logistics transport capacity has been severely restricted due to the blockade of various regions, and the logistics transport industry in the region has recovered slowly, resulting in a large backlog of orders that cannot be delivered. In terms of exports, digitalization of the supply chain has become a new trend in cross-border e-commerce. The spread of the global pandemic has led to lower activity in overseas

markets, but has had a relatively small impact on domestic e-commerce supply chains; At this time, enterprises should seize the opportunity of overseas development, timely introduce data technology, build data systems, connect with overseas online management platforms, use digital technology, overseas warehouses, etc. to upgrade and transform the supply chain, in order to improve the comprehensive competitiveness of e-commerce on international platforms. Secondly, in terms of imports, China has innovated new market trends and consolidated the new trend of market development through the combination of online and offline methods. During the COVID-19, online restaurants, online grocery stores, and online supermarkets have combined "online" and "offline" service models to meet the consumer needs of the people. This situation has also to some extent changed people's consumption concepts and habits. Small videos, live streaming, and other new sales models have further promoted the integration of some high-quality offline products into the e-commerce market.

Since 2020, driven by the pandemic, global e-commerce growth has sharply slowed down. In 2022, the growth rate of global e-commerce sales reached its lowest level since tracking began in 2011, and for the first time in some major markets, the growth rate of e-commerce was lower than that of physical retail. In 2022, the global e-commerce growth rate was 7.1%, lower than the expected 9.7%. Due to the uncertainty of the economic outlook, the expected growth rate of global e-commerce in 2023 will be lowered from 10.4% to 8.9% [43].

In addition, in the past decade, the growth rate of e-commerce has far exceeded the overall retail growth, and this trend came to an abrupt end in 2021 and 2022, and the gap between the two will be greatly narrowed in the future. In 2022, due to a large number of consumers returning to physical stores for shopping, this gap is only 2%, and the growth rate of e-commerce in 2023 will only be 5% faster than overall retail.

By analyzing the data in figure 5, the growth of e-commerce sales from 2021 to 2022 has decreased, but the base is getting larger. In 2023, global e-commerce sales reached nearly 600 billion US dollars, and sales are still expected to increase by 483 billion US dollars, exceeding the size of the entire US e-commerce market in 2017. As the base grows, the end of the era of high growth does not necessarily mean a slowdown in sales growth. By 2025, global e-commerce sales will reach \$7 trillion, twice the amount in 2019. In online

transactions, China’s digital wallet holds a leading position globally, while the penetration rate in most other countries is still relatively low. In 2022, digital wallets accounted for 81% of China's e-commerce transaction volume and 56% of point of sale transaction volume.

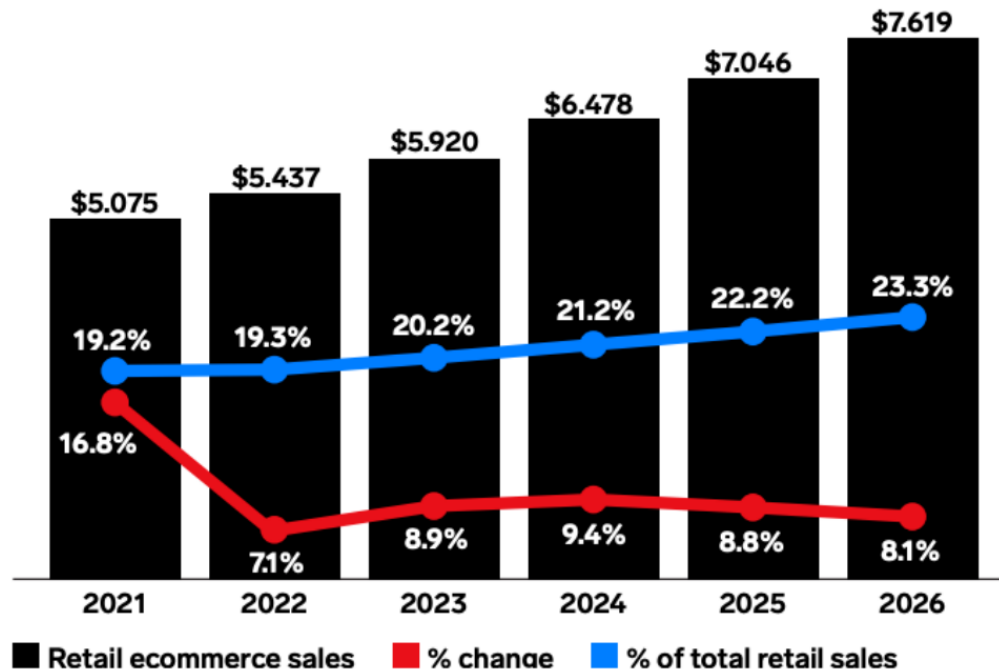


Figure 5 – 2021–2026 Retail Ecommerce Sales Worldwide [50]

By analyzing the data in table 1, China is the largest e-commerce market today. China will remain the world’s largest e-commerce market in 2023, with the market size expected to reach \$2.2 trillion, accounting for nearly half of total global e-commerce sales.

Table 1 – Top 15 countries in internet sales, 2023 [51]

No	Country	Sales revenue (trillion \$)	Sales growth ratio
1	China	2.2	13.2%
2	America	1.1	14.4%
8	India	0.57	9.0%
9	Canada	0.55	10.9%
15	Russia	0.36	20%

The U.S. e-commerce market sales revenue is expected to grow 14.4% to reach \$1.1 trillion, contributing 9.6% to global e-commerce sales growth, becoming the world’s second-largest e-commerce market. India is the 8th largest e-commerce market in the world

with projected sales revenue growth of 9.0% in 2023, while Russia is the 15th largest e-commerce market with projected sales revenue growth of 50.3% to \$35.62 billion in 2023. In the first half of 2023, e-commerce sales in Russia increased by 20% year-on-year to reach \$27.67 billion [6].

The earliest online stores in Russia began in 1995, while the e-commerce market began to develop rapidly in early 2010. Since then, the volume of transactions in this sector of the economy has increased several times and continues to grow. Like most countries in the world, Russia is actively developing local online trading systems. In addition, the Russian system is gradually integrating into the global e-commerce system, playing an important role in the process of globalization, and Internet commerce is one of the most active sectors of the Russian economy.

High number of consumer groups in 2022, Russia's e-commerce transactions reached 4.98 trillion rubles, an increase of more than 30%. Among them, Russia's domestic e-commerce platform accounted for 96.4%, the transaction volume reached 4.81 trillion rubles, an increase of 33%; E-commerce accounted for 11.6% of Russia's retail trade in 2022, an increase of 2.4% from the beginning of 2022. It is expected that in 2023, Russia's e-commerce transaction volume may increase by 25%-30% [63]. In January 2022, the scale of Internet users in Russia reached 130 million people, accounting for nearly 90% of the total population, and the Russian e-commerce market showed a substantial growth trend. In 2021, the total online retail market in Russia has exceeded \$25 billion, and the scale of users participating in online shopping has reached 30 million, which provides good conditions for the development of cross-border e-commerce industry in Russia to a large extent.

Russia is one of the five largest economies in the world and the largest purchasing power parity economy in Europe, and according to data from trading economics, Russia's per capital GDP(in purchasing power parity terms) reached \$27,584.17. At the same time, Russia has a population of nearly 147 million, of which 74.4% are urban and 25.6% are rural, and a large urban population means that it can drive stronger consumption power.

In 2022, new platforms and new traffic will provide new space for the growth of cross-border e-commerce. The consumption habits of foreign users have changed, they stay longer on social media, and are more inclined to shop and consume through social media,

which provides opportunities for the development of cross-border live streaming e-commerce and brings new traffic to cross-border e-commerce. The demographic dividend and traffic dividend of traditional e-commerce platforms are gradually fading, and the new traffic of new platforms brings new opportunities for the development of cross-border e-commerce in China.

In 2022, according to the data in Figure 6, China's e-commerce related service outsourcing contract signing and execution amount is 4.11 billion US dollars and 2.87 billion US dollars, increasing by 24.5% and 26.7% respectively. Big data, artificial intelligence, cloud computing and other new generation of information technology in the application of e-commerce consulting services is more widespread, more and more customers try to use intelligent sales management, to achieve both quality and growth.



Figure 6 – Scale of China's e-commerce service market [52]

The main mode of cross-border e-commerce between China and Russia is B2B, which is characterized by large sales and physical profits, long-term cash flow and regional production concentration. However, with the economic development of the two countries and the increase of residents' disposable income, the potential of personal consumption is more apparent, so the B2B model will be difficult to meet people's individual needs. Now, the share of B2C business models in cross-border e-commerce has increased. B2C has become an important link in the modern company's sales system, suggesting that the direct

business relationship between individuals and the end consumer is on behalf of B2B, while Amazon and Ali Express platforms are on behalf of B2C.

1.2 Trends in modern global economy

Low carbon economy is a new development concept proposed in recent years to promote global economic development. The basic characteristics of low-carbon economic development are low emissions, low pollution, and low energy consumption. The proposal of this economic development concept means that human production and consumption are developing towards a more advanced ecological civilization, indicating that countries around the world have reached a consensus on ecological values in the development process. In the future development stage, low-carbon economy is bound to become a new trend and trend in world development. Which country can occupy a leading position in the development of low-carbon economy can seize the commanding heights of future economic development. However, the development speed of the global low-carbon economy is largely influenced by the global climate change negotiation process, so developed countries have been committed to seizing the leading and leading position in the climate change negotiation process in recent years.

In recent years, global climate change has brought enormous impacts and challenges to international trade, greatly intensifying foreign trade frictions and conflicts among countries around the world. Under the influence of international trade, global climate change and ecological environment pollution are constantly worsening, resulting in a shift and change in global environmental pollution. Based on this, the World Trade Organization (WTO) permits the adoption of mandatory or resource-based standards as “green trade technology barriers” for the purpose of protecting the environment. To protect their trade advantages, some developed countries or organizations often set strict technological “green trade barriers” against other countries [3].

As a new way of shopping for goods, it is mainly through the use of computer networks or information technology between merchants and consumers to complete item transactions. Electronic transactions have prompted a change in traditional consumption methods. This model stimulates consumers’ consumption and also encourages businesses to

further improve their services to consumers. With the continuous development of information technology, while e-commerce continues to grow, it has greatly promoted the expansion of enterprise trade scope and greatly affected the development of international economy and trade.

According to Internet World States Data display of website, As of 2023, the global internet coverage rate has exceeded 67.9%, and figure 7 – World Internet usage and population statistic.

WORLD INTERNET USAGE AND POPULATION STATISTICS 2023 Year Estimates						
World Regions	Population (2022 Est.)	Population % of World	Internet Users 31 Dec 2021	Penetration Rate (% Pop.)	Growth 2000-2023	Internet World %
<u>Africa</u>	1,394,588,547	17.6 %	601,940,784	43.2 %	13,233 %	11.2 %
<u>Asia</u>	4,352,169,960	54.9 %	2,916,890,209	67.0 %	2,452 %	54.2 %
<u>Europe</u>	837,472,045	10.6 %	747,214,734	89.2 %	611 %	13.9 %
<u>Latin America / Carib.</u>	664,099,841	8.4 %	534,526,057	80.5 %	2,858 %	9.9 %
<u>North America</u>	372,555,585	4.7 %	347,916,694	93.4 %	222 %	6.5 %
<u>Middle East</u>	268,302,801	3.4 %	206,760,743	77.1 %	6,194 %	3.8 %
<u>Oceania / Australia</u>	43,602,955	0.5 %	30,549,185	70.1 %	301 %	0.6 %
<u>WORLD TOTAL</u>	7,932,791,734	100.0 %	5,385,798,406	67.9 %	1,392 %	100.0 %

Figure 7 – World Internet usage and population statistic [23]

Throughout the regions of the world, the total number of Internet users in the world, the Internet coverage of 54.9%, except North Korea, in Myanmar, Uzbekistan and Afghanistan; North America is the highest Internet coverage in the world, reaching 93.4%, exceeding the Internet coverage in Europe [8]. The Americas are second only to Europe in Internet coverage, More than half of the countries' Internet coverage rate has reached more than 70%, Among them, the coverage rate of Bermuda Islands and Falkland Islands is close to 100%; Latin America has the third largest Internet in global coverage, Oceania due to geographical location constraints, The number of Internet users and network coverage in some islands is low, Despite the low number of users and network coverage in Africa, But it has already achieved a more than 100-fold increase from 2000, The growth momentum is rapid, Countries in the country, such as Yemen, Iraq and Syria, in the Middle East have low

network coverage, To some extent, it has pulled down the of the Internet coverage rate in the Middle East [67].

The development of e-commerce in some typical countries. The desktop and mobile traffic on global e-commerce platforms decreased by 5% year-on-year. Among the countries with the largest traffic volume, only three countries have shown positive growth, namely the United States, Japan, and the United Kingdom (figure 8).

Top 10 countries for marketplaces by total traffic volume in 2022

Desktop & mobile web, Jan-Dec 2022 vs. 2021

Country	Traffic Share	Visits 2022	Traffic growth YoY	Inflation YoY
United States	24.13%	49.40B	-5.76%	6.41%
Japan	8.66%	17.73B	-4.01%	4.00%
Russia	5.93%	12.14B	20.29%	11.80%
China	5.75%	11.78B	-11.12%	2.10%
Brazil	5.25%	10.75B	-8.80%	5.77%
India	5.21%	10.67B	7.19%	6.50%
United Kingdom	4.93%	10.10B	-15.74%	10.05%
Germany	4.59%	9.39B	-9.89%	8.70%
Indonesia	2.85%	5.83B	4.78%	5.28%
Turkey	2.29%	4.69B	-7.27%	57.68%

Figure 8 – Marketplaces by total traffic volume in 2022 [33]

The Russian market has highlighted the highest traffic growth rate, In March 2022, the Russian government began allowing retailers to bypass manufacturers and import overseas products, allowing e-commerce companies to purchase goods from intermediaries in neutral or friendly third-party countries. The online traffic of e-commerce platforms in the country also increased by 20% year-on-year, due to concerns among Russian consumers about supply chain issues and the early downward trend of the ruble exchange rate, which led to panic buying.

Among the top 100 online platforms with high global traffic, only 44 showed a year-on-year growth trend in 2022. With rising prices and the return of the physical store shopping boom, the number of online visits in 2022 was 673 million, compared to 713.3 million in 2021. The Russian e-commerce platforms Ozon and Wildberry have become exclusive to e-

commerce consumers in 2022. During regional conflicts, Western platforms stopped trading in Russia, and the popularity of Russian platforms naturally increased (figure 9).

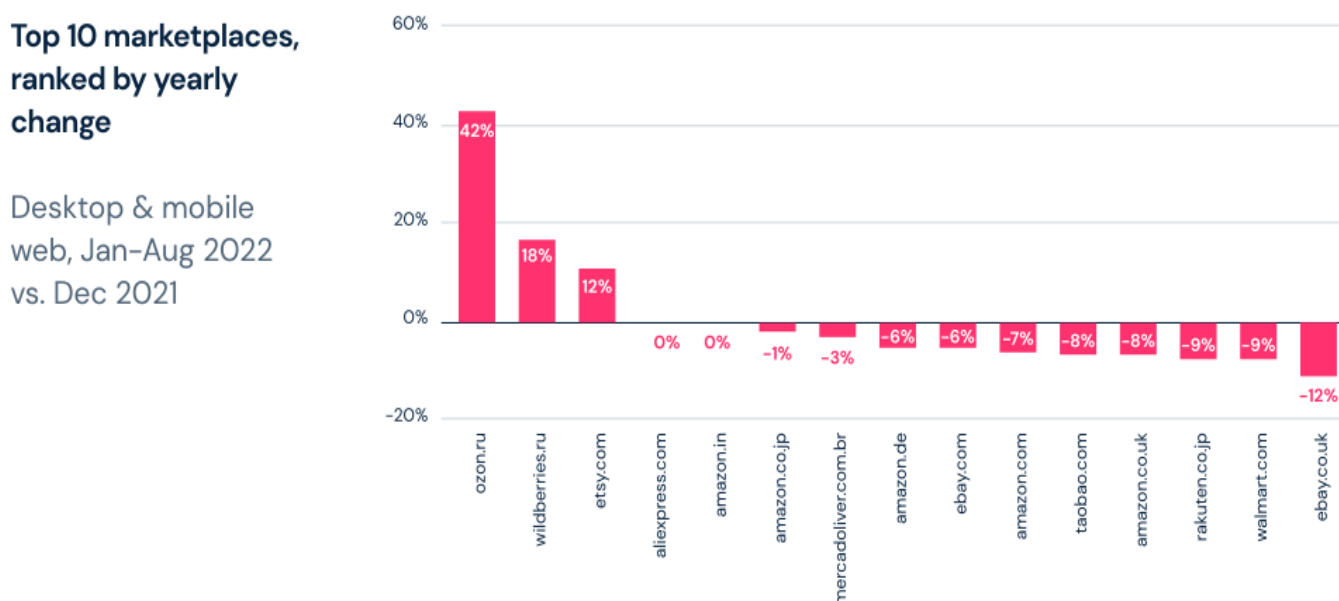


Figure 9 – Global overview of the top players [67]

Compare the three major e-commerce markets: the United States, China, and Europe. In 2021, the added value of the digital economy accounted for nearly 40% of the country's GDP. More than a quarter of China's retail sales of physical goods are sold online, far above the global average of 18.8%, China is the largest market in 2023.

Accelerate the creation of the “Silk Road E-commerce” cooperation pilot zone in the face of complex and ever-changing international environment, and continuously expand the space for international economic and trade cooperation; Cross border e-commerce promotes the globalization of Chinese manufacturing, effectively ensuring the stability of the global industrial and supply chains. At the same time, with the rapid development of the economy, China and Russia have become increasingly important trading partners, among which e-commerce plays an increasingly important role in the process of Sino Russian economic and trade cooperation. In the future, e-commerce will continue to enhance the resilience of the two countries' economic development, serve to build a new development pattern, and play a greater role in achieving high-quality development.

The e-commerce market has evolved from a simple counterpart of brick-and-mortar retail to a shopping ecosystem involving multiple devices and store concepts. Now, we are dealing with a relatively mature e-commerce market, with mature players and a clear set of rules. But it could also be misleading about the digital transition, driven by the growing cash flow of many start-ups and fast-growing Asian economies. Despite the slowdown in China's economy, the global economy has shifted from the United States and Europe to China and Southeast Asia, with increasing purchasing power and Internet penetration, and more and more consumers are gaining e-commerce. Therefore, for the business operators of different countries and different regions, they should rationally analyze and treat e-commerce correctly, establish an appropriate risk estimation and value evaluation system, and explore the important value of e-commerce in economic globalization.

To sum up, The future development trend of e-commerce has a certain potential, at the same time facing different opportunities and challenges, can through offline “Belt and Road” to promote the development of national economy in various fields, also can through the “Silk Road Electricity” international cooperation, perfecting cooperation mechanism, cooperation continues to expand, strengthen the diversification of cooperation, become to build “Belt and Road” national share market opportunities, expand the important measures of digital economy cooperation, to build “Belt and Road” high quality development, promote national consumption upgrade make a positive contribution.

Chapter 2 Influence of e-commerce in development of modern global economy

2.1 Positive of e-commerce in development of modern global economy

With the transformation of global economic carriers, consumers are gradually shifting from traditional physical purchasing power to electronic purchasing power, which symbolizes significant changes in society in terms of technology, culture, resources, ideas, and other aspects [29]. The global economy has entered a new economic era, which can also be said to be the digital economy. The digital economy takes data resources as the key element, modern information networks as the main carrier, information and communication technology integration and application, and full factor digital transformation as important driving forces, promoting fairness and efficiency to be more unified, while also changing the trade patterns between countries. This change overcomes the limitations of traditional international trade models and optimizes trade management [39]. Although the traditional international trade model promotes the conversion of resources and the improvement of economic and cultural development among countries to a certain extent, there are still problems such as cumbersome contract procedures, high labor costs, long time costs, and trade barriers.

E-commerce, as a product of the new economic era, provides the possibility to expand the international trade development market, innovate new industry opportunities, and improve business interactions. In response to this, major relevant enterprises must clarify the application advantages brought by e-commerce, actively build a scientific and reasonable e-commerce information management system, in order to promote the smooth development of business interaction processes [29]. E-commerce belongs to a public and open form of business vouchers. In the specific application process, mainly based on the Internet platform, the breakthrough impact on traditional international trade is achieved through various business interactions. The purpose and goals of a “Green” economy have opened up new markets for the development of e-commerce. Conducting economic activities at the national and global levels not only changes the industrial chain, but also lays the foundation for the development of e-commerce systems and investment factors [10]. The

negative impact of existing economic models on social living standards, poverty, and unemployment, as well as prosperity and welfare, will affect the health and social development of any country. Such as strengthening the effectiveness of commodity circulation and expanding the development space of enterprises. Based on current practical results, this transaction model often serves the purpose of promoting communication between enterprises and users, and is conducive to creating a win-win situation between enterprises and users.

Although e-commerce can save costs such as manpower, material resources, and financial resources compared to traditional trade models, everything has a dual nature. In the current mature application of e-commerce, there are still some uncontrollable factors in the widespread use of e-commerce, leading countries to gradually standardize their development system in the development of e-commerce. For example, China has established the “Electronic Commerce Law of the People’s Republic of China” to regulate the behavior of merchants and consumers. The Russian State Duma plans to introduce an electronic commerce regulatory bill and revise the “State Supervision Principles for Trade Activities in the Russian Federation” and the “Consumer Rights Protection Law” to regulate the relationship between platforms, sellers, and retail stores, and improve the regulatory system of the e-commerce industry [62]. Although e-commerce can position and analyze various business information, in the process of analyzing actual products, it does not truly position and analyze according to customer needs. If customers are not satisfied with the actual product, e-commerce will face many problems, such as returns, exchanges, and even appeals [56].

Therefore, as a product of the new economic era, e-commerce has the characteristics of the Internet and itself at some levels, such as high risk, information sharing, real-time interaction, etc. [38]. Although there are many shortcomings in traditional international trade from an objective perspective, this does not mean that traditional international trade should be eliminated. That is to say, in order for e-commerce to achieve long-term and sustainable development, it should rationally combine traditional international trade with new e-commerce, promote the efficiency and quality of e-commerce development.

The development of e-commerce has provided more trade channels for foreign trade enterprises around the world, while also improving their competitiveness, thereby enabling foreign trade enterprises to occupy a larger market share in the international market. However, there are also some problems in the development of cross-border e-commerce, such as the need to improve product quality and logistics distribution [59]. In order to promote its further development, it is necessary to carefully study these issues and formulate corresponding measures, in order to gain more benefits in future international market competition.

We need to note that although e-commerce is gradually entering the right track, due to objective factors such as trade frictions and policy conflicts among countries, as well as the instability of the global economic background, the development of e-commerce has faced both opportunities and challenges. Countries have begun to innovate trade policies, with China's e-commerce live streaming sales moving from domestic to foreign markets, opening up real-time sales in multiple languages. Among them, Guowei electric vehicles have quickly climbed onto various big data platforms, promoting the development of China's manufacturing industry. Under the guidance of the government, Indonesia has begun to develop the digital economy by introducing electronic payments and e-commerce services into the supply chain of small and medium-sized enterprises [25].

However, according to the latest economic outlook report from the World Bank, it is clear that the global economy is in a dangerous state. As interest rates rise, consumer spending and corporate investment will slow down, economic activity will be impacted, the vulnerability of low-income countries will be exposed, global economic growth will significantly slow down, and the stability of the financial system will be threatened.

As shown in figures 10 and 11, we can clearly see that although the global trade volume has shown an overall upward trend in the past 20 years, it has risen slowly, both at about 60% [9]. This is due to the instability of the economic background, the COVID-19 epidemic and the war conflicts between countries. The decline trend of the trade volume is particularly obvious. Only in 2022 will a new trade breakthrough begin, but the overall trade volume will gradually slow down as a proportion of the global economy. The decline of bilateral trade means that global trade will decrease.

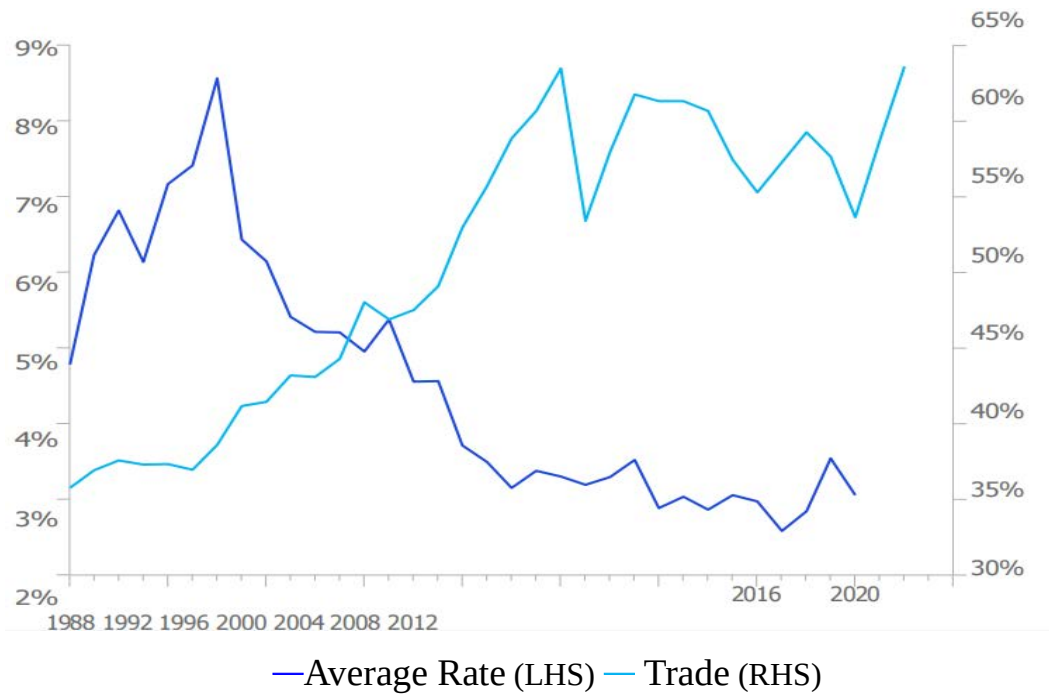


Figure 10 – Global trade and average rate [43]

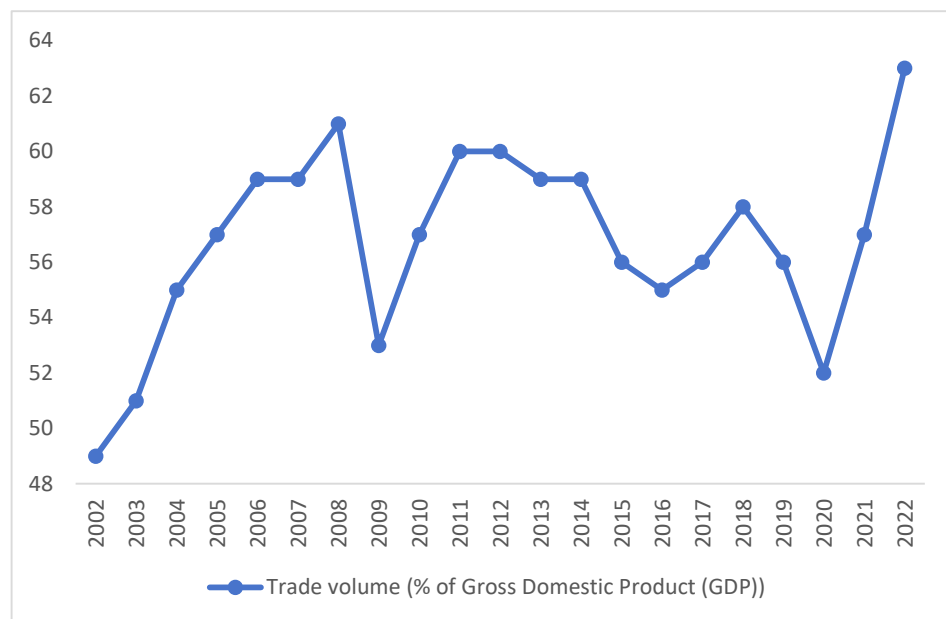


Figure 11 – Trade volume, % of GDP [43]

However, in the short term, trade barriers and restructuring of supply chains may lead to the extension of supply chains and so-called “Triangular Trade” In this trade, countries transferring products to avoid trade barriers will indirectly increase trade, which may make networks more susceptible to supply chain shocks. Therefore, the development of e-

commerce not only promotes the cross-border circulation of goods and services, but also brings new opportunities and challenges to the global economy.

Figure 12 shows main positive aspects of e-commerce.

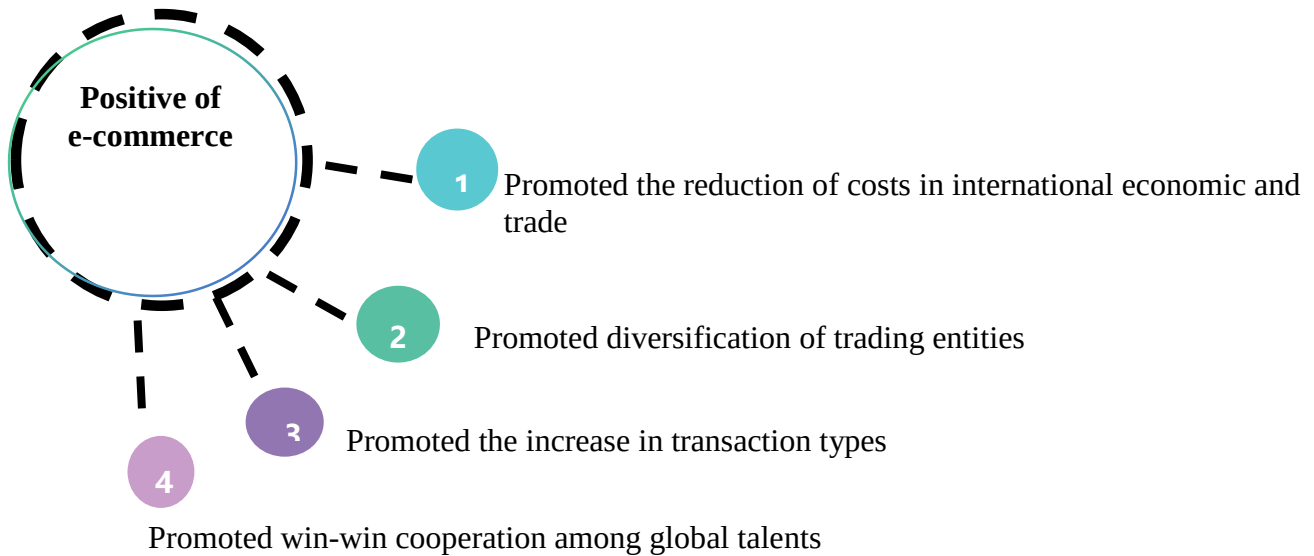


Figure 12 – Positive of e-commerce [made by author]

Promoted the reduction of costs in international economic and trade. In recent years, with the deepening of economic globalization, exchanges between countries have become more and more frequent, and trade exchanges have also increased. Traditional trade methods require multiple face-to-face exchanges and negotiations in cross-border transactions, which increases trade costs. Digital economic transformation can enhance capital and labor productivity, reduce transaction costs, and promote a country's integration into the global market system [21].

As shown in table 2, the foreign trade situation of major economies in 2024 showed a double-digit decline in imports at the beginning of 2024, with the EU decreasing by 13.3%, Japan decreasing by 15.4%, and South Korea decreasing by 11.2%. However, the overall situation in the world has shown a slow upward trend in the foreign trade curve, which is due to the unstable situation in the Middle East, the economic recession in Europe and America, and the slow recovery of the global economy. Meanwhile, the deep application of digital technology can enhance the competitiveness of enterprises and improve their performance.

Table 2 – Foreign trade situation of major economies in 2024, billions dollars [52]

No.	Illustration (month)	2022(billion dollars)	2023(billion dollars)	2024(billion dollars)	Growth rate (%)
1	China(exports1-3)	8109	7956	8077	1.5
2	America(imports 1-2)	5017	5009	5106	1.9
3	EU(imports 1-2)	4844	4773	4139	-13.3
4	Japan(imports1-3)	2175	2135	1807	-15.4
5	South Korea (imports1-3)	1768	1740	1546	-11.2
6	India (imports1-2)	1084	1064	1134	6.6

On the other hand, the deep integration of digital technology and the real economy can accelerate the speed of information dissemination, connect various entities in economic activities, improve resource penetration, integration, and coordination capabilities in the economic system, reduce market transaction and resource allocation costs, and promote resource restructuring and aggregation.

In addition, due to the long trade cycle of traditional trade methods, it greatly affects the operation of the entire enterprise. In the context of the Internet era, businesses carry out international economic trade through e-commerce mode and e-commerce platform, which, on the one hand, reduces the time cost and labor cost; On the other hand, it has also broken the limitations of time and geography, promoting the reduction of international economic and trade costs [24].

Promoted diversification of trading entities. With the emergence of e-commerce, for small and medium-sized enterprises, they can maximize their advantages in structural flexibility in economic and trade, respond accurately and quickly to customer needs in a timely and targeted manner, and meet the needs of a large number of customers. The modern logistics industry is transforming towards digitization, intelligence, and greening. At the same time, the international logistics industry is constantly promoting standardization, collaboration, and sharing development to better ensure the development of international e-commerce. Therefore, the main participants in international e-commerce include multinational corporations, small and medium-sized enterprises, e-commerce platform operators, logistics service providers, etc. [37]. The resource sharing mechanism among partners helps to promote the optimal allocation of logistics resources, reduce duplicate

construction, improve resource utilization efficiency, recruit talents, and actively develop innovative trading entities, in order to achieve win-win cooperation and coordinated development. The selection of cooperative entities in trade transactions is also one of the key factors in achieving trade.

Promoted the increase in transaction types. Traditional economic and trade methods are limited by the flow of information, resulting in a relatively single type of trade transaction that cannot effectively meet the needs of consumers. With the continuous development and improvement of e-commerce, manufacturers can further understand the needs of different consumers, develop targeted products to meet their needs, and promote customer satisfaction. At the same time, it also promotes innovation in goods and services. Through online platforms, global consumers can more easily access new products and concepts from different countries and regions [5].

The rapid rise of e-commerce, supported by modern information technology, has effectively driven the rapid development of virtual enterprises, virtual banks and Internet finance. With online shopping and online transactions as the basic form, both trading parties can conduct online consultation and negotiation through e-commerce platforms. The two trading parties basically do not meet, that is, they can sign online contracts and transfer various ordering information to third-party banks or financial companies to achieve online payment, simplify trade transaction procedures and improve transaction efficiency.

From another perspective, in the context of network information exchange, e-commerce has created a more intense competitive environment. In this environment, manufacturers can timely obtain or understand information about competitors in the same industry. By better enabling manufacturers to accelerate product upgrades and promote the improvement of their own product cost-effectiveness, it can better promote the improvement of consumer quality of life.

For manufacturers, investors, and sellers, the application of e-commerce has promoted the optimization of trading platforms. In today's information market, many companies are also increasingly using e-commerce, and the necessity of e-commerce has become a resilient condition in today's turbulent and unpredictable global market. Most export organizations must deal with various emerging e-commerce digital platforms,

therefore the importance of modern international trade digitization and technological transformation is increasing [60]. The introduction of major e-commerce platforms helps consumers choose their favorite products, digitizes sales data for both buyers and sellers, and makes product information more specific, such as Amazon, Alibaba, OZON, etc.

Therefore, the emergence of e-commerce has enriched the types of transactions, enriched trade channels, saved unnecessary transaction costs, and brought many development opportunities for international e-commerce through innovative service models and expanding business scope (tables 3 and 4).

Table 3 – Top 10 global cross border e-commerce platforms in 2024 [51]

E-commerce Platform	Brand National	Brand Index	Main Operations
Amazon	America	88.6	Books, movies, games
Alibaba	China	87.4	Make small and medium-sized enterprises become multinational corporations
AliExpress	China	86.2	Clothing, home furnishings, accessories
SHEIN	China	85	Women's clothing, clothing accessories, home furnishings
TEMU	China	83.6	Home furnishings, pet products, clothing, shoes and bags, electronic products
TikTok Shop	China	82.4	Clothing, beauty, accessories
Shopify	Canada	81.3	Provide e-commerce sellers with the technology and services to build online stores
ebay	America	80.2	Online auction of items
shopee	China	79	Class II medical devices, Own property leasing and business information consulting
Lazada	China	77.7	Clothing, household appliances, digital products

Promoted win-win cooperation among global talents commerce can not only promote the cultivation and development of domestic talents, but also create a large platform for global talent cooperation and exchange, cultural exchange, and attracting a large number of versatile talents. The desire of people around the world is to unite and form a harmonious and mutually beneficial global village. To accelerate breakthroughs in economic development, human development is an indispensable factor. Therefore, the rapid development of e-commerce requires talents in this field to have the ability to conduct market research and analysis in different countries and regions, understand the consumption

habits, shopping preferences, cultural background and other factors of the target market, in order to formulate corresponding marketing strategies and product positioning [30].

Table 4 –Top 10 brands of world shopping websites in 2024 [50]

E-commerce Platform	Brand National	Brand strength index	Main Operations
Maigoo	China	99.3	Digital electronic and mechanical equipment, Hardware products
Walmart	America	95.1	Medical devices; Daily necessities
SHEIN	China	93.8	Women's clothing, clothing accessories, home furnishings
Shopee	China	89.8	Class II medical devices, Own property leasing and business information consulting
Coupang	South Korea	87.8	Beauty, mother and baby, clothing, tourism products
newegg	China	83.8	IT Digital
TikTok Shop	China	81.9	Clothing, beauty, accessories
Wish	America	79.8	Using an automatic recommendation system based on mathematical algorithms to provide users with personalized low-priced products for lower priced products
Lazada	China	76.9	Clothing, household appliances, digital products
Pinduoduo	China	73.5	Subsidized discounted products, agricultural products from the country of origin, and factory products

Cultivate e-commerce talents with the ability to expand into global markets, identify emerging markets and opportunities, and develop corresponding market entry strategies to promote the connection between the domestic and global economic markets. The consideration of market size, competitive situation, consumer demand, and other factors by talents is to determine the optimal direction for expanding into commodity markets or other economic markets. The global economy involves payments and currency settlements between different countries, so e-commerce professionals need to be familiar with various payment methods and international currency settlement rules, understand and master the operating procedures of payment platforms and international settlement institutions, in order to conduct safe and efficient transactions.

Due to the development of the global economy, it is inseparable from the tolerance of different cultures among different countries, which can best be reflected in human activities.

This reflects the understanding and recognition of values, beliefs, customs, etc. from different cultural backgrounds by talents, and maintains an open attitude, respecting cultural differences, avoiding prejudice and discrimination, adapting to and integrating into different cultural environments, so as to better grasp the development of the target market and help establish better communication and understanding.

2.2 Negative of e-commerce in development of modern global economy

The negative impact of e-commerce is reflected not only in its uncontrollable risk variables, but also in the balance of social supply and demand, labor levels in various countries, and the employment status of men and women (figure 13).

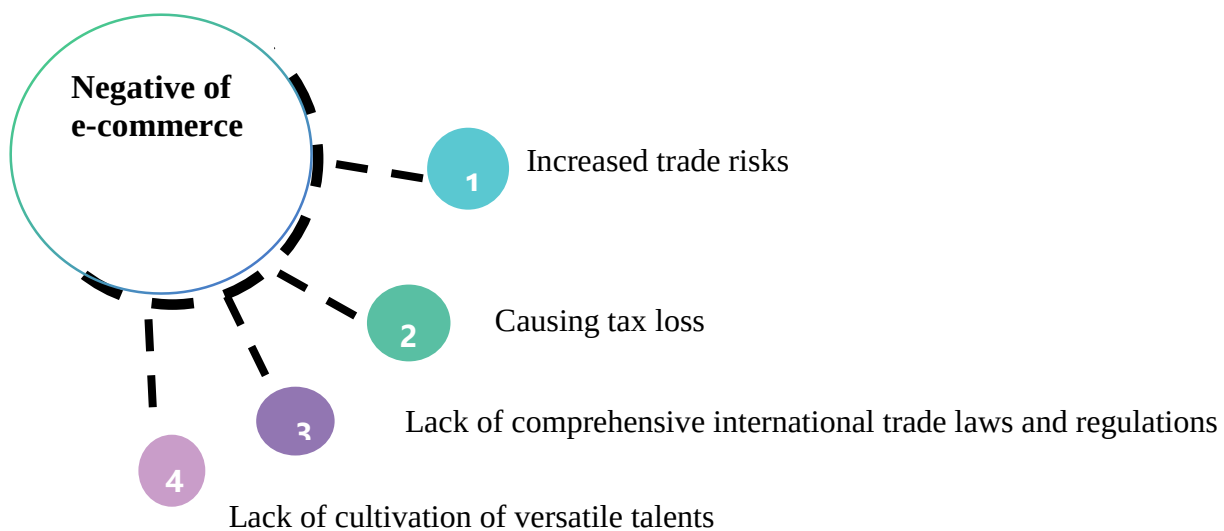


Figure 13 – Negative of e-commerce [made by author]

According to the survey, the unemployment rate and employment gap rate in 2023 are lower than those before the COVID-19 epidemic. The global unemployment rate in 2023 was 5.1%, slightly improving from 5.3% in 2022. Meanwhile, the global employment gap and labor market participation rate have also improved in 2023. In 2024, there will be 2 million new job seekers, leading to a global unemployment rate increase from 5.1% in 2023 to 5.2%. In the G20, the disposable income of most countries has declined. Meanwhile, overall, the decline in living standards caused by inflation is unlikely to recover in the short term. In addition, there are still significant differences between high-income and low-

income countries. In 2023, the employment gap rate in high-income countries was 8.2%, while the employment gap rate in low-income countries reached 20.5%. The unemployment rate in high-income countries remained at 4.5% in 2023, while in low-income countries it was 5.7%. As the main proportion of career labor force, middle-aged and young people can clearly see that the unemployment rate of young people is as high as 13% according to the 2024 world employment trend in figure 14. This indicates the employment difficulties brought about by the rapidly developing society, and also indicates that in the new economic era, people's demand for simple labor force no longer meets the needs of society, and society needs talents who can adapt and provide high service value more.

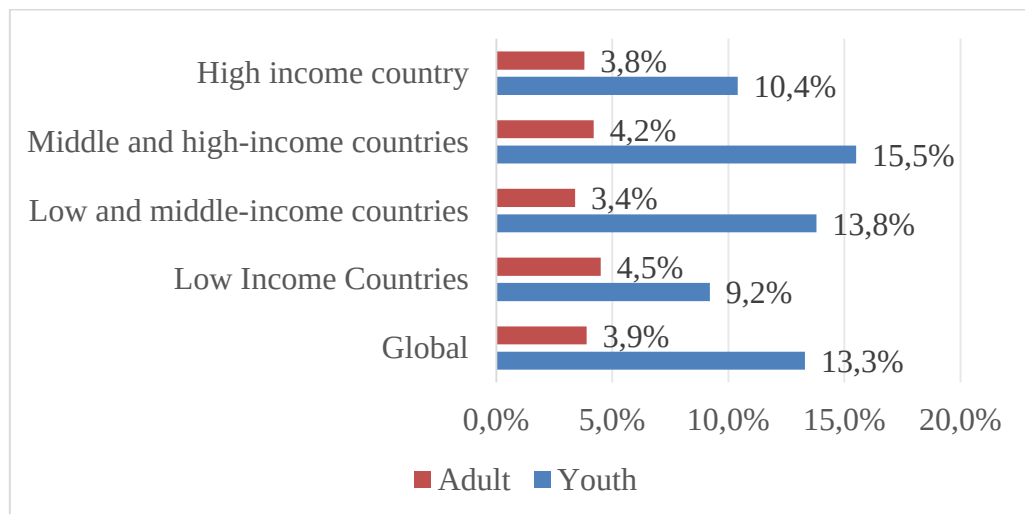


Figure 14 – 2024 World Employment Trends Youth and Recognized Unemployment Rate, % [22]

Increased trade risks. As we all know, there are certain risks in the global economy. The wide application of e-commerce has also increased the risk coefficient of e-commerce, a virtual trade, with the development of the Internet. In the information age, there are increasingly more e-commerce information security issues in society. So in such trade transactions with security risks, how to ensure the risk avoidance of both parties has become an inevitable factor to consider in the development of e-commerce applications. In addition, the reputation of enterprises in the global economy must also be taken seriously. The Internet itself has certain risks, which are very prone to trade risks. Due to the lack of sound laws

and regulations on e-commerce sales, it has greatly increased the risks of international economic and trade.

Until now, international e-commerce still lacks systematic and specialized global goods distribution enterprises. The existing logistics enterprises reflect a dispersed and diversified pattern, leading to problems such as socialized large-scale production, difficulty in leveraging the intensive management advantages of specialized circulation, difficulty in achieving economies of scale, and low facility utilization. The huge cost and time delay of long-distance transportation or postal delivery of goods are enough to deter consumer groups. In many discussions about e-commerce, almost all theoretical discussions have adopted an evasive attitude in this regard, but in practical operation, this issue is fatal. One of the fundamental reasons why the “online speculation” behavior of opening stores online to sell things and hoping to make some profit through e-commerce in the past has ended in a complete failure is that it cannot meet the basic requirements of consumers in terms of waiting for the delivery time and cost of ordered items.

According to the 44th Statistical Report on the Development of Internet in China released by China Internet Network Information Center (CNNIC), about 74.8% of China's Internet users conduct online shopping through online network platforms [28]. However, the problem of selling counterfeit goods on e-commerce platforms is constantly emerging. At the same time, it is technically difficult to authenticate the identities of consumers and merchants on both sides of the trade. In order to protect the rights and interests of consumers and merchants, real name authentication for virtual transactions is particularly important. Some users with high privacy concerns initially do not identify with e-commerce platforms and pay close attention to and protect the personal privacy information of all users. Therefore, the perceived level of risk is higher than others.

E-commerce quickly enters the market at low prices, forcing the upstream industry chain to sacrifice quality and reputation to produce a large number of counterfeit branded goods, counterfeit goods, and other goods. Online shopping platforms have also developed rapidly, and the existence of a series of problems such as inadequate supervision of transaction capital flow has greatly affected the healthy development of international economic and trade, increasing trade risks. However, the proliferation of counterfeit goods

is not a product of the development of e-commerce itself. Its root cause lies in the low level of attention paid by the government and enterprises to e-commerce, incomplete relevant laws and regulations, and an imperfect government regulatory system.

Causing tax loss. Any transaction requires paying a certain amount of taxes to the country. However, in the process of international transactions, due to regional and national policy differences, some enterprises try their best to evade taxes through various means in national economic and trade transactions, and even seek legal loopholes to evade taxes. Due to various factors, relevant departments are unable to timely understand or grasp the profits of trading enterprises, and cannot scientifically collect taxes on their trade, which increases the difficulty of tax supervision and leads to many trading enterprises taking advantage of this opportunity to evade taxes, lose international economic and trade taxes, and damage national interests [33].

The personal situation of consumers leads to tax loss. In reality, many consumers choose to shop through online channels such as online stores, with a relatively high proportion being young people, often because these young people have a deeper understanding and use of the internet. Although many consumers hope to enjoy more affordable prices, they often overlook the tax issues involved. In the process of online shopping, many merchants may overlook the issuance of formal invoices and other behaviors. As a result, consumers do not contribute to the relevant taxes and fees when purchasing goods, which leaves a huge hidden danger for tax loss.

Inadequate tax management leads to tax revenue loss. In the issue of e-commerce tax revenue loss, tax management is a very important link. In this regard, government departments need to thoroughly understand the characteristics and business models of the e-commerce industry, narrow the tax gap, and reduce tax losses. At present, tax management is still relatively extensive, which has led to many e-commerce platforms being able to avoid taxes by offsetting value, which poses serious risks to the normal collection of taxes.

The export tax rebate of cross-border e-commerce leads to tax loss. In the actual operation process, due to the requirements of overseas merchants, many e-commerce companies will disguise themselves as overseas merchants to exercise policies such as

export tax refunds. In this way, there is a gap between domestic sales and cross-border market sales, which affects the collection and use of taxes.

According to a research report on the “Going Global” of B2C Cross border E-commerce Platforms released by the Globalization Think Tank (CCG), PayPal found that, taking the B2C transaction model as an example, cross-border e-commerce platforms are mainly located in China and the United States, with approximately 26% of global cross-border e-commerce transactions completed in China, ranking first in the world. According to data from the General Administration of Customs, the size of China's cross-border e-commerce market reached 15.7 trillion yuan in 2022, an increase of 10.56% year-on-year from 14.2 trillion yuan in 2021, and has maintained a high-speed growth rate in recent years. Relevant market analysis estimates that over 50% of foreign trade will be achieved through cross-border e-commerce by 2035 [64].

From this, we can clearly perceive that the amount of e-commerce transactions is extremely large, and most of them belong to virtual transactions. Payment is made through electronic banking, and the process of holding them accountable is relatively complex. Due to the large amount, the phenomenon of tax evasion by enterprises and some merchants is particularly obvious, and tax loss has become a sword that hinders national development, which is harmful to the overall development of the country.

Overall, the problem of e-commerce tax loss is not only about condoning consumer tax evasion, but also involves many aspects such as e-commerce operators and tax management departments. Although the government has introduced multiple preferential policies and incentives to encourage the development of e-commerce, more detailed policy adjustments and improved tax management mechanisms are still needed to reduce tax losses and related economic risks. At the same time, it is even more necessary to guide consumers to consciously pay taxes, exercise their own obligations, and approach green taxation with a true and honest attitude.

Lack of comprehensive international trade laws and regulations. Currently, Western countries have established a set of international economic and trade policy and legal regulations in the development of e-commerce. However, some countries started relatively late and have some backwardness, without involving issues such as hyperlink infringement,

signature, and domain name rights in e-commerce. This requires relevant government departments to strengthen cooperation with the financial services sector, commodity circulation industry, and information industry based on actual conditions, and formulate corresponding laws and regulations in a targeted manner to constrain international economic and trade under e-commerce through laws and regulations [7].

There is a significant gap in the construction of digital economy infrastructure among countries around the world, in addition to existing international trade laws. The report “Measuring Digital Development: Facts and Figures 2023” released by the International Telecommunication Union (ITU) shows that in terms of global 5G network coverage, the network coverage rates in Africa, the Americas, Arab countries, and the Asia Pacific region are 23%, 59%, 17%, and 42%, respectively (figure 15). In addition, the development of digital infrastructure is also uneven among different countries within the same region. In Africa, the Internet usage rate in South Africa has reached 50%, while in some African countries it is only about 10%.

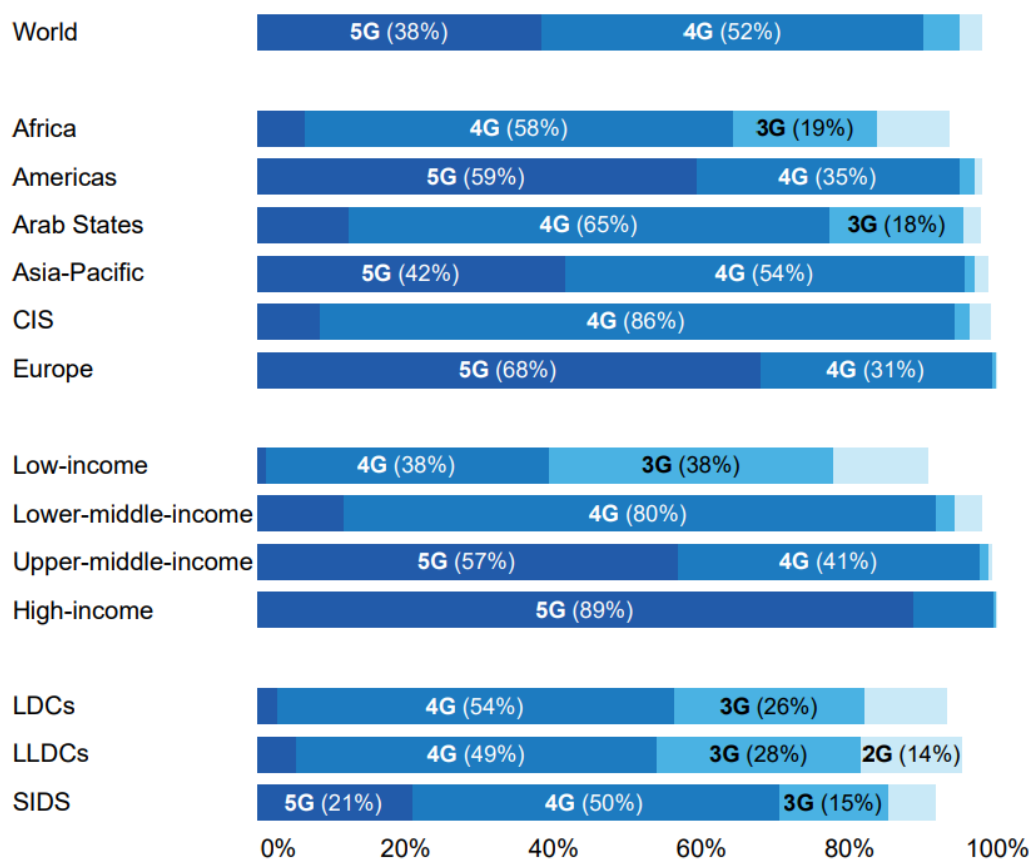


Figure 15 – Population coverage by type of mobile network, 2023 [27]

This leads to imbalanced global economic development, the inability to regulate defaulting e-commerce behaviors with unified national economic and trade policies, and can also cause hidden trade conflicts between countries. Therefore, it is urgent and necessary to establish reasonable and compliant e-commerce regulations in international economic and trade, in order to prevent cross-border e-commerce sellers from not strictly controlling the quality of goods according to relevant standards during the sales process, resulting in some counterfeit and inferior goods entering the market and damaging the rights and interests of consumers [27]. Whether it is tariffs, consumer rights, product quality, monetary system, or corporate attributes, there should be clear rules and regulations to restrict deviant behavior in e-commerce.

Lack of cultivation of versatile talents. With the rapid development of e-commerce trade, it has gradually exposed serious problems such as a shortage of comprehensive e-commerce talents. E-commerce is gradually moving from localization to globalization, so there is a lack of concentration of e-commerce talents in the first language. Currently, talents engaged in cross-border e-commerce mainly come from traditional foreign trade industries, but English majors are predominant. E-commerce talents in some small languages such as German, Russian, and Spanish are lacking. Secondly, high ability requirements are required. Talents engaged in cross-border e-commerce business should be able to understand foreign markets, transaction methods, culture, consumption habits, customs, and traditions, etc. Thirdly, it is difficult to master the trading rules and characteristics of various platforms proficiently. At present, mainstream cross-border e-commerce platforms such as AliExpress WISH and eBay have complex rules and are constantly changing.

On the other hand, companies generally believe that the majority of graduates have the following shortcomings; Lack of craftsmanship spirit, teamwork spirit, lack of solid professional knowledge, weak hands-on ability, and weak ability to think and solve problems. E-commerce itself has high requirements for the comprehensive quality and ability of talents, in addition to being proficient in international trade related matters and related foreign languages. On this basis, special technologies related to big data are also needed to effectively process large amounts of data. Such as large-scale parallel processing, databases, data mining, distributed file systems, distributed databases, cloud computing

platforms, the Internet and scalable storage systems. At present, there is a significant gap in versatile talents who combine these three strengths, and they lack practical abilities.

In summary, the e-commerce market has evolved from a simple counterpart of physical retail to a shopping ecosystem involving multiple device and store concepts. Now, we are facing a relatively mature e-commerce market with mature participants and a clear set of rules. But it may also lead to misleading digital transformation bias, driven by the growing cash flow of numerous startups and rapidly developing Asian economies. Despite the slowdown of China's economy, the purchasing power of the global economy has shifted from the United States and Europe to China and Southeast Asia. The purchasing power and Internet penetration are growing, and more and more consumers have access to e-commerce. Therefore, for business operators from different countries and regions, they should analyze and treat e-commerce rationally and correctly, establish appropriate risk estimation and value evaluation systems, and explore the important value of e-commerce in economic globalization.

Chapter 3 Countermeasures and suggestions for e-commerce in development of modern global economy

3.1 Standardize the operating mechanism of e-commerce

Through the above research, it is evident that e-commerce plays a double-edged sword role in business. In the process of the entire society, the development of e-commerce not only signifies the effectiveness of new products in human society, but also signifies the flourishing development of the digital economy. Through big data analysis, e-commerce has its own operating platform, which can deeply understand consumer behavior habits, preferences, and needs, accurately recommend products suitable for consumers, provide personalized customization services, and improve user experience. Secondly, in the operation process of merchants, cloud computing provides elastic storage and computing resources for e-commerce, allowing for flexible adjustment of server capacity based on demand, ensuring website stability and reliability, and responding to continuously growing user and order volumes.

While e-commerce promotes international economic and trade development, it also comes with some challenges. On the one hand, the globalization and informatization characteristics of e-commerce have also made international trade more complex, bringing a series of risks and problems. For example, regulatory challenges in cross-border e-commerce and issues related to intellectual property protection. On the other hand, the personalized characteristics of e-commerce may also lead to market differentiation and unfair competition, such as excessive use of intelligent algorithms and unfair evaluation standards [48].

E-commerce has become an important component of modern commerce, and future e-commerce will become more mobile, personalized, social, and intelligent. In international trade, e-commerce is increasingly recognized by more and more companies, and many virtual companies have emerged to provide products or services for the global market [57]. These virtual enterprises search for resources through dynamic networks, which can better

match the constantly changing market competition environment and the personal needs of constantly changing consumers.

Global e-commerce transactions have a transaction volume of billions of dollars and are constantly increasing, leading to rapid development of international economic and trade in the e-commerce environment. How to make international economic and trade steadily grow in the e-commerce environment has become a problem that people must face [55].

Enterprises need to constantly innovate and improve service quality in order to remain invincible in the e-commerce market. E-commerce has overturned the traditional operation of trade, effectively reduced transaction costs and market access barriers, improved transaction efficiency and transparency, and provided enterprises with broader international market opportunities, enabling them to occupy a more competitive position in the international market. But it also brings too many risks and drawbacks to the entire trade process, such as tax loss, lack of sound international trade laws and regulations, lack of cultivation of versatile talents, and increased trade risks. So, how to avoid these problems and propose several countermeasures and suggestions.

E-commerce is rapidly developing in the context of world trade cooperation during its operation. In the international development perspective of EU economic integration, the development of Asia Pacific economic integration is imperative. By increasing international economic connections, it can resist international financial risks and improve the stability of regional economic development. In the resolution of the APEC Summit, the Asia Pacific Free Trade Process was launched to gradually promote the integration of Asia Pacific economic development [14]. However, there is still a risk of operational mechanism lag, which means conducting reasonable risk control and management on user website browsing behavior, purchase and registration information, payment gateway feedback information, fraud blacklist, and risk pattern identification.

E-commerce has universality and covers the world's trade chain. However, due to the uneven development of the world economy, with high prices in the south and low prices in the north, different economic development rates between developed and developing countries, different resource richness between countries, and different completeness of legal systems between countries, there are obvious differences. Therefore, the development of e-

commerce requires a measurement standard to measure the fairness and coexistence of prices, manpower, resources, and other inputs and outputs among countries, which makes regulating the operation mechanism of e-commerce an indispensable consideration factor.

Figure 16 shows that high-income groups are concentrated in European countries such as the United States, Australia, and Canada, upper middle income groups are concentrated in countries such as China, Russia, and Brazil, lower middle income groups are concentrated in Middle Eastern countries such as India, Iran, and Egypt, and low-income groups are concentrated in African countries such as Congo and Sudan.

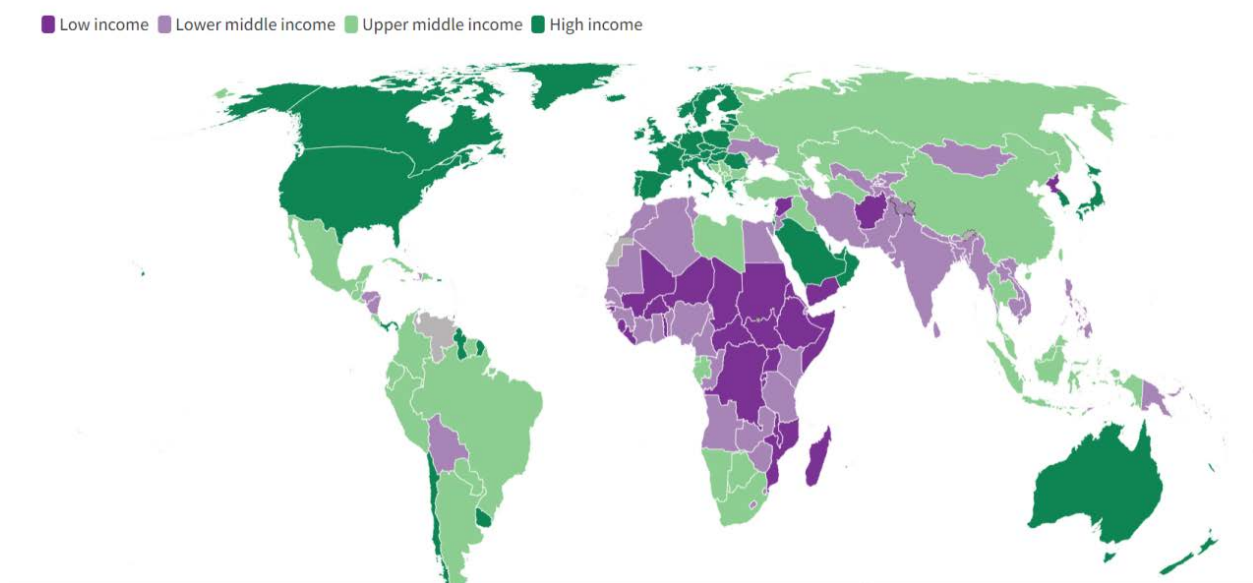


Figure 16 – Distribution of World income [46]

Therefore, economic growth in middle-income countries needs to face challenges. According to the World Bank's income classification, the world currently includes 26 low-income economies, 108 middle-income economies, and 83 high-income economies [46]. Middle income countries account for approximately 75% of the world's population, currently accounting for approximately 40% of global economic activity, 50% of the world's extreme poverty population, and 60% of global carbon dioxide emissions. The global economic imbalance poses certain challenges to the standardization requirements of e-commerce norms.

So it is particularly important to improve the tax and regulatory system of e-commerce. One is that countries should strengthen international cooperation to unify relevant tax laws, regulations, and standards, and reduce the diversity of tax rules [17]. This helps to reduce the opportunities for enterprises to use tax differences for tax avoidance. Suggest establishing a cross-border cooperation mechanism to promote the sharing and exchange of tax information among countries through international organizations, in order to better regulate cross-border e-commerce activities. This cooperation can improve the efficiency of tax management and reduce tax evasion.

Secondly, the regulation of e-commerce also needs further improvement. The virtuality and liquidity of cross-border e-commerce have increased the difficulty of regulation. Therefore, the international community needs to strengthen cooperation between multinational regulatory agencies and establish a more effective regulatory system. Countries should share information on e-commerce enterprises, track their activities, and identify potential misconduct. It is recommended to establish international standards and regulatory frameworks to ensure that countries can regulate activities in the field of e-commerce in a consistent manner. This will help improve regulatory transparency and consistency, and reduce regulatory loopholes.

In the e-commerce environment, international trade requires both core technological support and systematic institutional guarantees. E-commerce is still in its early stages and not perfect, which is also a key difference between developed and developing countries. Therefore, the current regulatory system and laws and regulations cannot completely solve the security issues in trade. The biggest feature of e-commerce is the virtualization of business operations. When participating in business and transaction activities, both parties may not engage in on-site transactions, and the parties involved in the transaction may not be familiar with each other's credit. Some companies may fabricate false data, leading to illegal activities such as commercial fraud [65]. Therefore, there may be an issue of economic default. This is mainly because in the e-commerce environment, the information security mechanism is not perfect enough. In this environment, important financial information of a company may be stolen by hackers, resulting in data loss and irreparable economic losses.

The development of the global economy is gradually accelerating under the drive of e-commerce, but there is also an unstable development situation. Over the years, policy makers have begun to study and regulate the development of e-commerce, and global economic and trade organizations and countries have also begun to improve e-commerce regulatory measures.

The first legal document in the world to comprehensively establish norms for the operation of e-commerce is the Digital Signature Law. The digital signature algorithm relies on public key encryption technology for implementation. In public key encryption technology, each user has a pair of keys: a public key and a private key. The public key can be freely released, but the private key is kept secret; Another requirement is to make it impossible to calculate the private key through the public key.

On December 24, 2022, the E-commerce Law was enacted in Tajikistan. This law reflects the regulation of public relations in the field of e-commerce, aiming to protect the rights and legitimate interests of citizens and legal entities, and provides for ensuring the free operation of e-commerce. It will initiate knowledge and resource exchange between Tajikistan's small and medium-sized enterprises and the global e-commerce ecosystem; Promote policy dialogue to establish drivers of e-commerce, including digital connectivity, logistics connectivity, digital skills, payment systems, and regulatory frameworks.

The Chinese government has continuously improved the network transactions and logistics standards for the development of e-commerce, and relevant laws and regulations are also adapting to social issues to regulate e-commerce behavior more strictly. The legal provisions on e-commerce are as follows (table 5). It is evident from this that the improvement of the law requires a lot of practical experience and the joint efforts of stakeholders. Relevant departments must strengthen the security supervision of online trading platforms and minimize the security risks caused by intentional attacks by hackers during the online trading process [48]. Specifically, it is necessary to establish a scientific and reasonable defense system to resist the invasion of hackers and computer viruses, and ensure the security of e-commerce systems. The country should introduce corresponding laws and policies to optimize and regulate the Internet from the legal level, so as to create a safe and harmonious network environment for e-commerce transactions.

Table 5 – Chinese e-commerce regulations and norms [48]

Department	Name	Time
General Office of the State Council	Several Opinions on Accelerating the Development of E-commerce	2005.01
Ministry of commerce	Guiding Opinions on Online Transactions (Draft for Soliciting Opinions)	2006.06
Ministry of commerce	Guiding Opinions on Online Transactions (Provisional)	2007.03
Ministry of commerce	Opinions on Promoting the Standardized Development of E-commerce	2007.12
Ministry of commerce	Specification for E-Business Model	2008.04
Ministry of commerce	Opinions on Accelerating the Development of E-commerce in the Field of Circulation	2009.11
SAIC	Interim Measures for the Administration of Online Commodity Trading and Related Service Behavior	2010.06

Regarding the credit risk issues in e-commerce transactions, relevant departments should take the lead in establishing third-party credit evaluation institutions, actively coordinating with the industrial and commercial tax departments, and establishing a sound integrity system. The reputation of foreign trade companies can be monitored in real-time by departments such as industry and commerce, banks, and taxation, including tracking product quality and verifying reputation levels. This further improves the credit system between banks and import and export units, expands channels for understanding the credit situation of enterprises, and reduces the risk of receiving and receiving goods in transactions.

At the same time, the protection of information security is particularly important for the entire operation process of e-commerce. In today's world, the prevalence of mobile clients is over 90%, and each mobile end is a huge electronic information database. However, for commercial information databases, it is necessary to standardize the e-commerce information database. This standardization is not a one size fits all approach, but fully utilizes personalized and local conditions.

As one of the three major elements of human social life, information has gradually become an indispensable part of people's daily life with the development of society and the arrival of the information age. However, with the popularization of Internet applications, people are enjoying the convenience brought by the network while facing the threat of information security. The continuous acceleration of economic globalization has promoted

the increase of domestic consumption demand, and cross-border e-commerce has also developed rapidly, with a large number of cross-border e-commerce platforms including Amazon, Tmall Global, and JD International emerging. According to the Statistical Classification of Digital Economy and Its Core Industries (2021) released by China in May 2021, it is clearly pointed out that the digital economy is a series of economic activities that use data resources as key production factors, modern information networks as important carriers, and the effective use of information and communication technology as an important driving force for efficiency improvement and economic structure optimization [61].

The global large-scale cross-border e-commerce platform has built a world user network of cross-border e-commerce operators through cross-border transmission and processing of data via the Internet. However, the development of cross-border e-commerce business means that cross-border data flow has become the norm, which has a profound impact on national security, industry security and personal privacy security [16].

The development of the Internet industry has contributed to the prosperity of the e-commerce industry, and the arrival of the big data era has caused the crisis of data leakage. Throughout the entire lifecycle of cross-border e-commerce activities, a large amount of data flows through networks and platforms to various parts of the world, interweaving into a tight data network. Without cybersecurity, there can be no national security, and unstable economic and social operations will lead to difficulties in safeguarding personal interests. E-commerce operators must comply with legal norms, improve their technological means, and assume social responsibility while collecting and utilizing information and data. With the advent of the big data era, data review and compliance have become increasingly important regulatory priorities. Some national security and personal privacy issues involved in data collection, use, management, and circulation have even reached the bottom line of the law.

The Chinese government has issued the Data Security Law and the Personal Information Protection Law, ushering in a new era of regulation of data activities and protection of personal information. Data and information security will also be more comprehensively protected, and the data and information security issues of individual users will receive more attention from regulatory authorities. This is the foundation for global e-

commerce to keep up with the times and do a good job in data compliance, as well as a necessary condition for connecting countries to protect information. The global e-commerce industry has developed rapidly in recent years, with both transaction data and user data exploding and circulating between different sovereign countries.

The Data Security Law (June 2021) clarifies the security protection obligations of enterprises in carrying out data processing activities, including establishing and improving a comprehensive data security management system throughout the entire process; Take necessary technical measures to ensure data security; Conduct data security risk monitoring and disposal measures; Regularly conducting risk assessments; Collect data in a legal and legitimate manner, and collect and use data within the purposes and scope stipulated by laws and administrative regulations, without exceeding necessary limits [66].

The Personal Information Protection Law (November 2021) requires e-commerce platforms to establish a sound personal information protection compliance system when providing system services, embed personal information protection compliance requirements into product lifecycle management, update compliance obligation lists as required, and identify compliance risk blind spots. At the same time, specialized personnel should be appointed internally to be responsible for personal information protection compliance matters, and a data compliance department should be established to improve supporting compliance guidelines and legally safeguard the red line of enterprise data compliance. Due to the trend of international personal information protection's extraterritorial effectiveness highlighted by the Personal Information Protection Law, even if the business premises are overseas, cross-border e-commerce entities engaged in “providing products or services to domestic natural persons” should comply with the provisions of the Personal Information Protection Law to protect all personal information obtained within China.

According to a survey, Asia ranks among the top in the world’s largest e-commerce market. In 2023, the total online retail revenue of Asian countries reached nearly 1.7 trillion US dollars. This is about \$800 million higher than the e-commerce revenue in the Americas. Australia, Oceania, and Africa have much lower e-commerce revenue in 2023, with a value of less than \$40 billion [32]. The leading position in Asia is mainly attributed to China, which achieved over 935 billion US dollars in revenue in 2023.

According to the 2022 Global Payment Report, the current and future payment trends in 41 specific countries or regions worldwide. As the global economy, especially the tourism industry, began to recover from the early impact of the COVID-19 epidemic, global e-commerce grew by 14% year on year, and the transaction volume exceeded \$5.3 trillion. The share of mobile commerce exceeds that of desktop e-commerce, with mobile device transactions accounting for 52% of all e-commerce consumption. Global e-commerce is expected to achieve a compound annual growth rate of 12% by 2025, with a total amount exceeding 8.3 trillion US dollars.

Figure 17 shows that digital wallets accounted for nearly half (49%) of the total global e-commerce transaction volume in 2021, and are expected to account for 53% of the total e-commerce transaction volume by 2025.

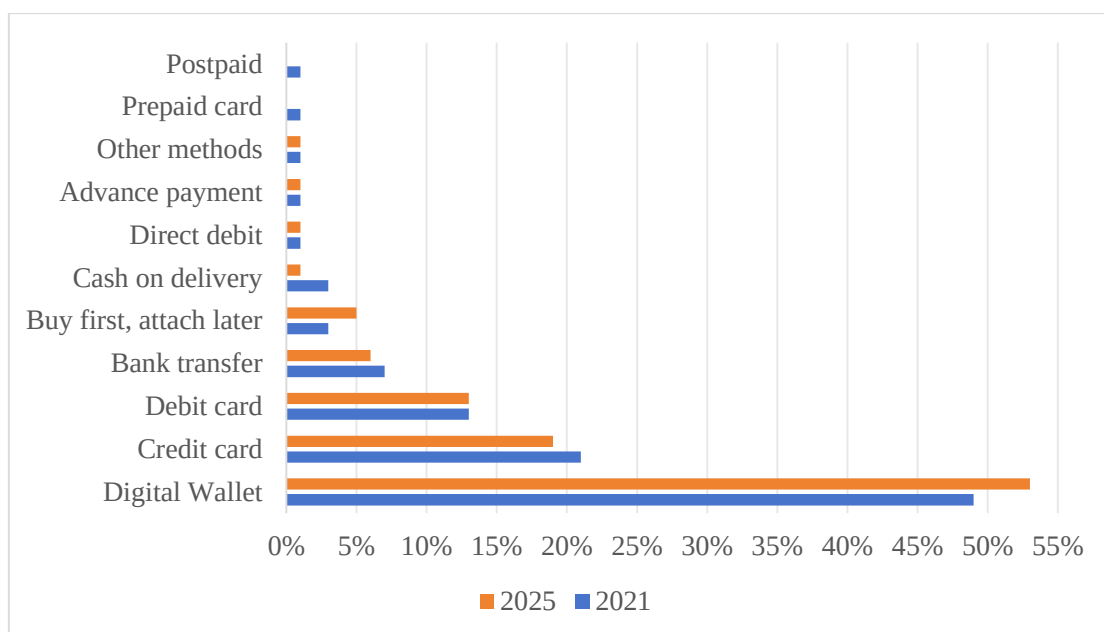


Figure 17 – Global payment method share [32]

The European e-commerce market grew by 11% year-on-year in 2021 and is expected to maintain a compound annual growth rate of 11% until 2025. By 2025, the fastest growing countries are Türkiye (CAGR 25%), Russia (20%), Italy (16%), Spain (13%) and Sweden (15%). During the same period, the annual growth rates of France (9%), Germany (9%), and the United Kingdom (6%), the largest e-commerce markets in Europe, will be more stable.

Digital wallets are the most important payment method for Chinese consumers, accounting for nearly 83% of the total e-commerce transaction volume in 2021. In China, the growth of digital wallets is expected to continue its upward trend, accounting for 86% of the total transaction volume of e-commerce by 2025. In 2021, 92% of digital wallet transactions in the Asia Pacific region came from China. The e-commerce market in China is expected to grow by 55% from 2021 to 2025, reaching \$3.2 trillion – the largest in the world.

The scope of e-commerce is relatively broad, and the transaction amount is becoming increasingly large. The increase in theft of payment details has led to increasing concerns about the security of e-commerce platforms [36]. Therefore, it is necessary to improve the legislation related to e-commerce data information management. Relevant information departments should organize experts and scholars in the industry to communicate and exchange ideas, widely solicit opinions and suggestions from the public, and ultimately formulate laws and regulations suitable for the national conditions of each country. The government should use guiding principles to guide effective electronic information stations, encourage the internal structure of network information, improve the company's information management system, and improve and guide the company's information management system. The application level of company information. Only through legal means can institutional guarantees be provided for foreign trade enterprises to carry out international cooperation. In addition, enterprises should increase their investment in infrastructure, improve their level of informatization, improve their various work processes according to the requirements of informatization, and ultimately enhance the competitiveness of foreign trade enterprises in the e-commerce environment.

3.2 Improve the logistics distribution system

The basic relationship between international logistics and economic globalization is relatively clear. International logistics is a logistics activity that spans across different countries or regions, driven by demand. Economic globalization is one of the important factors driving the generation, expansion, and transformation of international logistics

demand [53]. Economic globalization has spurred economic activities such as cross-border investment, international industrial division of labor, and international commodity trade, resulting in a series of physical flows of raw materials, components, semi-finished products, finished products, and final consumer goods across national borders, thus giving rise to the productive activity of international logistics.

According to table 6 Global Logistics Company Ranking, it can be clearly seen that the lowest revenue on the Global Logistics Top 50 list reached 6.7 billion US dollars, with two companies exceeding 100 billion dollars in revenue. The total revenue of the listed companies reached 1311.085 billion dollars, accounting for approximately 11.78% of the global logistics market. German parcel and warehousing giant DHL Group topped the list with \$105 billion in revenue, while parcel delivery and logistics giants UPS Inc. and FedEx ranked second and third, respectively.

Table 6 – 2023 Global Logistics Ranking [53]

Logistics company	Headquarters	Revenue in 2022 (million dollars)
DHL	Germany	105,768
UPS	America	100,338
FedEx Logistics	America	85,882
Maersk	Denmark	78,722
USPS	America	78,507
CMA CGA	France	75,500
China Ocean Shipping	China	48,944
Kuehne+Nagel	Switzerland	43,464

The economic policy of building the “the Belt and Road” proposed by China is an initiative to the world in the context of the rise of emerging economies and the promotion of global consultation, joint construction and sharing. The construction of the “the Belt and Road” international logistics system inevitably needs the support of China’s comprehensive efforts [58].

China’s maritime transport connectivity index along the “the Belt and Road” ranks first in the world, but it should also be noted that there is network complementarity between China Europe Express and international maritime transport. For example, some train

companies use the Eurasian Continental Bridge to go deep into the mainland to develop sea land intermodal transport service products (as shown in figure 18), which has received good market feedback.



Figure 18 – Trade and logistics route map between a Chinese company and Russia [58]

China Europe Express has become a link in the logistics chain. The port collection and distribution network formed by the development of maritime transport for many years has provided strong support for the expansion of the distribution scope and efficiency improvement of China Europe Express. From January to March 2024, China's total import and export value to Russia was 56.58 billion US dollars, a year-on-year increase of 5.04%. It is expected that the total import and export value to Russia in 2024 will be 250.2 billion US dollars, a year-on-year increase of 4.2%.

Although China has accumulated rich experience in the construction of its domestic logistics system, has a solid industrial foundation, and has formed a huge market scale and an increasingly mature market operation mode, it is unrealistic to rely solely on the market to promote the development of the “the Belt and Road” logistics. It should be backed by the comprehensive strength of the country, and take capital, science and technology as carriers, so that market forces and government level communication and cooperation form a joint force to jointly promote the construction and connectivity of transnational logistics

infrastructure in the region, the unified opening of the logistics market, the innovation of logistics business model and the establishment of logistics rules and systems. Based on the Silk Road, the Maritime Silk Road and the Silk Road on the road have developed relatively steadily. Today, we are also starting to innovate the concept of the Air Silk Road, making the logistics system cover sea, land, and air, and the distribution system increasingly rich.

Improving the e-commerce logistics management system can strengthen the management of logistics in e-commerce, increase payment security, and also improve the logistics network, making e-commerce more in line with usage needs. At present, most enterprises that use the internet for services are supported by third-party platforms and cooperate with multiple payment institutions to increase payment security, reduce the occurrence of fund theft, and increase transaction volume on online trading platforms. In addition, it is necessary to continuously optimize and build e-commerce logistics systems, strengthen logistics management in e-commerce through information technology, ensure the logistics equipment of enterprises, apply the latest technology to the logistics transportation process, maximize time and cost savings in the transportation process, and make international economic and trade more efficient. Secondly, the development of sea and land logistics between countries should be coordinated, countries along the route should be interconnected, technological and model innovation should be strengthened, the e-commerce logistics rule system should be unified and improved, and economic corridors should be built along the corridor [1].

In the context of the digital intelligence era, logistics distribution systems are internet-based, and people have adapted to the existence of the Internet. Someone should call the Internet a new type of “drug”, but there have been quite a lot of suggestions about the use of the Internet. Whether e-commerce can develop healthily must be based on Internet users, which has certain basic requirements for the needs of relevant talents. And with the rapid development of the Internet, simple operation talents are gradually being eliminated, and the society and enterprises need more application-oriented talents, who can not only enjoy the convenience brought by e-commerce in the use of e-commerce, but also be able to find e-commerce problems in a timely manner, and also need talents who can solve or propose solutions. Being able to keep up with the changing needs of the digital age, make

adjustments and changes in a timely manner, and cultivate composite, applied, and innovative e-commerce professionals with practical abilities that match social skill needs, strong transferability, and can adapt to the changing times, has become one of the influencing factors for the sustainable development of management e-commerce.

Türkiye conducted a survey on the use of global e-commerce platforms and consumer satisfaction, and found that brand e-commerce websites showed a high level of customer satisfaction. However, there is still room for improvement in terms of customer engagement. The communication between users and e-commerce websites is weak and one-sided, and the interaction outside the shopping process is limited [2].

Therefore, it is particularly important to cultivate more strong two-way communication with users and encourage high emotional intelligence talents to provide feedback. Buyers need to understand the logistics status of products purchased through e-commerce, and merchants also need to understand customer satisfaction with the products. They need to communicate with logistics companies and ensure the integrity of the entire logistics chain at night. Therefore, it is necessary to implement customer feedback collection and loyalty plans to increase customer engagement and create a more interactive and customer-centric service concept.

In the strategic selection of e-commerce to promote international economic and trade development, human resources also play an important role. As the ultimate consumer of e-commerce, an individual's consumption behavior directly affects the development of e-commerce. Therefore, at the individual level, first and foremost, it is necessary to strengthen consumer training and education. Because many traditional consumers are not accustomed to online shopping, they tend to shop in physical stores. Therefore, this study needs to educate consumers about the benefits of e-commerce through various channels and guide them on how to use e-commerce platforms. Only by truly understanding the advantages of e-commerce can consumers increase their willingness to use it.

Therefore, emphasis should be placed on cultivating the learning ability to independently and independently obtain relevant information and knowledge in the field; Having the ability to integrate knowledge from different disciplines and solve practical problems; Applied talents with independent thinking, innovative thinking, and creative

abilities[46].To correct the service concept of managing talents, such comprehensive talents should possess: teamwork, law-abiding, craftsman spirit, information literacy, integrity, proactive responsibility, innovative spirit, exploratory spirit, organizational ability, etc.

The importance of digitalization and technological transformation in modern international trade and its related strategic challenges require most export organizations to address various emerging e-commerce digital platforms. The dissemination of third-party multilateral platforms (TPMP) and well-known participants such as Amazon, eBay, and Alibaba [5]. This has led to most multinational corporations neglecting the evaluation of other types of multilateral e-commerce platforms, such as Content Management Systems (CMS).

So this requires technical talents who can evaluate e-commerce platforms and logistics distribution systems, because multilateral e-commerce platforms allow enterprises to trade with multiple parties simultaneously, and effective technical analysis and risk protection can improve their overall performance in foreign markets.

In summary, standardizing e-commerce laws and regulations, protecting information databases, improving logistics and distribution systems, and cultivating versatile talents are important trends for the orderly development of e-commerce in the global economic context. E-commerce also needs to respond to global green economy development policies, actively promote friendly cooperation among consumers, suppliers, manufacturers, enterprises, governments, and international organizations, and jointly build a healthy trade chain. Solving practical problems in logistics, payment, and dispute resolution not only relies on enterprise innovation, but also requires coordination and guidance from industry organizations and the government to actively seek solutions. In the rapid development of global e-commerce, it is inevitable to encounter problems such as uneven regional development, lagging policies and regulations, and a shortage of talents. Countries should proactively prevent the many risks they face, which can be considered from various aspects such as strengthening credit system construction, preventing legal risks, improving internal supervision of enterprises, and improving after-sales services. The sustainable development of global e-commerce requires the joint efforts of enterprises, industries, and governments. The competition and cooperation among e-commerce enterprises within the country should

explore multi-mode and multi-channel operation methods, and strengthen brand building. The development of international e-commerce should enhance the security, reliability, and credibility of trade exchanges between countries. Only in this way can e-commerce achieve significant development.

Conclusion

At present, the development of e-commerce has both unlimited opportunities and challenges that can not be ignored. The opportunities are the rapidly developing economic systems of various countries and the Internet chain created in the information age, which makes the country become orderly in the industrial chain, and also provides an effective platform and less costs for exchanges and cooperation between countries. It provides innovation space for expanding the international market. The challenge is that e-commerce is the product of the Internet age, which has its own high risks and operational complexity, and urgently needs the use of professionals and expand business. Therefore, how to promote the good development of e-commerce in the global economic context has become a necessary consideration in the current new economic era. This study believes that the development of e-commerce will inevitably follow the trend of global economic development, tending towards green development, energy-saving development, integrity development, and sustainable development.

This article finds through research that compared to traditional business activities, e-commerce has made great progress in the 21st century. The reason is that the development depends on the gradual popularization of the Internet. The reason why e-commerce can achieve rapid development and progress is mainly due to its four characteristics:

1 Electronic trading platform. Through the Internet, enterprises can communicate with relevant customers more conveniently, and can also complete transactions through electronic transmission on the Internet. Electronic trading platforms can be more convenient and efficient, and also save enterprises economic costs.

2 Expanded the market scope. The Internet can realize the connection of multiple places, so it can not be limited by the time and space scope, thus expanding the market scope of enterprises.

3 Virtualization. Online shopping and payment are all operations without physical objects, therefore they have the characteristics of virtualization.

4 More direct. Overall, the organizational structure of the internet economy is relatively flat, with sellers and buyers communicating directly through the internet, which greatly simplifies the intermediate links of traditional business activities and reduces the overall transaction cost in a certain way.

Although e-commerce mainly depends on the Internet, it has the characteristics of virtualization. However, e-commerce does not belong to the virtual economy and has significant differences from it. E-commerce should belong to the knowledge economy, which is the manifestation of the information economy relying on the Internet as a medium. In the network economy, information can be fully mined, and through mining, it can be used and ultimately traded to create economic benefits. The virtual economy mainly refers to the travel and trading activities of capital. In the virtual economy, the most fundamental requirement for generating economic benefits is information asymmetry. Moreover, through analysis and investigation, the global economy is now in a backward trend, which is due to the war conflicts, trade disputes and the impact of the COVID-19 epidemic among some countries. Some drawbacks of e-commerce have emerged, such as increased trade risks, tax losses, and a lack of comprehensive international trade laws and regulations.

These factors have a significant negative impact on the sustainable development of e-commerce. How to avoid these development drawbacks? This article proposes several countermeasures and suggestions: standardizing the operation mechanism of e-commerce, improving the logistics and distribution system, strengthening relevant talent training, and improving the tax and regulatory system of e-commerce. Only by standardizing and standardizing e-commerce behavior can it have an accurate development goal, move towards the direction of benefiting the country, the people, and cooperation and win-win, in order to narrow the uneven development gap between countries, reduce the top heavy burden of the world economy, and promote mutual benefit and win-win for developing and developed countries.

The “the Belt and Road” international economic and trade cooperation model proposed by the Chinese government has promoted the reform of economic globalization, pointed out the direction for the development of economic globalization, and become an

important ballast for the development of global economic integration. Because there are no specific restrictions on international trade cooperation, any independent sovereign country can participate, integrate the capital and technological advantages of developed countries and the human resources of developing countries, and achieve globalized cooperation and division of labor. It can not only promote the development of the two countries' economies and other fields through the offline "the Belt and Road", but also improve the cooperation mechanism through the "Silk Road E-commerce" international cooperation, expand the cooperation fields continuously, and enhance the diversification of cooperation methods. It has become an important measure to jointly build the "the Belt and Road" countries to share market opportunities and expand digital economy cooperation, and make positive contributions to jointly build the high-quality development of the "the Belt and Road" and promote consumption upgrading of countries.

In the coming years, e-commerce will show the following trends:

1 Intelligence: Applying intelligence to e-commerce, optimizing customer experience, and intelligent customer service systems.

2 Traffic concentration: The traffic of various e-commerce platforms will be concentrated on a certain platform to present the maximum purchasing power of users.

3 Digitization: Businesses invest more resources in digital management, significantly increasing their profits.

4 Cross border transactions: Cross border e-commerce is constantly developing, and the international market will bring more trade and investment opportunities to e-commerce, expanding sales channels.

5 Sharing economy: New technologies represented by sharing economy will have a significant impact on e-commerce, such as distributed logistics, on-demand production, block chain and other technologies, which will change the development mode of e-commerce.

In summary, the development and application of e-commerce have created a good opportunity for the healthy and sustainable development of international trade. With the support of e-commerce, it can not only improve the trade efficiency of enterprises, but also

reduce their trade costs, thereby enhancing their market competitiveness. In view of this, in order to better apply e-commerce to international trade, it is necessary to strengthen the construction of digital infrastructure, establish supporting laws and regulations, improve payment systems, strengthen the construction of professional talent teams, and fully leverage the promoting role of e-commerce in the development of international trade. I believe that in the future, e-commerce will develop more stably and intelligently, making consumer purchases more convenient.

References

- 1 AFR regional economic outlook. URL: <https://www.imf.org/external/datamapper/datasets/AFRREO> (Accessed date: 17.04.2024).
- 2 Akin M. S. Enhancing e-commerce competitiveness: A comprehensive analysis of customer experiences and strategies in the Turkish market // Journal of open innovation: technology, market and complexity. 2024. № 10. P. 1–3.
- 3 Andrievskaia D. Comparative analysis and cooperation prospects of e-commerce development between China and Russia: A case study of OZON.ru and Taobao.com // Guangdong University of Foreign Studies. 2021. № 12. P. 1–11.
- 4 Asia's growth and inflation outlook improves, but risks remain. URL: <https://www.imf.org/zh/Blogs/Articles/2024/04/29/asias-growth-and-inflation-outlook-improves-but-risks-remain> (Accessed date: 17.04.2024).
- 5 Ballerini J., Kljucnikov A., Juarez-Varon D., Bresciani S. The e-commerce platform conundrum: How manufacturers' leanings affect their internationalization // Technological forecasting & social change. 2024. № 202. P. 123–149.
- 6 Changes in consumer dynamics on general e-commerce platforms during the COVID-19 pandemic: An exploratory study of the Japanese market. URL: [https://www.cell.com/heliyon/fulltext/S2405-8440\(22\)00155-4](https://www.cell.com/heliyon/fulltext/S2405-8440(22)00155-4) (Accessed date: 20.04.2024).
- 7 Chen J. Analysis of the characteristics and trends of e-commerce development in China // Shanghai business. 2022. № 12. P. 28–30.
- 8 Chu L. A step towards ecological sustainability: How do productive capacity, green financial policy, and uncertainty matter? URL: <https://www.sciencedirect.com/science/article/abs/pii/S0959652623030044> (Accessed date: 27.04.2024).
- 9 E-commerce during COVID in Spain: one “click” does not fit all. URL: <https://www.imf.org/en/Publications/WP/Issues/2024/05/24/E-Commerce-During-COVID-in-Spain-One-Click-Does-Not-Fit-All-549510> (Accessed date: 17.04.2024).
- 10 Egorova M., Pluzhnic M., Glik P. Global trends of “Green” economy development as a factor for improvement of economical and social prosperity // Social and behavioral sciences. 2015. № 166. P. 194–198.

- 11 Financial globalization and economic growth amid geopolitical risk: A study on China-Russia far East federal district. URL: [https://www.cell.com/heliyon/fulltext/S2405-8440\(24\)07129-9](https://www.cell.com/heliyon/fulltext/S2405-8440(24)07129-9) (Accessed date: 7.04.2024).
- 12 Fiscal Monitor (April 2024). URL: <https://www.imf.org/external/datamapper/datasets/FM> (Accessed date: 17.04.2024).
- 13 Geopolitics and its impact on global trade and the dollar. URL: <https://www.imf.org/en/News/Articles/2024/05/07/sp-geopolitics-impact-global-trade-and-dollar-gita-gopinath> (Accessed date: 14.04.2024).
- 14 Guan H., Mamun Ah. The relationship between mass customization and sustainable performance: The role of firm size and global E-commerce // Heliyon. 2024. № 03. P. 14–29.
- 15 Handling consumer vulnerability in e-commerce product images using machine learning. URL: [https://www.cell.com/heliyon/fulltext/S2405-8440\(22\)02031-X](https://www.cell.com/heliyon/fulltext/S2405-8440(22)02031-X) (Accessed date: 22.04.2024).
- 16 Handoyo S. Purchasing in the digital age: A meta-analytical perspective on trust, risk, security, and e-WOM in e-commerce // Heliyon. 2024. № 10. P. 18–23.
- 17 He Y. A study on global economic imbalance, value chain reconstruction, and sino-US trade friction // Southeast University. 2021. № 11. P. 141–145.
- 18 Hou H. Analysis of the development path of international economic and trade under the background of e-commerce // Business exhibition economy. 2023. № 08. P. 66–68.
- 19 How a Russian natural gas cutoff could weigh on Europe's economies. URL: <https://www.imf.org/zh/Blogs/Articles/2022/07/19/blog-how-a-russias-natural-gas-cutoff-could-weigh-on-european-economies> (Accessed date: 23.04.2024).
- 20 Huang B. Research on the problems and countermeasures of talent cultivation in e-commerce majors of applied undergraduate universities in the digital intelligence era // Heilongjiang Education (Theory and Practice). 2024. № 04. P. 96–97.
- 21 Huang Z. Research on new trends in global development of low carbon economy // Investment and Entrepreneurship. 2020. № 12. P. 51–53.

22 IMF staff completes 2024 mission to the people's republic of China. URL: <https://www.imf.org/zh/News/Articles/2024/05/28/pr24184-china-imf-staff-completes-2024-art-iv-mission> (Accessed date: 17.04.2024).

23 Internet Users Statistics for all the Americas. URL: <https://www.internetworldstats.com/south.htm#br>. (Accessed date: 29.04.2024).

24 Jia J. The development of e-commerce and its impact on economic globalization // Modern Business. 2015. № 12. P. 32–45.

25 Kilay A. L. The influence of e-payment and e-commerce service on supply chain performance // Open innovation: technology, market, and complexity. 2022. № 8. P. 119–143.

26 Li Y., Kumarasinghe P. J. A behavioral model of service-derived manufacturing in e-commerce companies from the innovation chain perspective: A case study from China // Heliyon. 2023. № 12. P. 2–4.

27 Liu Ch., Liu G. Overview, trends and countermeasures of global digital economy development // Financial observation. 2022. № 04. P. 57–60.

28 Liu H., Jun J. A study on the impact of privacy concerns on user purchase intention in the e-commerce environment // Business research. 2024. № 06. P. 47–49.

29 Liu Zh. Global e-commerce market trends report // Yugo border. 2023. № 5. P. 45–56.

30 Lu Z. Analysis on the talent training model of “the Belt and Road” cross-border e-commerce // Electronic business. 2024. № 06. P. 41–43.

31 Mo Y. The systemic construction of the tort liability for the violation of the duty of security care obligation of e-commerce platform operators // Journal of Chongqing University. 2023. № 3. P. 20–32.

32 Moutaz H. Exploring the Impact of GDPR on Big Data analytics operations in the e-commerce industry // Procedia Computer Science. 2023. № 01. P. 773–774.

33 Purchase intentions for cultural heritage products in E-commerce live streaming: An ABC attitude theory analysis. URL: [https://www.cell.com/heliyon/fulltext/S2405-8440\(24\)02501-5](https://www.cell.com/heliyon/fulltext/S2405-8440(24)02501-5) (Accessed date: 3.04.2024).

- 34 Rahmana S., Faisal F. Investigating the financial market development and shadow economy nexus in the presence of country risk in an emerging economy // *Heliyon*. 2023. № 09. P. 10–12.
- 35 Regional economic outlook for Asia and Pacific. URL: <https://www.imf.org/zh/Publications/REO/APAC/Issues/2024/04/30/regional-economic-outlook-for-asia-and-pacific-April-2024> (Accessed date: 24.04.2024).
- 36 Rus A., Mohammed H., Dipti K. A reverse proxy approach to mitigate Mage Cart's e-skimmers in e-commerce // *Computers & Security*. 2024. № 03. P. 14–28.
- 37 Shi J. Research on the collaborative development of international e-commerce and international logistics industry // *Logistics Sci-Tech*. 2023. № 24. P. 65–68.
- 38 Spence M. Government and economics in the digital economy // *Journal of government and economics*. 2021. № 10. 10–20.
- 39 Sun B. Comparison between international e-commerce and traditional international trade practice // *China market*. 2020. № 04. P. 09–10.
- 40 Tavares L. Equity in e-commerce accessibility: Gaps and opportunities for a research agenda // *Latin American transport studies*. 2023. № 12. P. 2–4.
- 41 Technology acceptance factors of e-commerce among young people: An integration of the technology acceptance model and theory of planned behavior. URL: [https://www.cell.com/heliyon/fulltext/S2405-8440\(23\)03625-3](https://www.cell.com/heliyon/fulltext/S2405-8440(23)03625-3) (Accessed date: 4.04.2024).
- 42 The 6 types of ecommerce business models (2024). URL: <https://www.shopify.com/blog/types-of-ecommerce> (Accessed date: 28.04.2024).
- 43 The Commodity Markets Outlook in eight charts. URL: <https://blogs.worldbank.org/en/developmenttalk/the-commodity-markets-outlook-in-eight-charts> (Accessed date: 12.04.2024).
- 44 The last mile: financial vulnerabilities and risks. URL: <https://www.imf.org/en/Publications/GFSR/Issues/2024/04/16/global-financial-stability-report-april-2024> (Accessed date: 9.04.2024).
- 45 The relationship between mass customization and sustainable performance: The role of firm size and global E-commerce. URL: [https://www.cell.com/heliyon/fulltext/S2405-8440\(24\)03757-5](https://www.cell.com/heliyon/fulltext/S2405-8440(24)03757-5) (Accessed date: 17.04.2024).

- 46 The World by Income and Region. URL: <https://datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html> (Accessed date: 17.04.2024).
- 47 Wang Sh. Analysis of strategies for promoting international economic and trade development through e-commerce // China storage and transport. 2024. № 4. P. 143–144.
- 48 Wang W. The road to comprehensive development: A study on the establishment of an improving globalization // University of international business and economics. 2020. № 06. P. 120–123.
- 49 Warinrampai R. What drives Taobao live streaming commerce? The role of parasocial relationships, congruence and source credibility in Chinese consumers' purchase intentions // Heliyon. 2022. № 06. P. 12–14.
- 50 World Economic Outlook (April 2024) - Real GDP growth. URL: https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEO_WORLD (Accessed date: 5.04.2024).
- 51 World Economic Outlook, April 2024: Steady but slow: resilience amid divergence. URL: <https://www.imf.org/en/Publications/WEO/Issues/2024/04/16/world-economic-outlook-april-2024> (Accessed date: 17.04.2024).
- 52 Worldwide e-commerce forecast 2023. URL: <https://www.insiderintelligence.com/content/worldwide-ecommerce-forecast-2023> (Accessed date: 17.04.2024).
- 53 Xie Y. Factors influencing international logistics under economic globalization and strategy recommendations for China // Beijing Jiaotong University. 2020. № 09. P. 154–157.
- 54 Xiuli M., Xue G. New marketing strategy model of E-commerce enterprises in the era of digital economy // Heliyon. 2024. № 04. P. 5–6.
- 55 Xu D. International economic and trade development strategies in the e-commerce environment // National circulation economy. 2020. № 02. P. 50–51.
- 56 Yang M., Dai H., Zhou X. Service remediation, customer satisfaction and trust, customer loyalty – Based on B2C e-commerce data analysis // Times of economy and trade. 2024. № 03. P. 134–140.
- 57 Yang Y. The impact and countermeasures of e-commerce on international trade // Economic forum. 2022. № 07. P. 209–222.

58 Yi J., Peng Y. Research on the risk prevention of cross-border e-commerce logistics in China by applying Big Data Technology // *Procedia computer science*. 2022. № 10. P. 408–409.

59 Zhang H. On the advantages and disadvantages of cross border e-commerce in international economy and trade // *Digital economy*. 2023. № 12. P. 37–39.

60 Zhang J. Research on the shortcomings and countermeasures of international e-commerce development in the big data environment // *Electronic business*. 2018. № 26. P. 13–14.

61 Zhang Q., Ren B. The mechanism, goals and paths of modernizing the industrial chain driven by the digital economy // *Journal of Zhengzhou University*. 2023. № 09. P. 43–45.

62 Zhang X. On administrative law regulation of governance power of super Internet platform // *Administrative law review*. 2024. № 03. P. 94–98.

63 Zhao G. China e-commerce report // *Chinese business*. 2022. № 12. PP. 33–35.

64 Zhao Y., Ding L. A study on the path to enhance the international competitiveness of cross border e-commerce logistics under the background of Hong Kong Zhuhai Macao cooperation // *Logistics industry chain*. 2024. № 04. P. 100–104.

65 Zhou M. The impact and countermeasures of e-commerce on international economic and trade // *Investment and cooperation*. 2020. № 07. P. 70–72.

66 Zhu X., Han W. The failure and contradiction of global economic governance system and China's optimization practice // *International economics and trade research*. 2023. № 09. P. 93–95.

67 Zhu Y., Fan Ch. Global e-commerce: development status and trends // *Logistics Sci-Tech*. 2020. № 1. P. 20–22.