

Innovative Development and Strategies of International Trade in the Age of Digital Economy

Jingjia Wu^{1,*}, Yijin Li², Kefei Meng³

¹Hunan Institute of Science and Technology, Yueyang, China

²Soochow University, Suzhou, China

³Northwest A&F University, Shaanxi, China

*Corresponding author: 1372626528@qq.com

Abstract. With the rapid development of digital technology, international trade is experiencing unprecedented transformation, this paper discusses in depth how digital technology has reshaped the traditional trade model, especially the digitisation of supply chain management, the expansion of e-commerce and the innovation of cross-border payment systems, and at the same time examines the strategies of international trade in the context of the digital economy, and ultimately puts forward the views and suggestions for the future of international trade, stressing that adaptation and promoting digitalisation is the key to improving trade efficiency and competitiveness.

Keywords: digital economy; international trade; supply chain management.

1. Introduction

Introduction: In the tide of digital economy, international trade is facing a series of revolutionary changes, and digital technologies, such as cloud computing, big data, artificial intelligence, etc., have brought new vitality and challenges to traditional trade. This paper will explore how these technologies change the traditional international trade model, analyse how policy makers and enterprises can respond to the new market demand and regulatory environment through strategic innovation in this new era, aiming to provide readers with an in-depth understanding of the innovative development and strategies of international trade in the era of the digital economy, as well as suggesting specific coping strategies.

2. How digital technology is changing the traditional trade model

2.1. Digitalisation of supply chain management

With the in-depth development of digital technology, the digitalisation of supply chain management has become an important force in promoting the transformation of the traditional trade model, in which the real-time sharing of information flow and the application of optimised decision support systems have become the core. The digital supply chain realises real-time transparency of information between supply chain segments through the integration of Internet of Things (IoT), cloud computing and big data analytics, which effectively improves the responsiveness and efficiency of the supply chain, e.g. smart sensors deployed through IoT technology can monitor the status and location of goods in real time, and the cloud platform provides a shared data environment, which enables the supply chain participants to instantly access the key information and make quick decisions accordingly. On the other hand, the application of advanced data analytics and machine learning technologies in digital supply chain management has also brought innovation to the traditional trade model. Through in-depth analysis of historical and real-time data, enterprises can predict market trends, customer demand and potential supply chain risks, and make strategic adjustments in advance, for example, by using machine learning algorithms to analyse consumer behaviour patterns and market changes, enterprises can make demand forecasts more accurately. Accurate demand forecasting, and then adjust the production plan and inventory levels, this data-driven decision-making based on the supply chain can greatly enhance the flexibility and resilience of the supply

chain, so that enterprises can better grasp the customer demand in the competitive market environment, to achieve personalised services and rapid iteration of products ^[1].

2.2. Expansion of e-commerce

Under the impetus of the digital economy, e-commerce, as a revolutionary form of the traditional trade model, has expanded not only to redefine the way of selling goods and services, but also to change the interaction mode between enterprises and consumers in a deeper way. e-commerce makes the sale of goods and services break through the limitations of geography and time, and provides consumers with a seamless shopping experience, and at the same time opens up the door of the global market to enterprises. E-commerce platforms use data analytics tools to monitor and analyse consumer behaviour in real time, and make accurate market positioning and product recommendations based on consumers' purchasing history, search habits and personal preferences, which greatly improves the relevance and efficiency of marketing, e.g., large e-commerce platforms such as Amazon and Alibaba have realised personalised marketing through algorithmic optimisation of recommender systems, which has significantly increased the user's Purchase conversion rate, and optimised logistics network to ensure rapid processing and delivery of orders, this model has greatly enhanced user satisfaction and brand loyalty. The expansion of e-commerce also promotes the diversification of payment methods and the enhancement of security. The popularity of digital payment systems such as Alipay and PayPal provides convenience and security for online transactions, and the payment platform simplifies the transaction process and reduces the transaction cost, and safeguards the safety of consumer funds through an efficient security mechanism, which strengthens the trust of consumers in the e-commerce platform, and with the application of blockchain With the application of emerging technologies such as blockchain, the transparency of e-commerce transactions and data security have been further strengthened.

2.3. Innovation of cross-border payment system

In the context of the digital economy, the innovation of cross-border payment systems has become a key technological breakthrough in international trade, which has greatly contributed to the facilitation and efficiency of global trade. The traditional cross-border payment process usually involves complex intermediary services, high fees and long processing times, which largely limits the ability of small businesses and self-employed individuals to participate in the international market, but with the popularity of digital payment platforms such as PayPal and Stripe, as well as the introduction of blockchain technology, a new generation of cross-border payment systems can provide faster, transparent and low-cost payment solutions. platforms such as PayPal, Alipay and Stripe, as well as the introduction of blockchain technology, a new generation of cross-border payment systems are able to provide faster, more transparent and lower-cost payment solutions. These systems greatly reduce transaction costs by de-intermediating the payment process and shorten the time for confirmation of transactions, which allows funds to be transferred in near real-time, greatly improving the efficiency and security of the flow of funds. efficiency and security. On the other hand, the development of digital technology has also facilitated the application of regulatory science and technology, enabling cross-border payment systems to be more flexible and secure while complying with international anti-money laundering (AML) and customer identification (KYC) rules, for example, by using machine learning and artificial intelligence, payment systems are able to monitor and analyse transaction patterns in real time, identify and prevent fraudulent behaviours in a timely manner, and safeguard the security of transactions, and its raises the It raises the security threshold of cross-border payments and provides a more efficient regulatory tool for national regulators.

3. International Trade Strategies in the Digital Economy

3.1. Role and Strategies of Policy Makers

2.1.1 Formulate laws and policies in favour of digital trade

In the era of digital economy, the key responsibility of policy makers is to formulate laws and policies in favour of digital trade to promote the smooth development of international trade. In view of the special characteristics of cross-border e-commerce, special cross-border e-tax laws can be formulated, such as the EU's value-added tax rules for non-EU enterprises to provide e-services within the EU, which simplify the tax process and also provide a fair competitive environment for foreign enterprises, promoting the fair competition and healthy development of the e-service market. fair competition and healthy development of the e-service market. At the same time, policymakers should promote international cooperation to develop common digital trade standards and rules, which are important for reducing international transaction costs and enhancing market transparency, for example, through international organisations such as the World Trade Organisation (WTO) and the Organisation for Economic Co-operation and Development (OECD) to promote international co-ordination and co-operation, and to formulate standards for the classification and tariff reduction and exemption of digital goods and services. policies, this type of international cooperation helps to formulate a globally recognised system of trade rules, and also promotes the sharing of technology and the mutual borrowing of policies to further stimulate the vitality and innovation of international trade, and also protects the legitimate rights and interests of developing countries in the global digital economy and avoids the further expansion of the digital divide ^[2].

2.1.2 Strengthen transnational regulatory cooperation

In the era of digital economy, the strengthening of transnational regulatory cooperation is a key strategy to achieve the smooth development of international trade. Regulators need to establish unified technical standards and regulatory frameworks globally to cope with the legal and regulatory challenges of digital trade, for example, copyright protection of digital content is an international issue, and different countries have different laws for the protection of digital copyrights, which is a big challenge for multinational enterprises. Through international organisations such as the World Intellectual Property Organisation (WIPO), countries can negotiate uniform copyright protection standards and jointly promote copyright protection for cross-border transactions of digital content. In order to address consumer protection in e-commerce, organisations such as the International Consumer Protection and Enforcement Network (ICPEN) coordinate regulatory policies globally to ensure that consumers enjoy fair trading conditions and effective legal protection in any country. In addition to this, strengthening international co-operation on data protection and cybersecurity is also an important aspect of promoting the smooth running of international trade. In digital trade, the increasing application of big data and artificial intelligence technologies has put forward higher requirements for data protection, for example, the EU's General Data Protection Regulation (GDPR) provides strict guidance on data transfers across borders, and in order to exchange data with the EU The EU's General Data Protection Regulation (GDPR) provides strict guidelines for data transfers across borders, and in order to exchange data with the EU, non-EU countries need to ensure that their level of data protection is in line with the GDPR, which requires in-depth international dialogue and cooperation on data protection standards^[3].

4. Corporate Strategy

4.1. Digital transformation strategy

In the era of digital economy, digital transformation of enterprises has become the key to improve competitiveness. Enterprises need to pay attention to the establishment of a data-centric decision-making system, through efficient data collection and analysis to deeply understand market demand and consumer behaviour, and then more accurately formulate product development and market

strategies, e.g., through the deployment of advanced Customer Relationship Management (CRM) systems, enterprises can track real-time For example, by deploying advanced customer relationship management (CRM) systems, enterprises can track consumers' purchasing history and behavioural patterns in real time, and use this data to support marketing decisions, such as personalised promotional campaigns and pricing strategies, in order to improve customer satisfaction and brand loyalty. On the other hand, the digital transformation of enterprises also needs to cover the digital upgrading of internal operations, which involves the use of automation and intelligent technologies to optimise production processes and improve service quality. For example, through the introduction of machine learning and artificial intelligence technologies, enterprises can monitor the status of equipment and product quality in real time during the production process, adjust production parameters in a timely manner to ensure product quality while reducing resource wastage. For example, in the service industry, such as banking and insurance, enterprises can provide 24-hour customer service by deploying chatbots and automated customer service systems, so as to improve customer experience and reduce labour costs^[4].

3.1.1 Innovation and Cooperation Mode

In the era of digital economy, the enterprise strategy in international trade needs to pay attention to the construction of innovation and cooperation mode, in order to adapt to the fast-changing market environment and achieve sustainable development, enterprises can introduce the latest technology and innovative thinking through the cooperation with science and technology companies, in order to enhance their own technological capabilities and market competitiveness, for example: the traditional manufacturing enterprises can cooperate with domestic and foreign cloud computing service providers, using cloud technology to Enhance the data processing capability and realize the intelligence and automation of the production process in order to optimize the production efficiency, monitor the market dynamics and consumer behaviour in real time, and respond quickly to market changes. While pursuing innovation, enterprises also need to establish cross-industry cooperation networks to integrate the resources and advantages of all parties to jointly develop new markets or jointly respond to industry challenges, for example: the cooperation between domestic e-commerce platforms and logistics companies, through the integration of e-commerce's sales network and the distribution capacity of logistics to greatly enhance the efficiency of logistics, and to improve the consumer's shopping experience, and this mode of cooperation has become the standard configuration of the e-commerce industry ^[5].

5. Conclusion

In the era of digital economy, the pattern and operation of international trade are undergoing profound changes, by exploring in detail the innovation of cross-border payment system, digital transformation strategy, and innovation and cooperation mode of enterprises, this paper reveals how enterprises can effectively adapt to and make use of these changes to enhance their international competitiveness, and with the continuous advancement of the global wave of digitisation, enterprises must continue to innovate and strengthen international As the global digital wave continues to advance, enterprises must continue to innovate and strengthen international cooperation to protect data security and promote trade facilitation, so as to secure and expand their market position in the complex and changing international market.

References

- [1] He Bing, Xu Da. Exploration of International Trade Talent Cultivation Mode in Colleges and Universities in the Era of Digital Economy [J]. Northern Economy and Trade, 2023, (10): 136-138.
- [2] Li Jingrong. New trends and challenges of international trade in the era of digital economy [J]. International Business Accounting, 2023, (16): 7-10.

- [3] ZHANG Jianhua, CHEN Jinyuan, WEN Keyi. Problems and Countermeasures of 'Internet+' International Trade Talent Cultivation in the Age of Digital Economy [J]. China Market, 2023, (18): 193-196.
- [4] Margiansyah D. Revisiting Indonesia's economic diplomacy in the age of disruption: Towards digital economy and innovation diplomacy[J]. Journal of ASEAN Studies, 2020, 8(1): 15-39.
- [5] Luo S, Yimamu N, Li Y, et al. Digitalization and sustainable development: How could digital economy development improve green innovation in China?[J]. Business Strategy and the Environment, 2023, 32(4): 1847-1871.