Opportunities and Challenges of International Trade under the Background of Big Data

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Abstract: The most prominent feature of the Internet economy era is the emergence and wide application of big data technology. The arrival of the big data era has not only changed the previous industrial development structure, but also brought new challenges to the development of international trade. For the development of enterprises, they should pay attention to the development of big data technology and do a good job in the innovation and application of technology. Only in this way can they enhance the market competitiveness, better participate in international trade and realize the long-term stable development. This work mainly discussed the development of international trade under the background of big data, including the opportunities and challenges faced by international trade. It hopes to guide enterprises to make good use of big data technology, guide enterprises to actively participate in international trade, open up international markets, and realize their own higher quality development.

1. Introduction

Science and technology are the primary productive forces. Enterprises must pay attention to scientific and technological innovation, and actively do a good job in the innovation and application of various new technologies. Big data technology is a popular technology at present, and it is also the main technical support for enterprise operation and development under the background of big data era. Only when enterprises realize the necessity of big data technology application, can they realize efficient collection and scientific analysis of information in market competition and international trade, thus guiding strategic choice and decision-making [1]. The sharing and utilization of information resources will bring about the acquisition and maintenance of its dominant position in international trade competition. In the era of big data, the development of international trade and the participation of enterprises in international trade activities are both opportunities and challenges. The correct way is to seize the opportunities and meet the challenges. Only by making good use of big data technology can the data use be optimized. Therefore, it is necessary to objectively analyze the opportunities and challenges faced by international trade under the background of big data.

2. The Role of Big Data in Promoting the Development of International Trade

2.1 Big data improves the efficiency of information resource integration

Previously, the data of various industries and departments were isolated and rigid, without communication and interconnection with other relevant departments. In the implementation of international trade, the market demand of products is often judged based on their own experience, which often leads to inaccurate judgment and unscientific prediction. With the help of big data information technology, relevant departments can view and share information resources intuitively, conveniently and accurately on their own ports. Consequently, the data circulation frequency and data exchange and integration ability are significantly improved, and the enterprise information utilization rate is higher [2]. At the same time, it promotes the establishment of modern international trade pattern,

and the added value of big data is more obvious, which can guide enterprises to reasonably avoid operational risks and expand social productivity.

2.2 Big data reduces the cost of enterprise maintenance and operation

In the past, international trade focused on the operation of trade in services and goods, and paid little attention to information exchange. Most of them exist in the ancillary form of goods and services, and do not play its effective value in guiding the operation of enterprises. In the era of big data, the above situation has changed in essence. The international trade industry has begun to guide business development based on the value of information. The data circulation rate has been greatly improved, bringing the cost of enterprise management and storage technology down, and big data has also increased the channels for relevant departments to obtain data. Data is also scattered from the previous block to the docking of various ports, which makes the enterprise data acquisition faster. Thus, it can make accurate response, reduce the cost of enterprise information maintenance, and improve the work efficiency of each department.

2.3 Big data simplifies trade service model

Due to the integration of logistics industry, big data optimizes and simplifies the steps of international trade. Nowadays, big data is developing rapidly. Before the goods are sold, most countries only need to sell semi-finished products to other countries, and the value-added process can be implemented after the enterprise exports the trade. In the previous era, the demand forecast for a region's trade was mainly based on the experience of the authorities. In fact, it was very far away from the ordinary people and could not directly change the real situation of people's life. In the mode of big data information sharing, enterprises can play a subjective initiative. With the help of data, they can change relevant policies and guidelines, and communicate with the public through open and diversified channels to meet the needs of the public. The economic and trade environment with the participation and decision-making of the whole people has been constructed. It makes the services or goods provided by enterprises more personalized, more accurate and more professional, and also improves the service satisfaction of customers.

3. Challenges Faced by International Trade Development in the Era of Big Data

3.1 Challenges in logistics

According to the survey, the annual international shipping payment cost has exceeded $1 trillion, of which the logistics cost accounts for about 25%. The traditional form of logistics can not meet the current rapid development. With the qualitative change of international trade relying on big data analysis, the logistics mode must follow the pace of international trade. It needs to be more rapid, efficient and safe, and the logistics service should also be continuously improved. At present, the most important thing is to solve various problems in international transportation.

3.2 Challenges in demand forecasting

If an enterprise wants to occupy a dominant position in competition, it must do a good job in the research of production and service. However, there are many unknown factors in the market response of the launch of enterprise product production and service projects. Once the enterprise research is not in place or the product prediction is wrong, it may bring a fatal blow to the enterprise production and operation. In the era of big data, the value of data is more prominent and the influence of data is greater [3]. However, it is worth noting that accurate prediction has different price positioning for different consumer demand groups. It is a blow to the free market that those with higher demand have higher prices and those with lower demand have lower prices. Therefore, it has to be said that the international trade predicted by big data is a double-edged sword with both advantages and disadvantages.

3.3 Challenges in information risk threats

The advent of big data era not only promotes the reform of international trade, but also points out the direction for the reform and innovation of production, logistics, distribution, etc. At the same time, the immediacy and rapidity of trade information also make the information widely disseminated. To a certain extent, this increases the risk of information being plagiarized by rivals, and even leads to transaction failure. The content of information in the process of trade involves personnel information and market information of different countries. Once it is lost or used maliciously, it will pose a serious threat to the security of the country, society and people. Therefore, we must attach great importance to the safety of international trade and transportation. The content of information in the process of trade involves personnel information and market information from different countries. Once the information is lost or used maliciously, it will pose a serious threat to the security of the country, society and people. Therefore, the safety in the process of international trade and transportation must be attached great importance.

4. Challenges to International Trade Development under the Background of Big Data

4.1 Accelerating the information construction process of international trade

Compared with traditional international trade, modern trade has higher data transmission efficiency and more open and transparent information, which are the prerequisites for the value of international trade data. Reviewing the development of traditional international trade, it is difficult to obtain data and information, and the data information has obvious lag. Therefore, the utilization value is not high, and enterprises rarely spend more time and energy on the acquisition and analysis of trade data. Under the background of big data era, the information construction of logistics industry is more in-depth, and the platform data docking is more convenient. If the logistics and transportation are all carried out on the network and the network confirms the data, the transportation can be realized. This also requires us to further promote the information construction of international trade.

4.2 Actively exploring effective measures for financial innovation

The development of international trade activities needs the support of financial services. International financial institutions are the main support body of international trade activities, and they have mature customer data systems. With the support of big data technology, the value of data is more prominent. Financial institutions can analyze financial transaction data, judge the actual needs of customers, and guide their own financial service innovation. At present, maximizing the advantages of big data has become the primary focus of financial institutions. On the other hand, information security should also be paid attention to. It should improve the supervision of market information and do a good job in the scientific extraction and management of information. It is also necessary to ensure that information within its own financial scope is open and legal, thus providing real and effective information support for international trade. The premise of giving full play to the value of financial data is the scientific and accurate acquisition of financial data, and the accurate acquisition and analysis of data benefit from a secure data environment and a strong information security supervision mechanism. Due to the imperfection of the current financial data information maintenance system in China, the construction of financial information security system is still the key point.

4.3 Actively playing the role of banks in supporting trade

In recent years, the third-party trade platform has developed rapidly and become a powerful carrier for financial institutions to make sustained and stable efforts in international trade. The bank itself has a stable customer group and rich customer resources. With the help of the third-party trade platform, it can effectively obtain and scientifically analyze customer trade data. Especially with the support of big data technology, financial institutions can quickly capture the valuable data of the third-party trade platform for scientific extraction and accurate analysis, thus predicting the development trend of international trade [4]. If it is found that the number of goods inquiry continues to increase, the

response should be made quickly to realize the adjustment of the financing threshold of such goods and provide financial guarantee for the development of international trade. For another example, banks can cooperate with enterprises with high frequency of port use and good reputation to form a long-term strategic partnership. This measure also makes enterprises with good reputation gather together to form a high-quality enterprise organization, which makes bank loan service and financial guidance more effective.

5. Conclusion

The development trend of big data era is increasingly obvious. No enterprise or activity can stay out of the big data era, and the development of international trade is no exception. To a certain extent, the development of big data technology also provides power support and information decision-making for the information development of international trade. Therefore, it is worth thinking about to give full play to the advantages of big data technology to offer perfect services for international trade. Specifically, the opportunity of international trade development in the era of big data must be seized, and enterprises should be guided to actively participate in international trade competition. With the support of big data technology, it is necessary to do well in-depth mining and analysis of trade data information, actively broaden the trade market and participate in trade competition, and finally realize the long-term and stable development of enterprises.

References

[1] Spiliopoulos, G., Zissis, D., & Chatzikokolakis, K. (2017, September). A big data driven approach to extracting global trade patterns. In International Workshop on Mobility Analytics for Spatio-temporal and Social Data (pp. 109-121). Springer, Cham.

[2] Hansen, H. K., & Porter, T. (2017). What do big data do in global governance?. Global Governance: A Review of Multilateralism and International Organizations, 23(1), 31-42.

[3] Munar, A., Chiner, E., & Sales, I. (2014, August). A big data financial information management architecture for global banking. In 2014 International Conference on Future Internet of Things and Cloud (pp. 385-388). IEEE.

[4] Burri, M. (2020). Big Data and Global Trade Law: An Introduction. Forthcoming in Big Data and Global Trade Law, ed. by Mira Burri (Cambridge University Press, 2020).