

# ***The Function and Significance of Supply Chain under the New Situation of Global Economy***

**Zilong Zhu<sup>1,a,\*</sup>**

<sup>1</sup> *Ulster College, Shannxi University of Science and Technology, Xi'an, China, 710021*

*a. 1851301501@qq.com*

*\*corresponding author*

**Abstract:** The supply chain is an important tool for any economic individual to obtain sustainable development and maintain core competitiveness, and it is also the guarantee of coordinating supply and demand in economic development and financial goods market transactions. Under the new situation of global economic development, most enterprises use more efficient and perfect processes to make their supply chain run efficiently in order to maintain competitiveness. On the basis of their respective divisions of labor, different enterprises have formed a pattern of mutual dependence, connection, and common development. The traditional competition among individual enterprises has gradually evolved into a competition among different components of the supply chain. On the basis of perfect economic market, the supply chain further integrates various economic subjects and their activities in series, and refines the individual and overall layout in the economic cycle. This paper focuses on the importance and role of supply chains in the new global economic development situation, specifically on how supply chains can promote and improve the development of economies, enterprises, and individuals. As well as the important coordination and promotion role of the supply chain in the whole market's resource processing and circulation in the process of economic development, the relevant research is carried out by means of investigation, data collection, and consultation. After a series of studies, we have come to the conclusion that the supply chain plays an irreplaceable role and has significant significance in economic development and enterprise development in the global market and plays an important coordinating and helping role in the development of different industries.

**Keywords:** function, significance, global economy, development, epidemic

## **1. Introduction**

The supply chain is the result of long-term development and evolution of international market transactions, trade, and investment, all of which play important roles in refining industrial labor divisions, enterprise benefit distribution, and resource distribution. At present, the development of supply chains is highly valued and publicized by countries and well-known enterprises all over the world. The research on the role and importance of supply chain is as plentiful as a spring, but there are few reports on analyzing supply chain in conjunction with global overall development and specific examples in practice. This paper aims at the important significance and function of supply chain in the new global economic development situation, employs concrete examples of enterprises and countries to promote and perfect the development and operation of economies and enterprises

through series coordination, and combines with big data analysis and other industries to promote the overall resource processing and market transaction circulation, and conducts relevant research and analysis. The significance lies in pointing out the path for future development of related industries and enterprises by analyzing and summarizing the current situation of the tumultuous supply chain development.

## **2. Analysis of the Influence of Supply Chain on Global Economy and Industry under the New Economic Situation**

The formation of the global market industrial supply chain is an effective tool obtained from the long-term evolution and development of international trade and financial markets, which is conducive to the matching and development of the whole market and individuals [1]. With the intensification of market competition, The dynamic external environment requires enterprises to respond quickly and effectively to changes, It is necessary not only to strengthen the internal management of enterprises, but also to actively establish the cooperative relationship between enterprises, provide a complete product mix, shorten the production and circulation cycle of products, pull into the supply and circulation links of products, shorten the distance between supply and demand, and improve market competitiveness. The division of labor of each node in the supply chain, in other words, the production and supply of resources of a single node in the supply chain requires professional allocation and links with other nodes. The professional degree or efficiency of each supply chain or the same profit line and multiple supply chains in the production line determines the development of the industry or the reasonable distribution of benefits. If the distribution of nodes in one or more supply chains is inefficient or paralyzed, it may lead to the development of industries linked by the whole supply chain and even the disintegration of industries. Under the economic background of globalization and decentralization, the division of labor and cooperation of the international economy as a whole and the distribution orientation of trade transactions are closely related to the existence and development of the global economy as a whole and the supply chain of each economic individual, which influence and restrict each other.

## **3. Disaster Analysis of Industrial Supply Chain under Epidemic Situation**

Under this background, the importance of the supply chain has been fully reflected and brought into play for the global economy as a whole and for every individual of economic size. The link, distribution, and empowerment of the supply chain have a high utilization value and the prospect of continuous use and continuous improvement of methods and conditions, whether from an overall or individual perspective. From a more macro perspective, due to the impact of the global epidemic on the economy, the supply chain has also been hit hard by the development of the global economy. Through analysis, it can be concluded that the core nature and key points of the supply chain, such as the distribution mode, link classification, and benefit matching, have been impacted by different aspects of the epidemic. Taking manufacturing as an example, after Novel Coronavirus hit the whole world, the manufacturing industries in China, Japan, South Korea, and many Southeast Asian countries all encountered historic stagnation and bottlenecks. Among them, some countries in Southeast Asia, such as Vietnam, suffered a devastating blow to the supply chain of large and small factories. Some small factories that supply each other even began to maliciously create panic and slander among themselves. In order to ensure that they can still make certain profits under the difficult circumstances of the epidemic, In fact, it is not difficult to understand such behavior from the perspective of the supply chain: The impact of the epidemic has led to a closer relationship between business allies in the same supply chain and their own profits. The two have changed from the original "common profit" to the later "grasshopper on the same rope." If one of the supply chains still wants to

obtain certain benefits, it can only cross or even step on the other. Generally speaking, it can only obtain its own interests by damaging or swallowing the others'. In fact, such seemingly unacceptable business practices are not uncommon in various industries where the supply chain is unbalanced or even collapsed due to the impact of the epidemic, especially in Southeast Asia, where the overall development of industries is relatively unbalanced. The forced betrayal of former business allies in a similar supply chain has also led to a severe economic crisis and even the bankruptcy of thousands of bosses [2]. Enterprises should set up and complete their own intelligence information network, keep smooth communication, make scientific predictions on the information that may threaten the survival and development of enterprises in the marketing environment, and analyze the possibility of a crisis and its negative impact on enterprises after it appears so as to adjust their production and operation. The sudden outbreak of emergencies is sometimes unexpected for enterprises. Therefore, aiming at emergencies, the early warning system should play a more important role in sensitively capturing the signals of market demand changes caused by emergencies and giving advance warning to the demand trends that may affect the operation of enterprises on a large scale.

#### **4. The Principles of Profit Distribution Based on Supply Chain**

This shows how important it is for both sides of the supply chain to communicate and cooperate with each other when the economy is relatively depressed, especially when the modern supply chains of various industries are so interlocking and accurately linked. It is worth noting that the distribution of benefits is especially worthy of the overall development of various industries and the cooperation and development of economic individuals. Because benefit distribution is the key step in the development of a supply chain, such as its formation and further growth and expansion, it is most worthy for both parties to sign an agreement or make a common agreement frankly and openly. However, it is particularly important to agree in advance on the important tasks, such as how to cooperate and face the economic crisis or the low tide of the industry, in the form of an agreement.

#### **5. Guidance and Case Analysis of Supply Chain in Emerging Industries**

It is not only the traditional leading industries such as manufacturing that provide a stage when the supply chain plays its role, especially when the epidemic has severely impacted the industry. The existence of some emerging industries also fully and perfectly proves that when the supply chain reaches a new stage in the market, along with a series of market phenomena that have never appeared in history in various fields, the functions of the supply chain are becoming more perfect and comprehensive and have been fully reflected. Take the logistics industry as an example to demonstrate that under the dual effects of the epidemic storm and the impact of the e-commerce industry on traditional physical retail, the logistics industry, like China, can be said to be the most developed country in the world. Several logistics giants, which account for most of the market share, have made corresponding measures to deal with them, especially for the operations and pioneering measures in the supply chain with their internal and industrial allies. For example, Jingdong Logistics has developed a precise delivery method linking shippers and buyers according to the business format under the epidemic situation, and it uses related technologies to increase the advantages of its own self-built platform model, build an integrated industrial ecosystem of "logistics + Internet + big data," and fully maximize the advantages of one link of its own supply chain. In addition, it makes full use of the common power of supply chain partners in aviation, railway, shipping, warehousing, and distribution to maintain and enhance the highly intelligent supply chain network worldwide. With the goal of establishing a global cooperative supply chain link, the whole chain from procurement to production to logistics supply has been optimized and upgraded by using technologies such as the Internet, artificial intelligence, and high-tech software on a global scale. It can be seen that the existence and

optimization of supply chains have had enough influence and change on logistics behemoths like JD.com [3]. In some enterprises, supply chain governance may be the most important factor in determining the success or failure of a company. In fact, the vast majority of manufacturers in the computer and tabulation industry use the same suppliers and the same manufacturing technology, and companies can only compete on cost and service levels. These two key elements form the connotation of supply chain governance.

## **6. Improvement Measures of Supply Chain and Its Significance to National Industry**

With the rapid development of emerging technologies such as artificial intelligence and blockchain and the impact of high-pressure epidemic situations, the ability and resilience of supply chains in all walks of life are increasingly subjected to expectations and tests. Highly intelligent digital technology makes the supply chain once again stand at the forefront of the future industry development wave. Using a specific example from supply chain scientific technology research [4], Supply chain coordination is an important aspect of supply chain management. Based on the supply chain contract with partial returns, This paper analyzes the distribution of supply chain profits from two aspects: the contract model and an experiment. The results show that, In the experiment, the average profit of the supply chain is very close to the maximum expected profit of the supply chain, but the distribution ratio of the supply chain profit in these two cases is quite different. In the theoretical model, the seller occupies the vast majority of the supply chain profit, while in the experiment, the supplier occupies the vast majority of the supply chain profit. There are many similar experiments that combine model research with the development direction of supply chains, which just proves that the influence and development height of supply chains have a certain level. In the past two years, when the world fought vigorously against the epidemic, according to the statistics of the World Bank, "the global economic growth rate is expected to drop from 5.5% to 4.1% from 2022 to 2023." Among them, the aging form, lagging operation, and poor resistance of the global industrial supply chain are the main factors leading to the imbalance between supply and demand and unreasonable distribution of benefits. The epidemic's impact on the supply chain is merely a test for it. Take China and the United States as examples. China's rapid and efficient epidemic prevention policy in the face of the COVID-19 pandemic has often saved the overall economy or good supply chain of a city or even a province. Except for the particularity of Shanghai's epidemic response, most of the other times are worth learning from and emulating. Judging from the global epidemic, using a series of policies and high technologies to build and transform the supply chain more flexibly and efficiently is a point that all walks of life will need to pay great attention to in the future. Unlike China, the United States has taken some measures from another angle when dealing with supply chain issues caused by epidemics and other issues. For example, some countries, led by the United States, have adjusted the supply chain originally biased towards "globalization" into a "regional" supply chain system. Especially after Biden took office, he successively signed supply chain administrative orders such as the "Sustainable Public Health Supply Chain Executive Order" and the "American Supply Chain Executive Order," aiming at some countries with rapid development of supply systems. At the beginning of June, the White House released a 100-day supply chain review report as a follow-up measure to sign the above executive order, especially pointing out that the epidemic crisis and economic crisis are the main causes of serious problems in the supply chain, but at the same time, the choice of public policies and loopholes in financial policies are also one of the causes. It can be seen that establishing a stronger, more flexible, and efficient supply chain is a necessary measure to effectively protect the development of national industries when the world responds to various crises.

## 7. Important Measures and Analysis of Big Countries in Supply Chain Development

Whether from the perspective of the country or the enterprise, it is not negligible to take necessary measures such as "filling shortcomings" and "taking precautions" for the supply chain according to its own system characteristics and core technology advantages. It is worth mentioning that, in the past two years, China has done a good job in this respect. It has quickly controlled the epidemic situation by taking advantage of its unique institutional advantages and keeping it within a controllable range. Under difficult circumstances, it has tried its best to keep the supply chain of material and resource cooperation with other countries in the world running normally, thus entering the second half of the epidemic defense war. It is necessary for a country or an enterprise to accurately understand the next restructuring trend of the world's supply chain and make use of the advanced nature of the system and the inclusiveness and diversification of the market to turn technology into advantages. In addition, it is necessary to take corresponding parallel measures against the decline and outward migration of low-end industries. For example, the United States and other European countries want to use various policies and measures to revitalize the manufacturing industry. As far as China is concerned, although the manufacturing industry firmly occupies the dominant position in the supply chain. But compared with some Southeast Asian countries, in fact, the development speed of China's manufacturing industry has slowed down. The leading power of the supply chain is also weakening at a relatively slow rate. For them, what needs to be done most is to use a series of measures to improve this situation. For example, leading small and micro manufacturing enterprises with high-tech advanced technology in the manufacturing industry should conduct technical exchanges with leading enterprises in the foreign manufacturing industry, establish a new industrial supply chain, and bind it with the global supply chain system so as to avoid weakening or breaking the industrial supply link with developed countries [5]. Supply chain management means cross-enterprise logistics management, which includes the coordination of the whole chain planning and operation activities of different enterprises such as suppliers, manufacturers, wholesalers, and retailers, and means crossing the boundaries of various enterprises and applying system concepts to integrate management in the whole chain. If all enterprises in the supply chain optimize their logistics activities in isolation, the logistics of the whole supply chain cannot be optimized.

## 8. Suggestions for the Future Development of Supply Chain Industry

Enterprises can achieve resource allocation and benefit-driven optimization through supply chain optimization and matching, resulting in higher production efficiency and a perfect enterprise benefit-driven chain. Enterprises have formed a community in the same industry or even cross-industry, which makes new forms of industrial development and competition appear in the market. It can be seen that the existence or absence of a supply chain, as well as the degree of development, greatly influence the interests of enterprises and the future development direction. It can be said that it controls the lifeline of the development of enterprises. In his book *Logistics and Supply Chain Management*, Professor Martin Christopher [6] stated, "In the twenty-first century, there is only supply chain but no enterprise market competition; market competition is the competition between supply chains, not between enterprises." Under the new economic situation severely impacted by the epidemic, trade protectionism is on the rise. Many traditional industries are facing the risk of collapse, and some emerging industries, such as the live webcast blockchain industry, are developing rapidly. The supply chains of all countries in the world are also facing risks and challenges. At the same time, there are also incalculable development opportunities and spaces [7]. Big data analysis at the decision-making level can greatly improve the effectiveness and accuracy of enterprise decision-making. For example, supply chain finance employs big data. Financial institutions can organically combine logistics business flow, capital flow, and information flow generated in related business activities



Under the current new economic situation, the steady development and gradual transformation of the supply chain also needs the attention and joint efforts of all countries in the world, because the development of the supply chain is indeed an important foundation for the smooth operation of the economy and a key link for the further development of the economy. At the same time, it also determines the future key to the development and transformation of many enterprises, large and small.

## 9. Conclusion

Looking at the development situation of supply chains in the global economic market, different countries or individual enterprises have taken measures to improve and develop the supply chain, which is an important development factor, by using their own advantages, disadvantages, and characteristics. This paper focuses on explaining the significance and role of the supply chain itself in national economic development, enterprise survival, cooperation, and other related important tasks. After a series of examples and arguments, it is clear that the supply chain is a tangible hand in these key tasks, which can be firmly connected in series, distributed, and fundamentally change a country's or enterprise's development track and situation, and is a link that cannot be ignored. In addition, this paper also uses several specific examples of countries and enterprises around the world to illustrate that in the future development of supply chains in all walks of life, they will always need to face all aspects of the test, and in the face of these tests, they will need to take some measures to solve the problems. This also shows that the supply chain must not be static but should be continuously improved and adjusted to the most suitable state for development by using its own policy and institutional characteristics according to the specific economic and industrial situation. Moreover, the application scope of the supply chain and related industries is expanding rapidly, and it plays an increasingly important role in trade and production activities. In this article, there may be some important examples of specific development and improvement of the supply chain that have not been mentioned. This requires us to pay attention to the development of supply chains, which deserves the attention of the whole world.

## References

- [1] Fu Qilei (2019). 'Research on Supply Chain Management in ERP Environment'. [Online] Available: [https://wenku.baidu.com/view/97045e16fad6195f312ba6f9.html?rec\\_flag=default&fr=Recommend\\_RelativeRecommend-110368,100359,90377,80166,110361,90363,80139,100194,80163,100354-pc\\_view\\_otherlike\\_new-bcc808c85ef7ba0d4a733b86](https://wenku.baidu.com/view/97045e16fad6195f312ba6f9.html?rec_flag=default&fr=Recommend_RelativeRecommend-110368,100359,90377,80166,110361,90363,80139,100194,80163,100354-pc_view_otherlike_new-bcc808c85ef7ba0d4a733b86) (August 11, 2022).
- [2] Research on Lotus Node Supply Chain'. [Online] Available: <https://www.wenmi.com/jinpin/qpun290000cc.html> (August 13, 2022).
- [3] Case Analysis of Supply Chain'. [Online] Available: <https://www.doc88.com/p-70729005175388.html> (August 19, 2022).
- [4] Xiao Yuming & Chen Xiao & Wang Xianyu (2007). 'An Analysis of Profit Distribution in Supply Chain--Based on the Comparison of Model and Experiment'. *Management Science*. 002. 25-30.
- [5] Liu Zhixue (2002). 'Some understandings on logistics supply chain management'. *Logistics Technology*. 3-114.
- [6] Martin Christopher. *Logistics and Supply Chain Management* (M). Beijing: Electronic industry publishing (2003).
- [7] Zhang Minzhi & Fang kuo (2019). 'Application Analysis of Big Data Based on Supply Chain Management'. *Information Recording Materials*. 20-4.