



Operation Management: Supply Chain Management

Wei Guo

Cardiff University

Guow15@cardiff.au.uk

Abstract. This study examines the optimization of operations in supply chain management and highlights the challenges imposed by the drastic changes in the current global market. The global tariff imposition between countries has facilitated research and consideration into the operational management and assessment of its effectiveness. The paper underlines it's the challenges faced and attempts to provide possible methods to optimize operations in the management of the supply chain.

Keywords: Management, Supply Chain, Global Market

1 Introduction

In the evolving world of today's global economy, economy prosperity and technological innovation has facilitated global economy at an unprecedented rate. Simultaneously, this rapid growth has also brought competition and challenges into the economy. In recent years, the United States has become increasingly in its trade protectionism and has taken more than 600 trade protection measures against other countries in the past 15 years^[1]. In order to curb the technological threat posed by China, it has introduced a series of import and export controls, trade and investment restrictions, foreign student restrictions and financial market sanctions, which have seriously affected the integrity of supply chains and industrial operations in the region. The growing momentum of trade protectionism and the US attitude towards foreign trade is evident^[1]. The change in the economy raises awareness in the research of operational management and its optimization.

2 Supply Chain Overview

Supply chain management, as defined SGSCF (Stanford Global Supply) Chain Forum, refers to the coordination and integration of logistics and information flows between different stakeholders, from suppliers, manufacturers, distributors to customers. Supply Chain management involves the planning, coordination, and operation control to optimize the entire supply chain system. The aim is to deliver the right product to the customer at the right time, with right quality and quantity.

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3 Challenges within supply chain within existing market

With the advent of the era of great change, global competition for commodities is becoming increasingly fierce, new businesses are springing up, and with them comes the rapid renewal cycle of commodities. In addition, the digital economy has led to the digitisation of the industrial chain, building up digital production, digital logistics, digital services, etc. In the post-epidemic era, consumers have become more reliant on the digital internet and are paying more and more attention to the digital service experience. For companies, it is difficult to find out the changing service needs of consumers on their own, especially for overseas companies, who are struggling to find out what customers expect in foreign markets. In the context of localization and regionalization of supply chains, a number of logistics issues have arisen in the consumer market. The transfer of overseas markets has led to the disappearance of companies from their original factories, and the impact of logistics on the prevention of epidemics in various countries during the epidemic has led to a decline in the local end of the supply chain and a significant reduction in the effectiveness of companies in the region, or even the loss of entire regional consumer markets due to the transfer of factories. This shows that the supply chain logistics module is also very responsive to the market^[1].

The effective development of the supply chain relies on the flexible flow of technology within the industry, but strong technological processes sometimes do not have the right to speak within the industry, and some imposed rigid conditions severely restrict the flexible access of companies to the supply chain in the course of their operations. For example, the US-led capitalist countries have suppressed China's telecommunications network facilities by excluding Chinese telecommunications companies, led by Huawei and ZTE, from the supply chain "security scope" through the so-called "security level" classification^[2]. The Chinese telecoms companies will not be able to reach the high end of foreign countries and will only be able to sell to non-developed countries and non-critical high level sectors^[1]. It can be seen that some countries' control of technology stratification in the supply chain has, in principle, undermined a healthy competitive environment in the supply chain and imposed technology stratification under unfounded constraints, seriously affecting the rules of market-based business operations, blocking the exchange and circulation of technology, and thus limiting the space for the survival and development of some enterprises.

At the end of the twentieth century, the trend of economic globalization gradually took shape, the layout of global industrial chains became clear, a clear division of labor and relationships were formed between countries and regions, and a complex supply chain network gradually took shape^[3]. However, in this process, some countries, relying on their comprehensive national power, have a firm grip on the core of the supply chain and occupy the upper reaches of the chain, leaving the rest of the countries to rely on their labor and resource advantages in the lower reaches of the supply chain. This blockade of the industry will undoubtedly put enterprises in less developed regions at a disadvantage in trade^[5]. If the core of the supply chain is missing or discontinued, enterprises will not be able to find suitable substitutes within a short period of time,

which will break the supply chain and seriously affect the capacity of the industry, forcing the industry to make adjustments to the supply chain technology and supply grid.

In the face of unpredictable market conditions, the speed and responsiveness of the supply chain can reflect the soundness of its systems, which are still inadequate in the face of multiple global infectious diseases and complex international market conditions^[4]. Firstly, there is a shortage of raw materials in the supply chain. Influenced by the epidemic prevention policy, which restricts enterprises from resuming work and production, resources cannot be exploited in a timely manner, resulting in a lack of supply of raw materials for the industry and stagnation in the chain from the source. Secondly, domestic and international logistics are inefficient. Extreme weather has become more common in recent years, and the epidemic prevention and control policy is also complex and changeable, supply chain logistics cannot be done in a timely and fast manner for supply purposes, and overtime has become an unusual phenomenon, this side has caused a serious market premium, causing consumer dissatisfaction and a decline in orders and sales of enterprises, which has seriously affected the healthy development of the market economy^[2].

As a result of the epidemic, the market economy has suffered an unprecedented blow to the supply chain, and many industries have been forced to shut down their businesses and production, and there are broken chains in the supply chain, so the supply chain crisis has become the focus of global business operations. But as far as China is concerned, it is not easy to find a good supply chain management talent^[6]. A good supply chain operation management personnel, need to be familiar with all aspects of the supply chain, and has excellent communication and negotiation skills, internal chain planning and management, external coordination, and public relations, and also has a large development pattern, so the overall quality of the staff requirements are very high. Today's economy is developing from high speed to high quality, and today's requirements for products, consumers have shifted from low price to high quality, so for the supply chain of raw materials, storage, logistics, distribution, procurement, and other modules to move from the original rough to professional.

4 Supply Chain Optimization

Incorporating insights gleaned from meticulous prior analysis and extensive literature reviews, the research presents a strategic proposal poised to optimize supply chain management operations^[7]. Delving deeply into the amassed information, the proposal takes a proactive stance in redefining and invigorating the existing processes. By leveraging the identified key areas for improvement, it offers a comprehensive strategy to streamline and enhance the entire supply chain ecosystem. The proposal advocates for a multifaceted approach, intertwining technological integration, process refinement, and collaborative synergy^[8]. It takes into account the challenges and opportunities elucidated through the research, pinpointing tailored solutions that promise to propel the supply chain's efficiency, responsiveness, and adaptability. Through the application of innovative technologies, the proposal recommends the automation of routine tasks,

allowing human resources to focus on higher-value activities that demand critical thinking and creative problem-solving.

4.1 Establishment of a regional logistics chain management platform with information technology as its core

To address the problem of low information sharing in the operation of the regional logistics chain of enterprises, the use of big data, artificial intelligence and other emerging technologies, the establishment of a regional logistics chain management platform with information technology as the core, to achieve real-time monitoring and management of information on all nodes of the regional logistics chain, to promote the development trend of integration of the logistics enterprise market, and to improve the level of information construction of each node of the regional logistics chain. Real-time and efficient analysis and processing of data, real-time tracking and precise integration of logistics business, the establishment of a safe and reliable exchange platform between logistics service providers and logistics customers, and improved operational efficiency of the logistics industry. At the same time, on the basis of fair cooperation, the establishment of the information system realizes the exchange and sharing of information between the relevant departments and institutions of the regional supply chain of logistics enterprises, provides timely feedback on the problems that arise in each link, quickly proposes solutions, strengthens the synergy between the various capitals, creates a good environmental basis for improving the efficiency of resource utilization in the process of logistics products and services, and is conducive to promoting Long-term, synergistic progress of enterprises^[9].

The transparency of information in the platform provides both logistics customers and logistics service providers with high-quality and effective information, allowing them to choose the most suitable object for their needs in a wider range of transactions, reducing the blindness of transactions and greatly reducing the operating costs of logistics enterprises. The transparency of information in the platform provides both logistics customers and logistics service providers with high-quality and effective information, allowing them to choose the most suitable object for their needs in a wider scope, reducing the blindness of transactions and greatly reducing the operating costs of logistics enterprises^[10]. The transparency and openness of the information data is the core basis to ensure the authenticity and security of the enterprise operation, effectively avoiding the loss of economic interests caused by inaccurate information between supply and demand and creating a good marketing environment for the enterprise.

4.2 Overall improvement of the management and service quality of the regional logistics chain of the enterprise

In order to improve the adaptability of logistics enterprises to the new market, in the management process of the enterprise regional logistics chain, it is necessary to carry out timely evaluation and supervision of the quality of enterprise operations and improve the service quality of each link of the logistics chain. Based on the information management platform of the regional logistics chain from the perspective of supply

chain management, the creation of a professional logistics marketing team and the development of differentiated marketing services in response to customer needs are the core aspects that drive the logistics enterprise as a whole forward in the economic market^[8]. The use of artificial intelligence technology, analysis and processing of logistics business data, with low-cost technology to establish a "distance-free" connection with logistics customers, in order to provide high-quality, efficient, differentiated and matching service business supply chain management model, in order to enhance the linkage between logistics enterprises and logistics customers. A series of services and management are carried out in strict accordance with the designed service process and with the final needs of the logistics customer in mind^[10]. This strict control of the management and service quality of the regional logistics chain helps to ensure the accuracy of the services of each link of the regional logistics chain of the enterprise, and can significantly reduce the cost loss rate of logistics products in logistics procurement, transport, turnover, allocation and other logistics chain nodes, balancing the relationship between the quality of logistics services and the operating costs of the enterprise, which is a good strategy to ensure that the operation of the enterprise can obtain the maximum benefit

Logistics industry as one of the important service industries in the new economic era, on the basis of ensuring the precision of enterprise logistics services, it also requires enterprises to pursue differentiated services between different customers in the process of regional logistics chain management. Logistics enterprises need to make good use of the information service platform to develop corresponding logistics services and marketing strategies for the different needs of logistics customers, so as to improve the quality of the integration of the regional logistics chain of enterprises, achieve the service purpose of enhancing the adhesion of logistics customers, and establish a long-term, optimized cooperative relationship with customers. At the same time, the establishment of scientific logistics customer feedback, evaluation mechanism, timely analysis and integration of the enterprise's multi-dimensional service effect and service quality, to effectively ensure the operation and management level of each node of the enterprise's regional logistics chain, in order to improve the overall economic benefits of logistics enterprises^[7].

5 Conclusion

The drastic changes in today's economy have accelerated the restructuring of the global supply chain, prompting changes and innovations in the operation and management mode of enterprises, bringing strong impetus to the development of enterprises. From the perspective of supply chain management, the regional logistics industry is in a phase of transformation and change. As a basic service industry in the trade market, the overall comprehensive development strength of the logistics industry is gradually increasing, but at the same time, it is also facing many difficulties and challenges. At the same time, the restructuring of the global supply chain has become a foregone conclusion, and enterprises should continue to adapt to the new pattern of the supply chain, improve core technology and industrial innovation, promote high-quality

development and upgrading of the chain, and build a sustainable supply benign ecosystem.

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