Research on Integration Track and Quantity System of Agricultural Products Logistics Resources in Low Carbon Environment

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Abstract. At present, my country's agricultural product logistics is still in its infancy, the agricultural product circulation system is still relatively backward, the agricultural product circulation links are too many, the logistics technology level is low, the logistics cost is high, and the agricultural product circulation information is not smooth. In the context of low-carbon economy, in order to promote the integration of resources in the agricultural product supply chain system, optimize the operation between organizations and make it similar to the internal operation of the organization, and realize the rationalization and maximization of overall benefits, supply chain integration should be used Thought, carry out integrated management of agricultural product logistics, build a supply chain integrated agricultural product logistics model, and promote the integration of agricultural product production links, the integration of circulation links, and the integration of the supply chain of production and circulation links.

Keywords: Low-carbon environment, agricultural product logistics, logistics resources, low-carbon economy.

1. Introduction

A low-carbon economy is an economic model based on low energy consumption, low emissions, and low pollution. Its essence is to improve energy efficiency and create a clean energy structure. The core is technological innovation, institutional innovation and the transformation of development concepts. In the era of low-carbon economy, agriculture has also entered the development period of a new type of organic, ecological and efficient modern agriculture, that is, the era of low-carbon agricultural economy and de-oil agricultural economy. The low-carbon agricultural economy requires the least emission of greenhouse gases in the entire value activities of the agricultural industry chain, while obtaining the greatest benefits for the entire society.

The circulation of agricultural products and its logistics efficiency are of great significance to China as a large agricultural country. It is related to the quality and efficiency of the entire macro-economy and related industries, as well as to the industrialization of agriculture itself and the economic benefits of farmers. Huge influence. The production and consumption of agricultural products have their own characteristics. Seasonal production and continuous consumption, regional
production and universal consumption coexist, making the time and space contradictions of agricultural product production and consumption more prominent, so the issue of agricultural product logistics and its efficiency and benefits has been raised. Higher requirement. My country's logistics system is all-encompassing and complex, and the various logistics layouts, environmental requirements, standards and implementations of their own governance are extremely different, resulting in a huge waste of resource allocation in the logistics industry [1]. At the same time, my country's logistics enterprises and logistics resources are quite different from developed countries in terms of scale, technical equipment, operation and management models, and environmental protection concepts. The market demand for logistics service products is also very different from other countries, which increases logistics. Difficulty and speculation in environmental protection operations. In order to further develop the rural economy and increase the income of farmers, we should develop high-yield, high-quality, efficient, ecological and safe agriculture, expand agricultural industrialization, use modern concepts to build agricultural product logistics, actively explore agricultural product logistics supply chain management models, and realize the supply and demand of agricultural products. Seam butt joints to speed up the circulation of agricultural products, enable agricultural products to realize their value and use value, and at the same time realize the value-added of agricultural products in the logistics process, reduce the production and circulation costs of agricultural products, and finally realize the improvement of the overall efficiency of agricultural production.

2. Description and status analysis of agricultural product logistics resource integration

2.1. Concept analysis

Figure 1. Integration of agricultural product logistics resources

The concept of "integration of logistics resources" can be divided into broad and narrow sense. The integration of logistics resources in a broad sense refers to the understanding of the integration of logistics resources from the perspective of government and industry, industry or regional management, emphasizing the overall planning, unified operation and management of cross-enterprise, cross-industry, and cross-regional logistics resources. The research in this area is more about qualitative and interpretative integration from the perspective of a kind of knowledge, concept and principle. The integration of logistics resources in a narrow sense is an understanding from the perspective of supply chains and enterprises, that is, an act of cooperating with related resources at a higher level in order to meet social needs, or, in other words, an act of bringing products or services to market A kind of cooperative alliance between enterprises, which involves the integration and cooperation of logistics
resources. Another understanding is that the integration of logistics resources is one of the four-stream integration of logistics, information, capital and processes in the supply chain [2]. From a philosophical point of view, "integration" is a concept that integrates resources to achieve the Pareto optimal resources of the overall logistics resources (or the realization of the logistics-related industrial system and the integrated economic system) Operational view. Figure 1 shows the method and direction of logistics resource integration.

2.2. Current status and problems of product logistics management informatization

My country's agricultural product logistics is still in its infancy, and the agricultural product circulation system is still relatively backward. The main body of my country's agricultural product production logistics is relatively single, mainly scattered farmers. This kind of single-family production logistics is difficult to achieve economies of scale and its competitiveness is very weak. However, there are more entities in agricultural product supply logistics and agricultural product sales logistics. See the figure for the main forms. 2.

![Figure 2. My country's agricultural product logistics model](image)

2.2.1. Weak infrastructure. In the areas where farmers and agricultural products are concentrated in our country, the network coverage area is small and it is difficult to connect to the Internet. Under the requirements of informatization, the lack of networking in the vast rural areas has brought great investment pressure to the government, and the current situation of decentralized operations has made it more difficult for the government to invest in infrastructure [3]. In addition, in many rural areas, the barriers for the telecommunications industry are relatively high relative to the development of the region, so that many farmers cannot afford to buy computers and pay for Internet access.

2.2.2. The logistics information is not released smoothly. The incomplete infrastructure has prevented many towns and villages from establishing their own information platforms, hindering the communication with the outside world on the Internet, and the incomplete information release channels of the grassroots agricultural departments, failing to make full use of the role of the media to promote the release and dissemination of information. This makes the agricultural product logistics industry chain blocked from the source of information, and affects the further information transmission of each node.
2.2.3. **The standard of information collection is low.** In our country, the logistics information technology widely used in other production fields, such as RFID, EDI, POS technology, etc., has not been fully applied in the field of agricultural products, causing serious problems in the collection of agricultural product information [4]. The imperfection of agricultural product information makes it difficult for agricultural products to be marked in the circulation process, which brings great difficulties to the health and safety monitoring and quality traceability of agricultural products.

3. **Research on the integration of logistics resources and agricultural product supply chains**

In order to realize the resource integration of the agricultural product supply chain system and realize the rationalization and maximization of overall benefits, the idea of supply chain integration should be used to conduct integrated management of agricultural product logistics. Every enterprise and every organization in the supply chain is an independent economic entity [5]. Integrated integration requires a good mechanism to optimize the operation between organizations and approximate the internal operation of the organization.

3.1. **Integration of agricultural production**

Based on the idea of agricultural industrialization, scattered peasant households or production organizations are organized into agricultural production cooperative associations or organizations through associations, or formed into a company system through the form of land transfer; through mechanisms such as farmers’ share of land and dividends, an integrated and large-scale formation of agricultural products production organizations or agricultural companies [6]. Integrated agricultural product production organizations or agricultural companies facilitate the adoption of industrial-style standardized production, so that agricultural product production can form a scale effect. At the same time, an information management system and barcode technology can be introduced to ensure the safety and traceability of the production process of agricultural products, as well as the timeliness of agricultural product information collection (see Figure 3). The main purpose of the integration of production links is to improve the degree of organization of agricultural product production, cultivate farmers to enter the market in a higher organization and main form, overcome the contradiction between small production, large market, and large logistics, and increase the commercialization rate of agricultural products. The added value of agricultural products.

![Figure 3. Integrated model of agricultural production cooperation organizations](image-url)
3.2. Integration of circulation
Open up the value chain and transmission channels of various agricultural industry entities, and form a smooth, unified and coordinated new value chain integration system. The new agricultural industry chain creates new value through the application of innovative connections between the value chains of the agricultural industry entities. In this way, each agricultural industry entity in the agricultural industry chain has its own value creation and transmission channels. The value channel realizes its own value. When the industrial value chain is integrated, each agricultural industry subject must adjust its value chain, break through the value barriers between the agricultural industry subjects, connect the value chains through the connection point, and form a new value channel. The new industrial value chain straightens out the relationship between the various value chains and coordinates the value activities of various agricultural industry entities, so that the overall value created by the agricultural industry chain far exceeds the comprehensive value created by individual entities, and the transmission channel is smoother [7]. It is more convenient to realize the value of the agricultural industry chain.

The intermediary organizations with the above strengths are organized together through the "competition-cooperation-coordination" operating mechanism to cooperate and coordinate with each other to complete tasks that any single logistics entity cannot complete or can complete but are uneconomical, so that the overall effect is better than each The purpose of the sum of individual effects of entities (see Figure 4).

3.3. Value reproduction agricultural industry chain logistics resource integration
Through value rediscovery, the new agricultural industry chain is continuously designed and reintegrated, and finally a coordinated and unified dynamic value chain integration system in a larger area is formed. The new industrial value chain is an interactive system of activities. The integration process of the industrial value chain follows the process of value discovery and re-creation under the structure of the agricultural industry chain. It fully integrates the value chain of the agricultural industry entities in the agricultural industry chain [8]. Continue to design and redesign the agricultural industry chain value system. The connection point of the industrial value chain on the connection of the value chain between the main bodies of the agricultural industry in the industrial chain is conducive to the overall flexibility of the agricultural industry chain to achieve the correct value positioning and strategic orientation. When the benefits of the implementation of a certain agribusiness value chain affect the benefits of other agribusiness value chains, the value connection point between
the subjects of the agribusiness will become a value decision point, and cause the individual to maximize the effect. In order to maximize the effect of the overall industrial value chain, the value chain has a trade-off effect. The value chain of the main body of the agricultural industry chain is connected by the connection point. In the open system, the design and reintegration of the agricultural industry chain are carried out again, and finally a coordinated and unified dynamic value chain integration system in a larger area is formed.

4. Conclusion
Agriculture, as a pillar industry in the development of my country’s national economy, plays an important role in promoting the stable development of my country’s national economy. The development of a low-carbon economy is the theme and trend of the world’s economic development today, and is an eternal topic in the economic development of all countries. To effectively unify modern economic development and ecological civilization construction. The agricultural product logistics model based on the integration of the supply chain can effectively guide farmers to participate in the production and processing of agricultural products in the form of cooperatives and companies at the production level, and promote farmers’ income; at the circulation level, intermediary organizations can greatly improve agricultural products The quality and efficiency of logistics can solve the problem of poor demand under the conditions of economic surplus; at the consumer level, it can promote the realization of the value of agricultural products in a variety of ways and reduce logistics costs.

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