# Research on the Sustainable Development Ecosystem of Rural e-Commerce from the Perspective of Industrial Chain

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**Abstract:** The sustainable development of rural areas has begun to improve the development speed of rural areas by building a professional industrial chain of agricultural products. E-commerce, as the most perfect agricultural development and production system at present, can play a better role. On the basis of analyzing the construction methods of industrial chain, this paper studies the connection between various modules and departments, and analyzes the connection methods in detail. The development path and method of rural e-commerce in the future are analyzed in detail.

#### 1. Introduction

From the perspective of industrial chain, the modules required to be built include downstream industrial system, connecting work system and upstream work system, requiring all work systems to be in a state of high quality and high efficiency, and to do a good job in the benign docking between various work departments. For rural e-commerce, its main task is to supply agricultural products to the market, and agricultural products include rough processing and finishing, so the processing system of products should be brought into the whole industrial chain.

## 2. The Construction Planning of the Concept of Industrial Chain in the Construction of Rural e-Commerce System.

## 2.1 Industrial Chain Planning

The planning of the industrial chain needs to be analyzed in three aspects: the downstream supply department, the connection department and the upstream sales department, among which the production department includes the farmer, the agricultural product processing enterprise, the connection department is mainly the logistics enterprise. The upstream sales department includes professional agricultural product sales enterprises, and also includes the quality supervision department [1] of some agricultural products. In order to meet the current market demand and the development process of the rural e-commerce, a centralized supply and demand system of agricultural products can be built, the length of the whole industrial chain can be shortened, the sales quantity of the products can be improved, and the specific construction process to be based on the downstream supply side of the supply product type, supply product quantity and other parameters analysis.

## 2.2 Design of the Work Module

The design of the work module should complete the corresponding optimization work according to the new standards proposed by the market for agricultural e-commerce in the new era. For the supply and marketing system in the new era, on the one hand, it requires higher logistics efficiency, on the other hand, it also needs to process agricultural products reasonably. This paper holds that under the working concept of the new era, all kinds of agricultural products produced in the system should be properly handled. For example, for a certain agricultural product, the rough processing process includes the cleaning, constant temperature and transportation process of agricultural products. All projects need to be highly scientific, while for the sales of distribution suppliers, secondary development is included. In the design process of all working modules, all parameters

should be fully configured according to the use and transportation requirements of the agricultural products.

## 2.3 Structure of Relevant System

The construction process of the relevant system needs to ensure that it can meet the professional standards and improve the structural accuracy of the system. Usually, the other items of the system include the quality inspection department, the business planning department, the centralized department of agricultural products, etc., all of which should be based on the natural conditions of different rural areas, the characteristics of agricultural products and other parameters. Study whether all these factors can be applied to the subsequent management system. In general, the construction process of the industrial chain, these departments exist as an auxiliary system, but its effect on the whole industrial chain cannot be ignored.

## 3. Upgrade of the Concept of Industrial Chain in the Sustainable Development of Rural e-Commerce

## 3.1 Upgrading of Product Promotion System

Product promotion is an important problem faced by rural e-commerce at present. It is precisely because of the imperfect promotion system that a large number of products cannot be sold in time, and even cannot be fully understood by the market. In the specific working process, this paper holds that the upgrade of the product promotion system should adopt new promotion ideas on the basis of the existing construction departments. The original promotion ideas mainly explain all kinds of information to consumers through e-commerce platform. In the future, we can use more high-end means to build the brand of agricultural products, and use the brand effect to drive the better sales of agricultural products.

## 3.2 Product Processing System Upgrade

The upgrade of the product processing system mainly includes two modes of rough machining and finishing. The paper holds that the two kinds of processing modes need to be reasonably planned in the future[2]. For rough machining, some of the specific agricultural use and the process complexity are high, to consider how to reduce the processing difficulty of consumers without damaging the freshness of the agricultural products. For the finishing system, a professional production system has been developed, for example, after the starch-based agricultural products are processed into wheaten food, the most high-quality and high-efficiency treatment means can be adopted in the use process of the two processing systems, and according to the current market demand, and market planning to study the specific processing systems and processing patterns of all these foods and eventually put them into the market.

## 3.3 Upgrading of Product Marketing System

The upgrading of product marketing system means that: On the one hand, according to the current market demand for various products, on the other hand, according to the type and characteristics of local agricultural products, the most efficient and orderly processing scheme is adopted. For example, the current market demand attaches importance to healthy diet and low calorie diet. Through the analysis and research of this market demand, the industry chain can better improve the local income and promote the development of the whole e-commerce system by making flour food. In the future, it is necessary to research and develop all kinds of refined food types with konjac as raw materials, so as to better seize market share in the new era and make the whole supply chain system obtain higher capital reserves.

## 4. The Construction of Sustainable Development Ecosystem of Rural e - Commerce from the Perspective of Industrial Chain.

## 4.1 Upgrading of the Agricultural System

The upgrading of agricultural system means that according to the local natural ecological environment and the current planting crop types, through the comprehensive collection and collation of market information, this paper summarizes the reform mode of agricultural production system in the future, and finally makes the local agricultural system get better development. For example, in the process of agricultural system construction in a certain area, considering that the people of our country pay more and more attention to food safety, so we begin to develop the cultivation of green organic vegetables, the cultivation process needs to consider the residues of all kinds of pesticides and fertilizers in agricultural products, the growth of vegetables and the prevention and control of diseases and insect pests under the use of non-chemical pesticides. On the basis of all these parameters, the climatic environment and soil environment in this area were analyzed, and the suitable types of agricultural products were determined, and the reasonable methods were used to cultivate this kind of crops. In the specific sales process, it is necessary to ensure that the price increase of green organic vegetables, and finally put into the market in the whole sales process is limited, which requires improving the work efficiency of other departments and reducing the cost in the processing process. By providing low-cost and high-quality agricultural products to the market, the market competitiveness can be better improved.

#### 4.2 Integration of Logistics Systems

The integration of logistics system does not necessarily refer to the transportation of agricultural products cultivated by farmers to consumers directly, but also includes the connection between each supply chain node. In general, in order to control the cost, the development mode based on supply chain enterprises should be selected according to the local agricultural development quality and actual operation level. For example, in order to reduce the operation cost, a large number of agricultural science and technology enterprises in China have set up head companies and their subsidiaries in the agricultural system development region. In the process of operation, enterprises can buy agricultural products from local farmers through less cost investment, and this model can continue to be adopted in the future. But because of the new production chain, except Including this kind of enterprise, but also includes the specific marketing shop, and the store includes the online shop and the offline shop, which inevitably needs to use the professional logistics transportation work to improve the transportation quality of the agricultural products, so in the logistics system integration process, can establish the specialized cooperative relationship with this kind of company, which needs to limit the content including the transportation cost control, the transportation time control. All these parameters need to be investigated and analyzed in practice before we can determine whether we can establish a cooperative relationship with the logistics enterprise. When it is found that the logistics enterprise cannot meet this kind of demand, it can be considered that the logistics enterprise cannot meet this kind of demand, so that the logistics enterprises cannot be incorporated into the entire production chain.

## **4.3 Processing of Products**

the processing and processing of the products need to adopt professional technical means to improve the processing level of the products according to the characteristics and the market demands of various crop resources, such as for a certain type of fruit, In addition to direct eating, it also include that production of fruit juice and the production of a dehydrated snack. in order to improve the development level of the rural e-commerce in the future, it is possible to consider the construction of a professional production brand using the fruit as a raw material, and the brand is required to improve the quality of the fruit raw material in order to improve the influence of the market so as to meet various quality detection standards, At the same time, there is also a need for higher credit, such as follow-up in that production process of the product, the fruit juice product can

completely adopt the fresh-pressed mode to finish the production work, This product will attract a lot of attention, can use this opportunity to launch this product to the market, actively seize the market share.

## 4.4 Marketing of Finished Products

On the one hand, the marketing process should reasonably configure the propaganda language on the display interface of the e-commerce platform, on the other hand, it should also pay attention to the offline propaganda experience. In the platform of online construction, because the main consumers are young groups, we can use the current focus of this group and the content of interest to complete the creation [3]. And for the offline promotion platform, mainly in the gathering place of various people to start the way of building shops, in a relatively short period of time can let all consumers free experience, and then for the paid experience, and finally the store will be converted to the same online platform products sold at exactly the same price, through this. One method can be to let e-commerce platform drive the development of offline sales platform.

#### 5. Conclusion

In summary, in the current agricultural system development process, it has begun to construct the industrial chain by building the rural e-commerce system. In the construction process, it needs to consider the downstream agricultural product suppliers, the connection system of each node, the upstream agricultural product processing enterprises and distributors, etc. In the new e-commerce system required to be built, it is necessary to do a good job in-depth docking among all links, and adopt such models as joint construction of online and offline platforms, promotion of green organic vegetables, etc. Through the construction of professional brand to improve the level of development.

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