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Research Article

Relational Decision Model Building for the Purchase of Rural Fresh Products Based on the Supply

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The achievements of China's reform and opening up in the past 40 years have contributed to the great transformation of China's economic model and accelerated industrialization reform. With the emergence of the supply chain model, the traditional resistance to economic development is reversed, and fresh impetus is injected into economic development. Fresh products are the primary target of the supply chain service, so it is of high academic significance to study its stability. Fresh products, as the principal components of agricultural products, have supported half of the operations of the supply chain model. It is of great help to study the purchase of fresh products in various regions by analyzing the Internet economy of purchasing from a new perspective of the relational decision model of fresh product purchasing. Based on the reasonable planning of the supply chain, this model can support the economic profit of fresh products quickly, which will be analyzed and discussed in this paper.

1. Overview of the Economic Model of Fresh Rural Product Purchasing in the Context of the Supply Chain

1.1. Definition and Value of the Supply Chain. The supply chain refers to a resource platform that blends core resources quickly. It integrates parts or sporadic resources, keeps close ties between the complete supply and delivery in the end, and develops a complete closed-loop from the source of the product, to the sales and then to the ultimate user evaluation [1]. From the concept of the supply chain, the main parts of the supply chain can be divided into organization planning, implementation acquisition, storage and communication, channel sharing and service evaluation, which are also the core parts. Each supply chain model is established based on these elements. The management philosophy of the supply chain is to serve the market, adjust the relationship between the producer and the demander in time according to the market demand, so as to achieve the goal of balanced development. Therefore, the supply chain can be successful because it can coordinate and adjust the resources and rhythm of each link, and it can seamlessly connect each link according to the supply or market demand, thus forming a complete development mode.

1.2. Research Status at Home and Abroad. It has become an essential trend for the information transformation of the agricultural sector to develop the network for the economic model of fresh product purchasing under the supply chain. The construction of the logistics network platform of fresh product purchasing under the supply chain has dramatically promoted the online trading scale of fresh products and improved the trade circulation rate of fresh products in the course of modernization. The new business model has changed the traditional fresh product trading mode [2]. In China, rural areas are major grain and vegetable producing areas. Due to the lack of effective direct marketing channels for land planting in rural areas and fresh products, fresh products tend to be stranded and unmarketable in rural areas. The logistics network platform can be used to sell fresh products and open up diversified sales channels, so as to lay a foundation for the opening of the direct marketing channels for fresh products. The establishment of rural fresh logistics

channels has multiple meanings. First, it can reasonably control the production standards and quality of fresh rural products. Then, it can also strengthen the information combination and electronic channel construction by using the mode of the rural cooperative logistics network, so as to develop a powerful way of communication. In addition, the use of fresh procurement supply chain logistics network is conducive to the promotion of fresh products. In this way, it can improve fresh products in rural areas to enhance the popularity of its local specialty products, increase the brand value of fresh products in local rural areas, so as to increase the added value of fresh products [3].

1.3. Significance of Building the Relational Decision Model. In the society of information transformation and development, there are 800 million Internet users in China, and Internet consumption has become the first mainstream driving force for consumption. The average daily amount of online consumption can exceed 2 trillion Yuan. Agricultural and sideline products dominate rural commodities. In order to transport these fresh products to the city in the traditional way, they need to be distributed and transshipped by at least three middlemen. However, based on the current Internet Plus model, fresh products can be transported directly from farmers to consumers' homes in just one or two days by the operation of the logistics network platform, thus becoming the direct sales model of C2C. The establishment of the logistics network platform of fresh products enables convenient transactions to become much more authoritative and safer. Moreover, such a safe transaction mode allows people to feel more at ease when buying and provide a safe environment for consumers to purchase these products [4].

It can be seen that the construction of the platform is essential for the development and transformation of current information. Currently, more and more industries are transforming based on the concept of Internet Plus, and the logistics network for fresh product purchasing under the supply chain is gaining more and more impetus for development. Under the supply chain, many of the logistics networks for Fresh Product purchasing have been transformed and developed into information-based networks due to the increasingly strong impetus, and the logistics network platform built has become more and more valuable and played a more and more essential role [5]. Thus, there have been new channels for the sales of fresh products in the future market, and the innovative e-commerce model for fresh products is combined with the traditional development model.

The article is divided into five parts. The first part describes the background and value of supply chain, and summarizes the rural fresh logistics related literature research. The second part analyzes the purchasing value of rural fresh product supply chain from multiple perspectives. The third part analyzes the problems and causes of rural fresh products purchasing supply chain. The fourth part constructs the relational decision model for the purchase of fresh rural products, and carries on the empirical test. Finally, the conclusions and suggestions are summarized.

2. Analysis of the Purchasing Value of the Supply Chain for Fresh Rural Products

2.1. The Value of the Fresh Cycle Model of the Supply Chain. The logistics network platform for the purchase of fresh products in rural areas is mainly established to improve the economic development momentum in rural areas, increase the sales volume of fresh products and provide more sales available for the sales of fresh products. Thus, it can improve the economic development mode in rural areas, promote the sales volume of fresh products in rural areas, and transform the driving force for the economic development of fresh rural products from traditional passive sales to modern information-based sales, and continuously strengthen the construction of fresh product brands in the local area. In addition, the integrity value of the logistics network platform should be improved, and the courses for the practice of the logistics network for fresh product purchasing under the supply chain should be offered to provide references and suggestions for the development direction of every rural area and peasant households [6].

First of all, the logistics network platform for fresh product purchasing under the supply chain improves the lives of rural residents, because it recognizes and supports the development of fresh rural products and agricultural economy. And it uses the power of Internet information development to promote the transaction mode of fresh rural products, increases the trading scale and expands the traction types, and changes the trade structure of fresh products. In addition, we should put forward the specific strategy of constructing the logistics network for fresh product purchasing under the supply chain, so as to enable the peasant households to be lifted out of poverty [3].

Second, the logistics network platform for fresh product purchasing under the supply chain improves the lives of rural residents, since it enables the logistics network of rural areas to make constant progress. In this regard, rural residents can get rich under the guidance of science and technology, and better maintains the relationship between all walks of life under the premise of protecting farmers' profits of labor service. It puts forward the development idea of fresh products trade in rural areas. It proposes the development strategy for transformation into the Internet economy by using the innovative model of the rural economy so as to make progress towards the scientific strategic planning and channel of fresh products [7].

2.2. The Information Management Value of the Supply Chain. The main purpose of the information management value of the supply chain is to enhance the management efficiency of the supply chain and improve the overall cooperation ability of the supply chain through information technology, reduce the operation risk of the supply chain platform and increase the yield. Through this advanced network architecture model, the convenience value of all aspects is considered in the construction of the fuzzy fresh product purchasing logistics network. In the case of a particular selection, it is customized for some high-end

VIP customers. These VIP customers tend to put forward stringent requirements on the fresh product logistics network, such as high requirements on the details of vegetables. They require that the quality of vegetables delivered should reach the AAA level of quality supervision [8]. In vegetable distribution, it is required to add exquisite packaging to vegetables. Moreover, when such vegetables are distributed to high-end consumer groups, the packaging of vegetables should be protected against corrosion and fall. When vegetables are distributed through the rural fresh logistics network platform, all the costs are beyond the average vegetable distribution standard. However, there is no need to worry about the costs of VIP customers, because they pursue the quality of fresh products and will offer a high price that exceeds the market price. It is of great significance and value to create and develop such special needs, making it essential and highly valuable to build a fresh purchasing logistics network platform.

2.3. Value of Security and Practicability. Security: on the platform, efficient information storage technology is combined with data technology to protect the stability of the logistics network platform, and the stability of security policy operation and security data interaction should be advocated. Moreover, in the internal access of the platform, it is necessary to maintain the data docking of information technology to avoid the illegal intrusion of hackers. At the same time, the data of different authorities should be compared and linked [9].

Practicability: the design of the system should aim at satisfying the members' needs for convenient and quick transactions on the Internet and take the convenience of users as the principle to make the transaction interface simple, practical, intuitive and easy to operate. Moreover, the process of delivery should be easy for the user to master and operate [10].

2.4. Value of Advancement. The most advanced computer technology, data communication technology, network platform construction technology and software development technology are adopted to build the supply chain platform. The advanced technology application benefits from the modernization of information technology and the realization of information transmission on the Internet platform.

2.5. Value of Reliability and Scalability. The system is carefully designed and developed. According to the specific design content, we should choose the appropriate method and determine the development mode. Through the cooperation of hardware products and software products, a practical application system is developed. On the one hand, it can guarantee the quality of system development, and on the other hand, it can improve the stable operation of the platform database [11].

3. Feedback on the Problems in the Purchasing Supply Chain of Fresh Rural Products

3.1. A Review of the Proportional Model of Risk and Return. In the construction of the purchasing supply chain of fresh rural products, we need to think about how to accurately implement and contact each link of the purchasing supply chain to reduce the early risk of rural fresh products purchasing, such as how to improve the quality of fresh products, how to package fresh products, and how to design the brand of fresh products. In the design of the purchasing supply chain of fresh rural products, we should consider the medium-term risk in the construction of each module. Some experience is needed for the storage of fresh products in rural areas, the expansion of marketing channels, and the negotiation between the supplier and the buyer. Furthermore, it is also necessary to think about how to use the information-based purchasing supply chain to solve this problem. Finally, we should control the risk in the later stage, reduce the bad fruit rate in the course of logistics distribution, and improve customer satisfaction. As for the thinking and feedback of the purchasing supply chain of fresh rural products, we combine the basic development of the purchasing supply chain of fresh rural products to the maximum extent. According to the statistical relationship, the following formula can be set:

$$\rho(i) = \frac{n_i}{n}, \quad i = 0, 1, 2, \ldots, L-1. \tag{1}$$

In formula (1), ρ represents the supply chain risk model, and i represents the risk coefficient, ranging from 1 to the indefinite $L-1$. The higher the risk is, the greater the coefficient will be. n_i/n Represents the function of risk proportion, where n_i represents the judgment value of current risk, and n represents the parent value, which represents the overall risk.

$$E_{k\,(k=1,2,3,\ldots,L-1)}. \tag{2}$$

In formula (2), E_k is expressed as the overall valuation of phased risk, in which E stands for valuation, and k is the number of stages. The number of stages is tentatively fixed at three stages: early stage, middle stage and late stage. According to the development trend of the supply chain in the future, it can be subdivided into more stages and regions, which will not be considered in this study. But it leaves room in the formula. So it is expressed as $E_{k,}$ and the value of k involves an infinite interval from 1 up to $L-1$.

According to different risk types in different stages, they can be classified into the following formula (3):

$$\sum_{i=0}^{L-1} \rho(i) = \sum_{i=0}^{L-1} \frac{n_i}{n} \times E_{k\,(k=1,2,3,\ldots,L-1)} \le 1. \tag{3}$$

In formula (3), the risk was verified through the overall judgment of the formula $\rho(i) = n_i/n$, $i = 0, 1, 2, \ldots, L-1$. The product of the risk coefficient $\sum_{i=0}^{L-1} n_i/n$ and the valuation of staged risk $E_{k\,(k=1,2,3,\ldots,L-1)}$ is less than or equal to 1. If it is less than 1, it indicates low risk. The lower the product is, the lower the risk will be. Thus it can be known that the relative

value of the income obtained will be relatively high. On the contrary, the higher the value is and the closer it is to 1, the higher the risk will be, and the lower the relative return will be. If it is equal to 1, the risk is 100%, and the return is 0.

3.2. Model Analysis of Sample Data of Returns and Risks. In order to better evaluate the data relationship between benefits and risks, MATLAB18.0 (2018 Version) was used as the modeling software in this paper, and the MATLAB 3D Curved Surface SURF was used to establish the evaluation model, as shown in Figures 1–3. Under the transmission mode of the supply chain with corn as the fresh products as the case, sampling survey method was adopted to conduct model analysis for the ten risk assessment points in the supply chain with fresh corn and the returns and risks of the ten stages were sampled and compared. The data are shown in Table 1.

Combined with the data in the table, the MATLAB 3D Curved Surface SURF was used to establish the evaluation model, and the focus was put on the comparison of returns and risks. Through observation, it can be found that when the risk value of the stage is low, the output value of the corn fresh supply chain will increase. When the relative stage risk value is high, the output value of the corn fresh supply chain will decrease. Therefore, the two are inversely correlated, as shown in Figure 1.

In the construction of the model, the model was evaluated in different ways in accordance with the different valuations of staged risk $E_{k(k=1,2,3,\ldots,L-1)}$ involved in the model. The evaluation code is as follows:

```
function createfigure(zdata1)
%CREATEFIGURE(zdata1)
% ZDATA1: surface zdata
% Create figure
figure1 = figure;
% Create axes
 axes1 = axes("Parent," figure1);
hold(axes1,"on");
% Create surf
surf(zdata1,"Parent", axes1);
view(axes1,[−7.49999999999999 16.3867704280156]);
grid(axes1,"on");
```

As described in the model code synthesis above, the location ("Parent", figure1) is the specific location of the staged risk valuation $E_{k(k=1,2,3,\ldots,L-1)}$. The risk values vary according to the location.

Combined with the analysis results, we can see that there is a reverse correlation between the staged risk valuation and returns. However, it remains to conduct further tests on whether there is a significant correlation between the results. It is known that the model is stable.

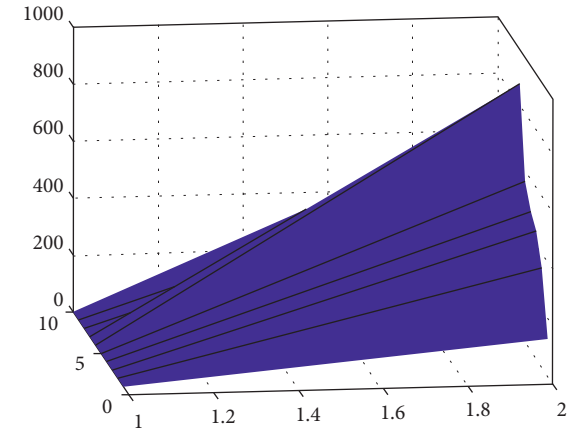

Figure 1: SURF evaluation model for staged risks and returns.

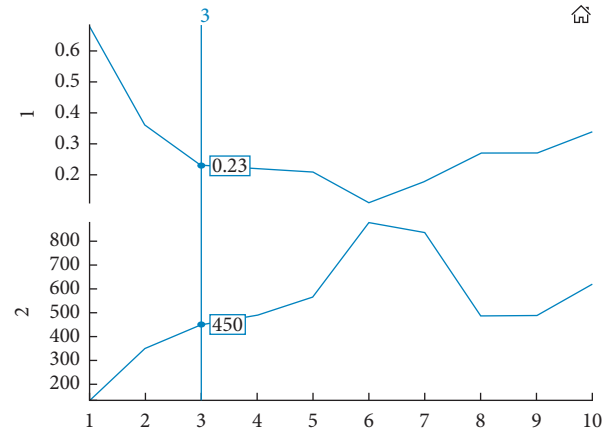

Figure 2: Linear superposition model of risk coefficient and return (1).

4. The Building of the Relational Decision Model for the Purchase of Fresh Rural Products

4.1. The Framework of the Supply Chain Model of Fresh Products under the Network Mode. In accordance with the requirements of the development of the Internet Plus strategy, a fresh logistics network platform was established by using modern technological means based on the principles of transparent operation, standardized operation, strict management and honest operation. It takes a long time to build such a fresh logistics network platform and develop it into a fresh purchasing network platform based on the supply chain that can offer integrated services and solutions for the acquisition, sales, storage, transportation, inspection, financing and information consulting of fresh products. According to the above data, the MATLAB stackedplot model was carried out in this case for linear superposition model analysis, as shown in Figure 2.

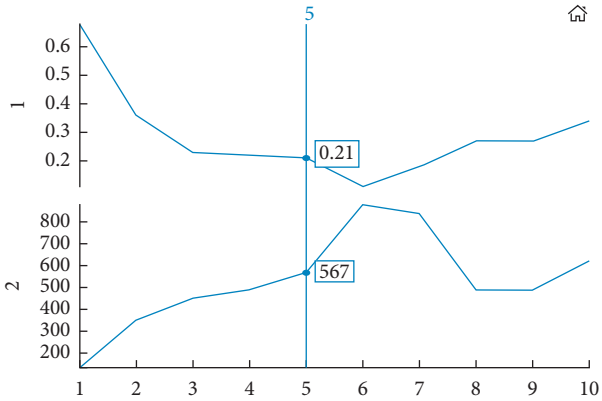

Figure 3: Linear superposition model of risk coefficient and return (2).

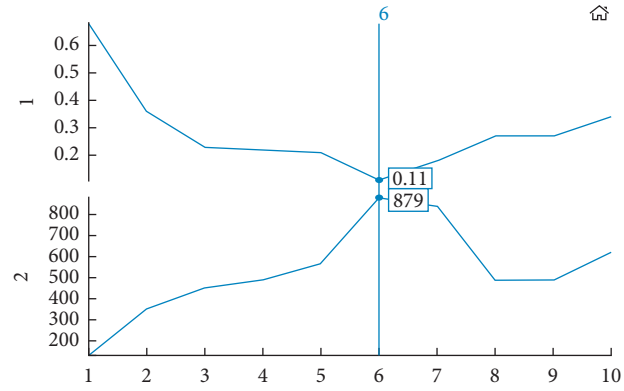

Figure 4: Linear superposition model of risk coefficient and return (3).

Table 1: Random sampling statistics for risk valuation and return.

Risk valuation (coefficient)	Return (10,000 Yuan)
0.68	130
0.36	350
0.23	450
0.22	490
0.21	567
0.11	879
0.18	838
0.27	487
0.27	489
0.34	621

First of all, when the risk value of fresh products purchasing chain is 0.23, the profit value is 4.5 million Yuan. The supply chain model of fresh products highlights the "penetration" of management. In order to change the current decentralized purchase and sale operation mode, we should gradually put the rotating purchase and sales businesses on the whole system into the online businesses. Moreover, on the trading platform, through full competition and cost reduction, the head office should directly control the purchase and sales price, contract execution, and fund collection and payment of directly affiliated enterprises, reduce risks, improve management penetration, and build the platform into a purchase and sales management platform of the grain storage system to further reduce risks. When the risk coefficient is reduced to 0.21, the return is 5.67 million Yuan, as shown in Figure 3.

It can be seen that when the risk coefficient decreases by 0.02, the income increases by 1.17 million Yuan. In the construction of the supply chain of fresh products, the regulatory power of fresh logistics network will continue to be strengthened. In order to give full play to the operational advantages of a fresh logistics network, we should form an overall joint force through a unified organization to enhance the ability of the supply chain system to grasp the market and play a certain role. Moreover, the risk coefficient should be further reduced and controlled. In the third stage of construction, the risk coefficient is reduced to 0.11 and reaches the bottom value. At this time, the return also reaches the peak value of 8.79 million Yuan, as shown in Figure 4.

There will be risks, and they will increase with the increase of market capacity or scale. We should pay attention to the cultivation of enterprise reputation in the construction of the supply chain platform, continue to upgrade the core concept of the performance capability of the enterprises engaged in fresh logistics services, and control and manage their trust and their own credibility. In addition, we should adopt standardized procedures to realize sunshine operation and standardized operation, lead the purchase and sales business to become more transparent, avoid the hidden rules of the market, and improve the performance and execution of transactions. In this way, we can control the risk coefficient of the platform within a standard value and strive to achieve the balanced development of risk and return, as shown in Figure 5.

In Figure 5, we can see that in the above model analysis, the risk coefficient is 0.34, which is higher than that of the first stage, and the return is 6.21 million Yuan, which is higher than that of the first and second stages. Such an equilibrium state is a standard value space maintained by risk coefficient and return. In the process of constant maintenance and risk control in the later stage, we should pay attention to the attraction of the platform, build the brand value of the platform, and constantly improve the basic content of the integrity construction of the supply chain system. Through the construction of the supply chain system, the system should be equipped with the perfect services in terms of information consultation, capital settlement, logistics transportation, agent storage and inspection, so as to provide convenience and value-added services for customers. The sustainable development power of fresh products should be assessed according to the indicators, such as transaction scale, transaction quality, merchant reputation, performance stability and other indicators, so as to create an excellent transaction ecological chain, thereby achieving the maximum of comprehensive benefits.

4.2. Channel Collection and Positioning of Fresh Products and the Establishment of the Supply Chain. Channel collection of fresh products is a major prerequisite for the development of the supply chain model, and only those fresh product

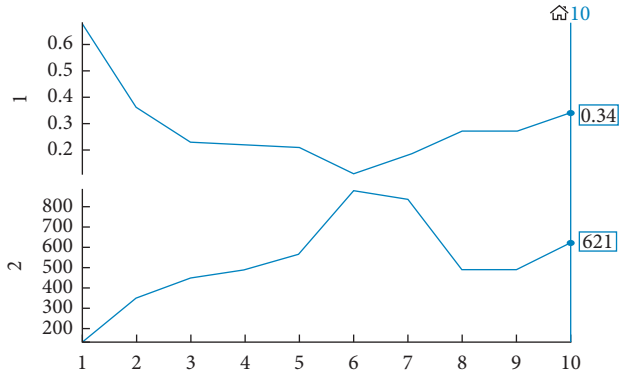

Figure 5: Linear superposition model of risk coefficient and return (4).

distributors that have been fully recognized and approved can be effectively licensed to get their products online. Channel collection and positioning of fresh products mainly involves the quality of agricultural products, which has a separate review mechanism, as shown in the paragraph below.

The collection and positioning of the supply chain are reviewed by certain basic elements of the supply chain. Farmers who produce fresh produce choose better and more network services in their lives in order to increase the sales of their products and improve their economic benefits. In order to form a long-term and stable supply relationship with farmers, the supply chain needs to promote the brand publicity of fresh farmers, pay attention to promotion services in network marketing, and adhere to the green economic value of the original ecology of farmers in the process of selecting the suppliers. The platform should comprehensively consider and promote the original ecology of fresh products, the brand of the origin of the products, certification of organic products and certification of geographical protection marks. Moreover, it should be able to provide farmers with quality and preferential services, such as recommending and purchasing some imported fertilizers or packaging materials.

Secondly, the merchant platform of the supply chain should build a good reputation and maintain its own position. While satisfying consumers, it should also supervise the merchants providing fresh products, and reduce the complaint rate. When selecting fresh products, the platform should consider ranking the merchants for information push on the homepage of the website. The volume of supply, especially the rate of supply of goods, is graded based on past credit ratings. A reputable merchant has a rating of Grade S. Once any merchant receives any complaint or adverse feedback, the merchant should be degraded to Grade A, and then be extended to Grade B. Finally, such merchant will be canceled from supplying fresh products. In the induced behavior of the supply chain, the supply chain platform can consider to build a point system, which can be used to enhance the reputation of merchants or conduct free service year or goods exchange on the point platform.

Thirdly, the connotation of fresh products should be thoroughly excavated. In modern society, the pace of life is fast, many people's dietary concepts have been updated continuously, and people need to eat fresh food as much as possible. If we want to meet people's physiological needs, the food supply chain is not required to supply the food, but it should also design some cultural packaging and excavate some connotations. For the fresh supply of cream strawberries from the Dreamland, because of the exquisite packaging of the products, each box of strawberries also contains the text introducing the cream strawberries, and it also publicizes some contents about local poverty alleviation and cultural promotion. In this way, the promotion of culture and humanistic care has achieved the acme, and many consumers flock to buy fresh products with exquisite packaging and certain cultural connotation. With the help of cultural communication and policy-oriented propaganda and guidance, the purchasing and sales of fresh products in rural areas will be more assured. Moreover, it can bind the quality of agricultural products with the reputation of farmers, endow them with vitality, and let them go abroad and finally go global.

Finally, we should focus on the standardization of fresh products. The standardization process and specific implementation rules of fresh products should be carefully discussed and checked. At present, the supply chain platforms have formulated relatively perfect standards for the launching and supply of fresh products based on the relevant provisions of the development of e-commerce of agricultural products in China, and they can be recognized and audited by various international standards certification. In short, the top priority should be given to protecting the quality and added value of fresh products.

4.3. Quality Control System of Raw Materials for Fresh Products in the Supply Chain. The quality control of the raw materials of corn products in the supply chain should follow the relevant regulations of the Commission of Science, Technology and Industry for National Defense of the PRC and the Ministry of Agriculture and Rural Affairs of the People's Republic of China. For the chemical inspection and quarantine related to the production process and planting process, we should do a good job in detail identification and make a feasible standardized management plan for the quality control of raw materials of corn products. Under the model of the supply chain, purchasing economy gives full play to this function.

When purchasing raw materials of corn products, we should give priority to the cultivation of corn products and real-time monitoring of their health. On the one hand, we should deal with the research of organic rice, and on the other hand, we should test the specific technology of raw materials and application methods. In the process of testing, we may consider cooperating with the laboratories of local agricultural universities or local academy of tropical agricultural sciences to test the data and control the technology of healthy corn products.

For example, in the detection of cultivation technology, the first step is to test the lime-soaked seeds. Generally, seed soaking with quick lime is used to kill the harmful bacteria on the surface, which is a rapid insecticidal method in the course of corn planting. In addition to removing harmful bacteria, the proportion of lime should be controlled, and seed soaking with chemical lime or even chemical agents should be eliminated. Chemical test tends to be a vital inspection method for the safety of fresh products. The second step is to grow seedlings. Seedling growth with fried soil is an effective method for raising seedlings by high-temperature heating. It not only kills harmful bacteria in the soil with heat but also causes the eggs and grass seeds to die gradually during heating, so as to recover the fertility of the soil. With this method, soil impurities can be quickly eliminated, and corn can be planted quickly. But it is necessary to detect the use of chemicals and whether they exceed the standard. The forbidden categories of fungicides should be controlled and screened, and the proportion of herbicides used to control diseases, and insect pests should be controlled, which is unacceptable for the supply of corn products. Third, organic fertilizer should be released in the planting environment. Manure fertilizer is generally selected as the basis, or some organic fertilizers certified by relevant agricultural departments are mainly used to provide fertilizer and nutrients for corn products. If it is found that chemical fertilizer or even some chemical reagents are used to achieve the fundamental goal of planting corn products, it should be removed and reported to the local agricultural department for treatment.

In the control of these details, the interaction between corn products and organic food should be treated to reduce the pollution and damage to the environment. There should be a set of natural and harmonious ecosystem assessment methods, and the growth of corn products should be monitored. If necessary, the biological identification of genetic engineering should also be made. Only by using these tools can we make corn foods better at providing consumers with a healthy diet. In this way, a stable fundamental platform can be available for the purchasing of corn products in the supply chain.

4.4. The Screening and Audit Module of Fresh Product Purchasing in the Supply Chain. By drawing lessons from the experience of other mature business websites, the platform should provide necessary information consulting services while providing transaction functions. The platform should timely track the price change policy of the fresh logistics network issued by the State Administration of Commodity Prices, adjust the unit price of the products in the fresh logistics network of the e-commerce platform, organize the analysis of the supply and demand situation of grain, and release the information of grain purchase and sale regularly. At the same time, the platform should strengthen the application of mobile Internet technology, develop mobile clients, and realize the real-time operation of information release, settlement and business processing. It should improve the query and audit function of the platform and enables the head office and its subsidiaries to monitor the launching, contract signing, execution, credit sale and prepayment of the enterprises on the platform online.

The balanced development and harmonious development of the ecological environment are the preconditions for the production and supply of fresh rural products. The harmonious coexistence of man and nature is of great significance to the long-term planting and production of fresh products in rural areas. It solves the problem of the balanced development of the natural environment and sets up a correct view of development among the public. The most important task is to improve the fresh distribution network. To improve the supply chain of the fresh logistics network, on the one hand, it depends on the support of government policies, and on the other hand, it needs to rely on the advantages of the Internet platform. We should create a new development direction of the supply chain of fresh food logistics network guided by the Internet Plus strategy, create fresh food brand belonging to rural areas by using the Internet, and carry out We-Media marketing with the help of logistics network and Internet platform [12]. In China, there is no brand marketing in the process of circulation and development of a fresh logistics network market, and there is no specific solution and specific implementation strategy for the fresh logistics network brand. According to the specific ideas of fresh logistics network market circulation, we should design a proper idea and path for brand marketing. We should build the brand of a fresh logistics network market circulation platform. Therefore, we need to enrich social resources, constantly enhance the value of the brand, establish the idea of the healthy development of intangible assets, constantly strengthen the docking of fresh logistics network market circulation resources and information integration, and put forward ideas and strategies for the supply of the fresh logistics network. In this way, the advantages of fresh logistics network in supply can be highlighted, the supply power of fresh logistics network can be improved, and the innovative system and new ideas of fresh logistics network market circulation can be utilized to spread and promote the brand, so as to improve the power of sustainable development of the supply chain in the fresh logistics network [13].

Fresh products arrive at the hands of consumers from the farmers planting the products to the wholesalers in the marketing place, in the place of origin, in the market and then to the distributors in the vegetable market and in the supermarket. There are many links and processes, but all of them involve the storage, sorting, sorting, processing and packaging of fresh products [14].

In the era of Internet Plus, we should initiate the Internet celebrity economy model to closely connect the rural areas, farmers and agriculture, solve the problems of agriculture, rural areas and farmers, and finally achieve the platform development and construction to support the poor. In the construction of the rural fresh product supply chain platform, we should take advantage of the characteristics of the fresh logistics network free from space and time requirements in market circulation, propose a path for the development of the supply chain economy in the fresh logistics network in the future era of Internet Plus, and develop a way to flourish the country [15].

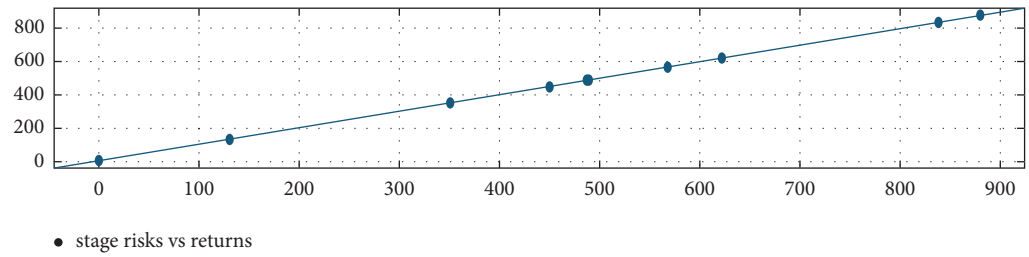

Figure 6: Curve fitting result 1.

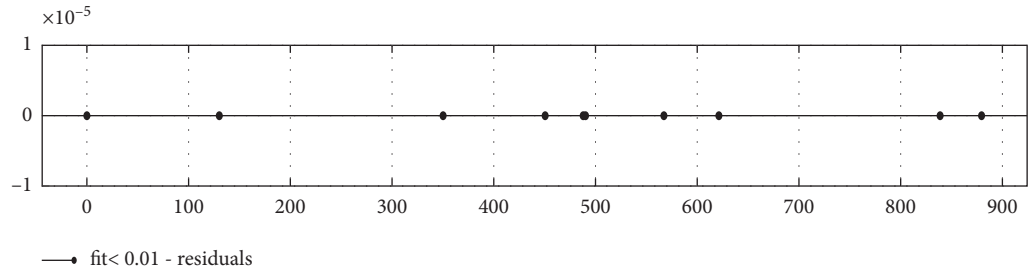

Figure 7: Curve fitting result 2.

4.5. Logistics Operation Procedure and Steps of Fresh Products Purchasing. As for the logistics operation of fresh products purchasing, on the one hand, it should be planned from one link in the planting and production of fresh products. On the other hand, the environment for the supply and purchasing of fresh products should be sorted.

In this paper, a link planning of planting and production process of the fresh product was proposed. First of all, we should strictly control the cultivation of fresh products, and establish a standardized process as mentioned in the previous text. Secondly, we need to screen the quality of fresh products and build a detailed screening method. In the purchase list of fresh products, the specific requirements for the name, quantity, size, weight and color of the purchased products should be defined. For example, the fungi in vegetables and vegetables, the size of fungi, the folate content of fungi, the vitamin content of fungi and the damage rate should be set. Qualified products should be procured, and unqualified products should be excluded. The products with excellent fungus quality can be listed as the primary procurement target. Different kinds of vegetables, such as lotus root and lettuce from a farmer in a rural area, can be directly taken as the secondary procurement target and can be positioned as the primary procurement target after it is confirmed in the assessment. The purpose is to distinguish specific categories of purchased products by season. Finally, the links involving fresh products should be planned to a certain proportion and content, including which fresh products purchased are essential and which are in line with the market demand. It needs to be supported by the algorithm of the system platform [16].

Then, it comes to the environment for the supply and purchasing of fresh products. First of all, the purchasing relationship and purchasing intention should be determined. In this step, we should determine the specific categories of products to be purchased and the specific needs, such as product name, category and quantity, the required time, and the information of these elements. Secondly, the method of payment should be negotiated in the aspects of the sequence of goods delivery and payment, the specific proportion of price for payment and other elements. Finally, it is about how to define inspection and lending. A credit evaluation is carried out in this part [17].

After the processes and links are determined, the platform can be put into operation. It is designed to control the specific application technology and risk of the information-based platform, make the economic mode of fresh product procurement run in the low-risk environment, and continuously improve the development momentum and sustainable effect [18].

4.6. Test on the Relationship between Fresh Product Purchasing and Economic Gain in Supply Chain. The relationship between fresh product purchasing and economic gain in the supply chain was tested by using the MATLAB18.0 (2018 Version) and MATLAB CURVE FITTING. The rationality of the above data and model content was tested. The test results are shown in Figures 6 and 7.

According to the test results, it can be seen that in the test of the staged risks and returns, the fitting degree was less than 0.01, presenting a correlation. According to result 1, the test trend of CURVE FITTING was obviously correlated. CURVE FITTING Result 2 showed that the fitting degree was stable, and there was no variable space or interference value. Thus, it can be found from this test the risk was verified through the overall judgment of the formula $\rho(i) = n_i/n$, $i = 0, 1, 2, \ldots, L-1$. The product of the risk coefficient $\sum_{i=0}^{L-1} n_i/n$ and the valuation of staged risk $E_{k(k=1,2,3,\ldots,L-1)}$ is less than or equal to 1. If it is less than 1, it

indicates low risk. The lower the product is, the lower the risk will be. Thus it can be known that the relative value of the income obtained will be relatively high. On the contrary, the higher the value is and the closer it is to 1, the greater the risk will be, and the lower the relative return will be. If it is equal to 1, the risk is 100%, and the return is 0. Thus, the model was established [19].

5. Conclusion and Enlightenment

5.1. Conclusion. Combined with the above analysis, it can be seen that the supply chain model has actually replaced the traditional economic development model, and the logistics network for fresh product purchasing under the supply chain model has gradually taken shape, gradually replacing the logistics models in traditional industries. From the perspective of development ideas, it has been practically integrated with the operation of fresh product purchasing and logistics under the supply chain, thereby developing into a new logistics network for the fresh product purchasing platform under the supply chain model. At the same time, it provides a complete transportation process of fresh products on the platform and creates a new operating pattern for the purchasing economy.

5.2. Enlightenment. In the future, combining modern information technology to build fresh products supply chain platform will become a humanized development trend. Because it has multiple benefits. Firstly, it can improve the procurement quality of rural fresh products in the context of supply chain economy, and achieve the goal of improving economic benefits while reducing risks. Secondly, it is highly operable to deal with the fresh logistics network and carry out marketing activities by considering various problems in operation from the perspective of human consciousness. Thirdly, The purchasing platform of fresh products in rural areas can be built to strengthen the production power of fresh products in rural areas, reduce the overall risk coefficient of the supply chain, and improve the returns by virtue of the reasonable positioning of the fresh purchasing platform in rural areas. All these have been verified and demonstrated in this study, which will lay a foundation for future studies.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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