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Research Article

A Novel Optimal Selection Algorithm for Agricultural Trade Export in Blockchain-Enabled Internet of Things

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With the maturity of modern science and technology, such as networks and computers, Internet of Things has been widely used in various fields of industry, opening up a new situation for the development of the industry and creating a broader development platform. This paper systematically analyzes the characteristics and changes of the commodity structure, regional structure, market structure, and main structure of export management of agricultural products. The proposed algorithm uses computer technology, network technology, and remote communication technology, electronic, digital, and network—the entire business process of business. The empirical analysis shows that the structure of agricultural product export trade reflects the endowment and comparative advantage of agricultural resources in China. The proposed blockchain technology supports and guides agricultural export enterprises to develop their own brands, strengthen the quality and safety management of agricultural products, and innovate and expand the policy support system for optimizing the structure of agricultural product export trade. By optimizing the export mode of agricultural trade, we can achieve the purpose of increasing the export volume of agricultural products and the total value of trade exports. The experimental results show the effectiveness of the proposed algorithm, which can greatly improve the volume of trade exports and the total value of trade exports.

1. Introduction

In order to implement the national agricultural science and technology innovation capacity building plan, the majority of scientific research users recommend the ADCON agricultural Internet of Things/data acquisition and processing system for the agricultural market. The system includes complete farmland meteorological environment, soil and crop information collection, video information collection, and data pass wireless transmission method to the server, data center construction software platform, database, gateway, server, data terminal and other complete data storage, viewing, and analysis and processing system; users can use this system to obtain farmland meteorological environment, soil moisture and crop physiology online in real time. Ecological character information promotes the construction of agricultural information management. Electronic commerce is a new economic form, which means to fully develop the integrated value of the Internet in the allocation of production factors, to apply Internet technology to various industries, and to inject a new development power into the development of the industry. It can lead the innovation and progress of the real economy [1]. Against this background, electronic commerce also plays a vital role in the development of China's agricultural export trade, especially as an important agricultural production base in China [2]. We should firmly grasp the opportunity created by electronic commerce, give play to the positive impact and guiding value of electronic commerce on the export of agricultural products, actively overcome the existing problems, and promote the sustainable development of agricultural export trade [3].

E-commerce usually refers to a wide range of commercial trade activities around the world; in the Internet open network environment, based on client/server applications, buyers and sellers do not meet with all kinds of commercial activities, realize consumer online shopping, online transactions between merchants and online electronic payment and various business activities, trading activities, financial activities, and related comprehensive service activities of a new type of commercial operation mode. Electronic

commerce facilitates the export of agricultural products and creates new ways of export trade through Internet channels [4]. For example, the export of products can be negotiated with exporters through cross-border e-commerce platforms and through Internet platforms. The virtual environment of the network can be assigned agricultural export contracts, so in the context of electronic commerce, the regional agricultural export situation is developing well. In 2017, the export trade volume of agricultural products in Heilongjiang Province reached 864 million US dollars, an increase of 10% over the same period last year. Jilin Province exported 7.8 billion yuan of agricultural products [5]. The export value of agricultural products in Liaoning Province reached 5.3 billion US dollars, an increase of 7% over the same period last year. The main categories of agricultural products exported are soybean, corn, rice, apple, deer products, poultry products, aquatic products, and other regional agricultural products. Japan, South Korea, Russia, and other Asian countries are the main exporting countries. In recent years, the scale of export to the United States, Canada, and other European countries has gradually expanded [6].

The rest of this paper is organized as follows. Section 2 discusses the dilemma in agricultural trade under the background of electronic commerce, followed by the influence of electronic commerce on the export trade of regional agricultural products and suggestions for its development designed in Section 3. The optimal selection algorithm of the agricultural trade export mode is discussed in Section 4. Section 5 shows the simulation experimental results, and Section 6 concludes the paper with summary and future research directions.

2. Dilemma in Agricultural Trade under the Background of Electronic Commerce

The relative lag in the construction of information infrastructure is one of the difficulties faced by regional agricultural product export trade under the background of electronic commerce. The export of agricultural products under the background of electronic commerce needs to be based on perfect information. Although the process of information construction in China has been accelerated in recent years, the speed of the development of regional information infrastructure is relatively lagging behind [7]. In particular, it needs to establish cross-border Internet trading platforms and relatively high requirements for the basic conditions of information technology. If the level of information technology is low, it will limit the development of agricultural product export trade under the Internet environment [8]. Therefore, due to the slow development of information infrastructure construction, the development of regional agricultural export trade is not satisfactory at this stage. In 2017, the Internet penetration rate was about 50 percent; the national ranking was 19th; the number of new websites was 8626, accounting for about 1 percent of the total national total; and the national ranking was 21st. It can be seen that the construction of network information in Jilin Province is lagging behind. Thus, the export of electronic commerce agricultural products will be restricted [9].

At this stage, the slow development of logistics distribution systems has become a major difficulty by restricting the development of regional agricultural export trade under the background of electronic commerce. In the process of export of agricultural products, both parties can use the network to trade across geographical and spatial constraints without having to talk face to face. However, after an order is reached, a perfect logistics distribution system is still needed as the support [10]. In particular, cross-border logistics distribution is far more difficult than domestic logistics distribution; its complexity is stronger and more challenging. On the one hand, the distance of cross-border logistics is long, and the shelf-life of agricultural products is usually relatively short, which is difficult to preserve, thus increasing the cost of logistics transportation and depriving agricultural products of the price advantage of exporting [11]. On the other hand, the export of agricultural products is more dispersed. The three provinces have not yet completed the distribution of highway territory; hence, the export of products before the logistics transport costs is relatively high. Taking Jilin Province as an example, although the logistics industry in the province has achieved certain development, the overall strength is relatively weak, the logistics supply capacity is insufficient, the linkage with other industries is not close, and there is no perfect logistics security system. This has a negative impact on the export of products overseas [12].

Under the background of electronic commerce, there is a lack of guarantee of product quality and safety in regional agricultural product export trade. At present, green trade barriers have become a tool for the developed countries to restrict the export of products from developing countries to their own countries. In the field of agricultural products, the United States, the European Union, Japan, and other developed countries have also formulated strict product inspection and quarantine standards [13]. Under the export mode of agricultural products under the environment of electronic commerce, small- and medium-sized agricultural product enterprises can use cross-border e-commerce platforms to independently establish trading relationships with overseas buyers to sell agricultural products to them [14]. However, at present, the quality and safety inspection and quarantine work for the export of agricultural products in the region have not yet been implemented, and there is a lack of perfect standards. In this case, it is very likely that the quality of the products will not meet the standard, the products will not be up to standard, and so on. It will even lead to hidden dangers of food safety, which will also have an impact on the overall image of domestic agricultural products. For example, the inspection and quarantine department of Heilongjiang Province have recently investigated and dealt with a number of agricultural products with quality problems, including the matsutake and rice, which have caused serious quality problems due to improper preservation and deterioration of products during transportation [15]. The overall structure of electronic commerce is shown in Figure 1.

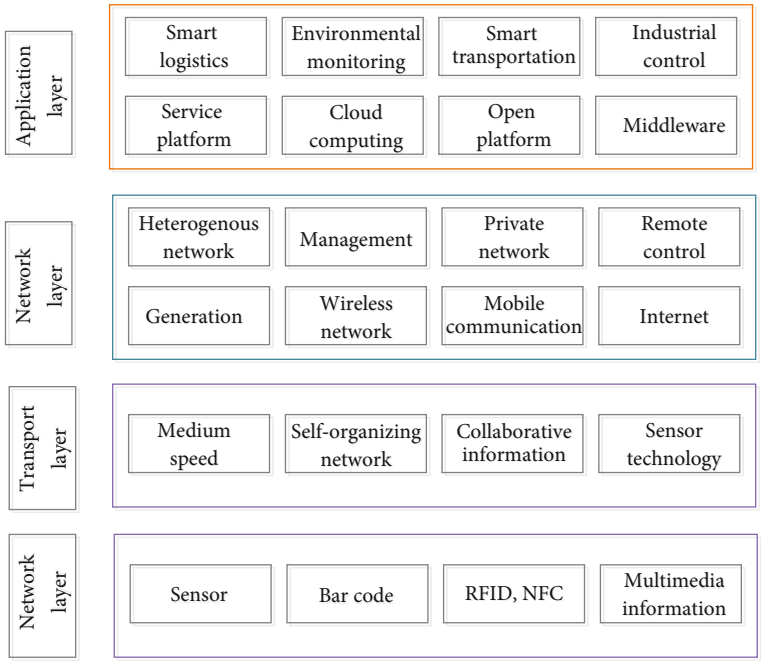

Figure 1: The overall structure of electronic commerce.

3. The Impact of E-Commerce on Agricultural Exports

3.1. Conducive to the Establishment of Regional Export Brands of Agricultural Products. "Internet" has a very positive impact on the regional agricultural product export, which is conducive to the establishment of a regional agricultural product export brand [16]. Despite the high quality and low price of agricultural products in the region, due to the lack of propaganda and marketing, there has been a lack of influence in the international market for a long time to form a brand effect, and electronic commerce has changed this situation. Especially for the regional export of agricultural products to create a new channel and approach, enterprises can promote and market products in the virtual environment of the network, thus breaking the restrictions of the geographical environment to the target markets around the world to publicize. Through this way, the regional agricultural product export trade can truly go out of the country, go to the international market, gain more consumer identity, and then set up its regional agricultural product brand [17].

3.2. Promote the International Competitiveness of Regional Agricultural Products. The influence of electronic commerce on the regional agricultural product export trade is reflected in the promotion of the international competitiveness of regional agricultural products [18]. For a long time, the advantage of the regional agricultural product export lies in its abundant resources and low cost, which is based on the price advantage. With the development of export trade of agricultural products in Southeast Asia, the export of regional agricultural products has gradually lost its price advantage. Under the environment of electronic commerce, regional agricultural export enterprises can establish a network security management system with the help of a network, bar code identification technology, network technology, and so on [19]. It can enable consumers in any country and region to have access to comprehensive information on agricultural exports, thereby enhancing the international competitiveness of products and expanding their market share. Ranking of the average scores of importance and satisfaction of evaluation indicators is as shown in Table 1 [20].

3.3. Speeding Up the Construction of Information Basic Network. Based on the overall development situation of electronic commerce at present, the development of regional agricultural product export trade must speed up the process of information basic network construction and make comprehensive preparations for agricultural product export. First of all, we should continue to promote the process of information construction in rural areas, improve the level of information, create a good information base for the overseas export of agricultural products, and provide more farmers with opportunities for the development of overseas exports of products [21]. Secondly, local governments should strengthen their support for the construction of information technology for agricultural product exports, support the establishment of cross-border e-commerce platforms, and at the same time train a large number of information talents and improve the level of information of talents. Under the environment of electronic commerce, the regional agricultural product export must keep up with the level of information development, in order to create a broad platform for agricultural product export [22]. For example, the region can learn from the successful experience of Hangzhou, establish cooperative relations with mobile and Unicom telecom

Table 1: Ranking the average scores of importance and satisfaction of evaluation indicators.

Indicators	Importance	Sorting	Importance	Sorting
A_1	4.233	13	3.628	7
A_2	4.102	14	3.582	8
A_3	4.464	6	3.252	11
A_4	4.225	12	3.895	3
B_1	4.566	4	3.854	5
B_2	4.675	3	4.012	1
C_1	4.323	9	3.862	4
C_2	4.238	11	3.923	2
D_1	4.335	8	3.785	6
D_2	5.000	1	3.212	13
E_1	4.998	2	3.102	14
E_2	4.525	5	3.321	10
E_3	4.386	7	3.356	9
E_4	4.248	10	3.243	12

companies, comprehensively promote the construction of Internet information, strengthen the construction of hardware, and provide assistance for the construction of Internet information. The influence of electronic commerce on regional agricultural product export trade and suggestions for its development are shown in Figure 2 [23].

3.4. Establishment of an Efficient Logistics System for Agricultural Products. The development of cross-border e-commerce depends on the perfect basic conditions of logistics distribution. Therefore, under the background of electronic commerce, the regional agricultural product export trade must also establish an efficient agricultural product logistics system as soon as possible. First of all, it is necessary to improve the construction of regional rural logistics; create a complete logistics chain system; set up a logistics network in counties, towns, and villages; improve the basic conditions of logistics transportation in rural areas; and provide convenience for the export of agricultural products [24]. Secondly, we should strengthen ties with overseas logistics and transport enterprises, create close cooperative relations, increase the speed of overseas transportation of agricultural products, reduce the transportation time, and avoid the problem of product deterioration caused by the long transportation time [25]. At the same time, in the process of logistics transportation, we must optimize the preservation mode of agricultural products, select appropriate storage conditions according to different products and different export areas, and avoid the phenomenon of product damage in the course of logistics transportation. In this regard, the region can learn from the successful experience of Jiangsu [26]. The Logistics Industry Park regularly holds business promotion meetings, actively negotiates and cooperates with logistics enterprises, and attracts investment to establish a more perfect logistics system and become the overseas export of products to undertake power [27].

3.5. Enhancing the Quality and Safety of Agricultural Products. Under the background of electronic commerce, the development of regional agricultural product export trade must enhance the quality and safety of agricultural products; ensure the hygiene, health, and safety of exported food; and attract consumers by quality [28]. The relevant government departments shall issue inspection and quarantine standards for the export of agricultural products, strictly check the quality of agricultural products, and prohibit the export of agricultural products in case of problems in product quality, so as to improve the quality of their exports [29]. At the same time, according to the different requirements of exporting countries of agricultural products, the conditions of inspection and quarantine should be adjusted appropriately to break down the green trade barriers and gain the trust of consumers in terms of quality. Yunnan Province's experience in this area is worth learning. The Yunnan Inspection and Quarantine Bureau has established a new mode of inspection and supervision, implemented a "full declaration, full filing, and traceability" management model for export products, set up a complaint reporting point for import and export commodity quality, collected information in an all-round way, and expanded the monitoring area. In this way, the export of agricultural products can be monitored more effectively to ensure the quality of products [30].

3.6. Establishment of Internet Security Trading Platform for Agricultural Products. The establishment of an Internet security trading platform for agricultural products is a prerequisite for regional agricultural products export trade under the background of electronic commerce. First of all, the relevant government departments should strengthen the qualification of cross-border e-commerce in the Internet environment and develop a sound credit review mechanism, for the strict screening of the platform of the business, to ensure the credibility of the business and to ensure the security of the Internet environment. Secondly, we should improve the level of network technology and strengthen the customer information leakage, payment loopholes, and other potential network risk management, to prevent economic losses to consumers and create a safe network environment. Through this way, we can attract overseas consumers to our cross-border e-commerce concerns, enhance trust, and then, through the Internet and regional businesses to establish a cooperative relationship, choose from the import of agricultural products. The achievements of Beijing in the area of network information security can be used as a reference for the region. At present, Beijing has set up a leading group on network security and information and has opened an Internet information reporting center for illegal and bad information, in order to play a network information security protection effect.

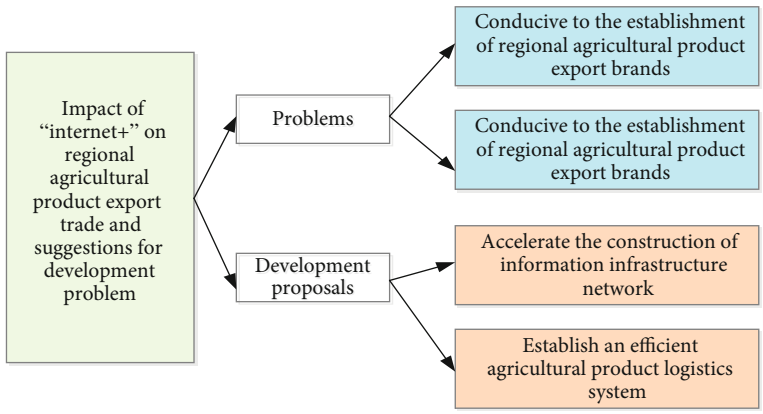

Figure 2: The influence of electronic commerce on regional agricultural product export trade and suggestions for its development.

4. Optimal Selection Algorithm of Agricultural Trade Export Mode

China should gradually adjust the export market structure of agricultural products and establish a global agricultural product export market system characterized by "market diversification." It is necessary to consolidate the traditional key markets and constantly develop new markets. In this paper, the relative error of the natural frequency of the theoretical model is taken as the objective function, the first four natural frequencies are taken as the state variables, and some uncertain materials and cross-section parameters are taken as the design variables in the finite element modelling. Using ANSYS software, the sensitivity of objective function and state variable to the design variable is calculated first, then the design variable with high sensitivity is selected, and the optimization iteration is carried out by using the appropriate optimization method. Finally, the more accurate design variables are obtained. The purpose is to play the role of network information security protection. ANSYS software provides a variety of optimization methods. Considering the accuracy of the results, the first-order optimization method is the main method used, and other methods are used for calculation.

4.1. Sensitivity Analysis. The design variable can be expressed as $X = [X_1, X_2 \cdots X_n]$, where X represents the lower and upper limits of the design variable X_j. The following representations are the same.

The reference state of the objective function is $f_r(x) = f(x^{(r)})$, and the sensitivity of the objective function or state variable to the design variable is expressed as follows:

$$\Delta f_r = \left[\frac{\partial f_r}{\partial x_1}, \frac{\partial f_r}{\partial x_2}, \cdots, \frac{\partial f_r}{\partial x_n}\right]. \tag{1}$$

4.2. Basic Principles of Optimal Design. ANSYS software provides a variety of optimization methods; considering the accuracy of the results, the first-order optimization method is the main method, and other methods are used for calculation; each iteration retains a set of optimal solutions. It can be summed up in the following general form.

Minimum:

$$f = f(x). \tag{2}$$

Constraints:

$$\begin{aligned} x_j' \le x_j \le x_j' \quad (j = 1, 2, \cdots, n), \\ g_j \le g_j' \quad (j = 1, 2, \cdots, n), \\ h_j' \le h_j(x) \quad (j = 1, 2, \cdots, n), \\ w_j' \le w_j(x) \le w_j' \quad (j = 1, 2, \cdots, n). \end{aligned} \tag{3}$$

If the mixed penalty function method is used to transform it into a dimensional unconstrained single-objective optimization problem, the penalty function is expressed as follows:

$$Q(x, q) = \frac{f}{f_0} + \sum_j p_x(x_j) + q\left[\sum_j p_g\left(g_j\right) + \sum_j p_h(h_j) + \sum_j p_w(w_j)\right], \tag{4}$$

in whichp_x,p_g,p_h, and$p_w$are penalty factors for constrained design variables and state variables. By using the gradient method for unconstrained optimization problems, the iterative formula is expressed as follows:

$$x^{(j+1)} = x^{(j)} + s_j d^{(j)}, \tag{5}$$

in which s_j is the optimal step size factor. The convergence condition of the iteration is given as follows:

$$\begin{aligned} \left|f^{(j)} - f^{(j-1)}\right| \le \tau, \\ \left|f^{(j)} - f^{(b)}\right| \le \tau, \end{aligned} \tag{6}$$

in which τ is the tolerance of the objective function.

4.3. Design of Route Optimization Algorithm Based on Dijkstra Algorithm. In a graph G, the Dijkstra algorithm

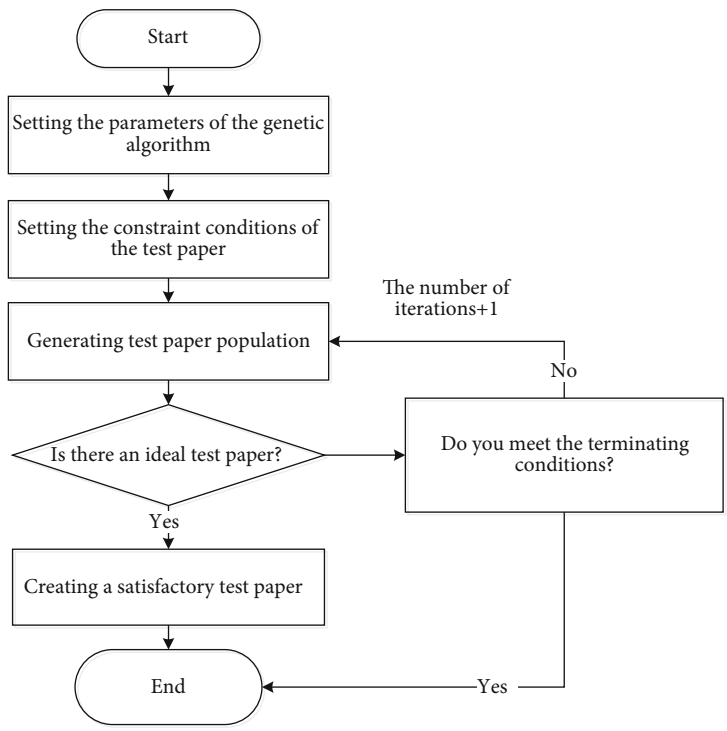

Figure 3: Dijkstra algorithm flow chart.

can not only give a path with minimum weight between two specified vertices but also find the shortest path from a specified point to all vertices in G. The disadvantage of the Dijkstra algorithm is that when the number of nodes in the network is large, it will increase the search cost and reduce the efficiency. For example, to search for the shortest path to all nodes of G, the time complexity is $O(N_2)$.

The following brief description uses the Dijkstra algorithm to solve the shortest path between two specified vertices: the input is directed graph $G(V\text{on}E)$, V is the set of vertices, and V is divided into U and UV. E is the edge set of graph G. S is the source node, and the shortest path from the source node s to v is denoted as the $P(v)$, length of the shortest path from the source node s to v, which can be represented by the maximum real number, and they are expressed as follows:

$$D(v) = \sum C(v_i, v_j), \quad \text{where } v_i, v_j \in V. \tag{7}$$

If $D(v)$ is the shortest path length from s to p,

$$D(v_0) \le D(v_1) \le D(v_2) \le \cdots \le D(v_n). \tag{8}$$

Then, the following can be proven by derivation,

$$D(v_{n+1}) = \min\{D(v_n) + C(v_i, w)\}, \quad \text{where } v_i \in U, w \in V - U. \tag{9}$$

The Dijkstra algorithm flow chart is shown in Figure 3.

Table 2: The basic importance of customer needs.

Demand	A_1	A_2	A_3	A_4	B_1	B_2	C_1
Basic importance	0.06	0.024	0.048	0.113	0.073	0.081	0.065
Demand	C_2	D_1	D_2	E_1	E_2	E_3	E_4
Basic importance	0.129	0.032	0.056	0.024	0.121	0.137	0.004

Table 3: The correction factor of the basic importance of customer demand.

Correction factor	r_1	r_2	r_3	r_4	r_5	r_6	r_7
Correction value	0.16	0.224	0.008	0.013	0.173	0.281	0.006
Correction factor	r_8	r_9	r_{10}	r_{11}	r_{12}	r_{13}	r_{14}
Correction value	0.12	0.02	0.06	0.04	0.21	0.137	0.024

4.4. Analysis of Route Optimization Algorithm Based on Dijkstra Algorithm. Find a vertex w from $U - V$ at a time, minimize $D(W)$, move w from $V - U$ into UU, and modify the $P(v)$ and $D(v)$ for each v as follows.

If the following conditions are satisfied as follows:

$$D(v) > D(w) + C(w, v), \tag{10}$$

in which w is the vertex of the newly selected U, then,

$$P(v) \leftarrow P(w)//\{v\}, \tag{11}$$

$$D(v) \leftarrow D(w) + C(w, v), \tag{12}$$

Table 4: Iterative correction model theoretical frequency and measured frequency comparison.

Vibration mode	Measured frequency	Finite element theory frequency (Hz)				Error (%)
		Initial FEM	After 1 iteration	After 2 iterations	After 3 iterations	
Vertical 1st order	5.87	4.98	5.13	5.58	5.79	1.4
Vertical 2nd order	12.96	12.64	12.86	12.93	12.90	0.46
Reverse 1	8.31	7.89	7.91	8.12	8.43	1.44
Reverse 2	5.64	14.34	14.60	15.67	15.61	0.19

Table 5: Structural parameter correction.

Structural parameters	Initial estimate	Corrected parameter values		
		After 1 iteration	After 2 iterations	After 3 iterations
H(m)	0.900	0.893	1.138	1.139
H_1(m)	0.140	0.152	0.155	0.154
L(m)	9.200	19.000	9.279	19.280
$E(10^{10})$(Pa)	3.0	3.0675	3.1476	3.150

in which "/" means the path is connected. It shows that the path from s to w and then to v is better than the path from s to v without going through w. Here, the representation of the path $P(v)$ is an ordered sequence of vertices $(v_1 = s_1 v_2, v_3, \cdots, v_i = v)$.

For attributes, its importance can be calculated by the following formula:

$$\beta_i = \beta_D(C_i) = \frac{\text{card}\ (\text{Pos}_C)(CS) - \text{card}\left(\text{Pos}_{|C-\{C_i\}|}\right)(CS)}{\text{card}\ (U)}. \tag{13}$$

And relatively important formulas can be expressed as follows:

$$g_i = \frac{\beta_i}{\sum_i \beta_i}. \tag{14}$$

Using the above formula, we can determine the relative importance of customer demand Q, that is, the basic importance degree of customer demand, which is shown in Table 2.

In order to get the basic importance vector of customer demand, we can use the following equation. And the correction factor of the basic importance of customer demand is shown in Table 3.

$$g = (g_1, g_2, \cdots, g_{14})^T. \tag{15}$$

5. Simulation

The dominant position of state-owned enterprises in the export of agricultural products in China has been replaced by foreign-invested enterprises and the trend of negative growth. In 2005, state-owned enterprises exported US $7.437 billion in agricultural products, accounting for 27.36 percent of the total agricultural exports. This represents a decrease of $1.303 billion, or -14.91 per cent, over 2000. With the increase of agricultural product export, the export of state-owned enterprises is stagnant, and even the trend of negative growth has appeared. This shows that the degree of state monopoly of agricultural trade in China is decreasing and the degree of market is increasing. Iterative correction model theoretical frequency and measured frequency comparison are given in Table 4.

Through the above experimental results, it can be observed that the frequencies of each model will eventually converge to the same value. The status of foreign-invested enterprises in the export of agricultural products has gradually risen and has occupied a dominant position. In 2005, Sino-foreign joint ventures, wholly foreign-owned enterprises, and Chinese-foreign contractual joint ventures exported US $11.671 billion in agricultural products, accounting for 42.933% of the total agricultural exports, an increase of US $6.941 billion or 146.74% over 2000. Among them, the Sino-foreign joint venture is the largest export of agricultural products in foreign-funded enterprises, ranking third among the seven main trading bodies. Structural parameter correction is given in Table 5. The change of parameter value after iteration is shown in Figure 4.

Total exports of agricultural products from private enterprises are increasing rapidly. In 2000, private enterprise exports accounted for 1.8% of the total agricultural exports, which rose to 12.2% in 2003 and reached 24.82% by 2005. In 2005, private enterprises exported US $6.747 billion in agricultural products, an increase of nearly 24 times over 2000. As a result, private enterprises have become one of the main business entities in the export trade of agricultural products in China. Performance comparison of different agricultural product trade optimization selection algorithms in stock of trade product warehouse is shown in Figure 5.

The solution is to adjust and optimize the structure of agricultural product export trade, to implement the strategy of market diversification, to strengthen the construction of agricultural industrialization bases and deep processing bases, and to produce characteristic products with export competitive advantages. We will support and guide agricultural export enterprises to develop their own brands, strengthen the quality and safety management of agricultural products, and innovate and expand the policy support system for optimizing the structure of agricultural products export trade. Performance comparison between the proposed method and the traditional optimal selection method is shown in Figure 6.

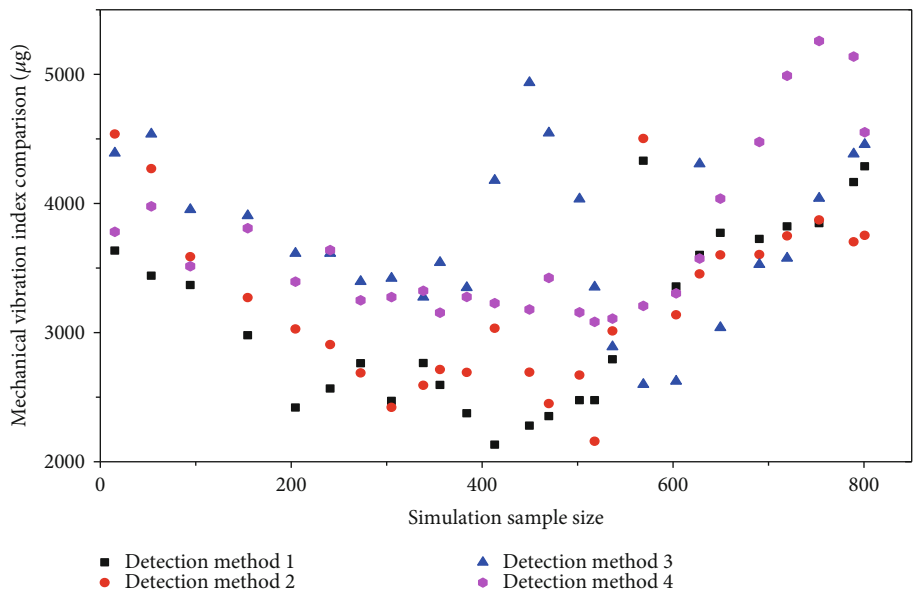

Figure 4: Parameter values change after iteration.

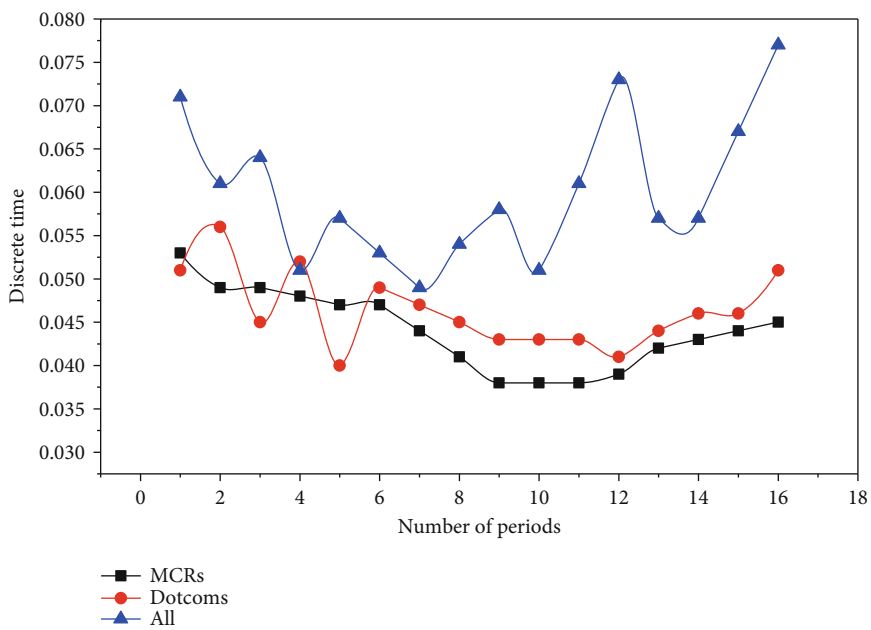

Figure 5: Performance comparison of different agricultural product trade optimization selection algorithms in the stock of trade product warehouse.

By optimizing the export mode of agricultural trade, we can achieve the purpose of increasing the export volume of agricultural products and the total value of trade exports. The experimental results show the effectiveness of the proposed algorithm, which can greatly improve the volume of trade exports and the total value of trade exports.

6. Conclusion

This paper systematically analyzes the characteristics and changes of the commodity structure, regional structure, market structure, and main structure of export management of agricultural products. The empirical analysis shows that the structure of agricultural product export trade reflects the endowment and comparative advantage of agricultural resources in China. The export trade of agricultural products is mainly concentrated in labor-intensive agricultural products with competitive advantage and export regions. Mainly concentrated in the eastern provinces, the export market is relatively concentrated; structural changes have also appeared in the main body of agricultural product export. The solution is to adjust and optimize the structure of

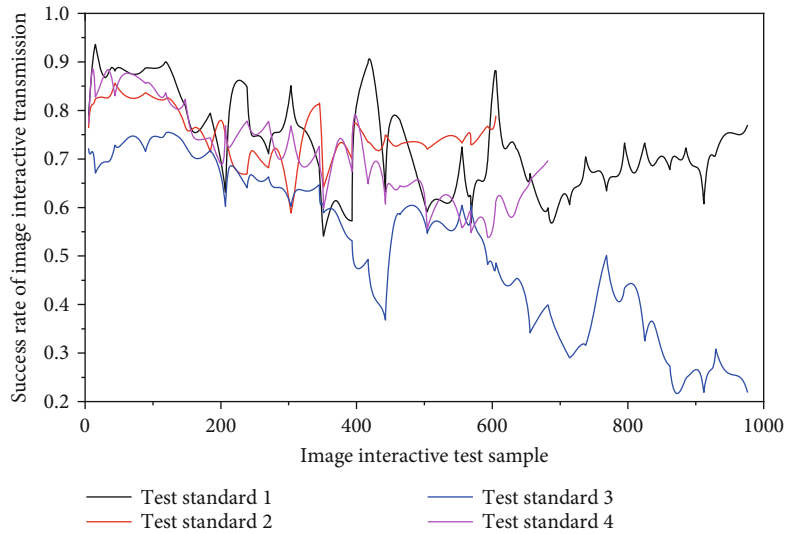

Figure 6: Performance comparison between the proposed method and the traditional optimal selection method.

agricultural product export trade, to implement the strategy of market diversification, to strengthen the construction of agricultural industrialization bases and deep processing bases, and to produce characteristic products with export competitive advantages. We will support and guide agricultural export enterprises to develop their own brands, strengthen the quality and safety management of agricultural products, and innovate and expand the policy support system for optimizing the structure of agricultural product export trade. By optimizing the export mode of agricultural trade, we can achieve the purpose of increasing the export volume of agricultural products and the total value of trade exports. The experimental results show the effectiveness of the proposed algorithm, which can greatly improve the volume of trade exports and the total value of trade exports.

Data Availability

All the data is real, and all the data can be obtained by contacting the author.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this paper.

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