

Analysis on the Influencing Factors of Transformation of Green Logistics Industry of Dangshan Pear Based on ISM

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Abstract

The state strongly advocates the construction of ecological civilization, which brings opportunities to the production and consumption of green products. The green stream of the development of the pear (sweet pear) is of great significance for the county in Suzhou city, Anhui province, which is a major economic crop. There are many disadvantages in the traditional pear logistics mode, and it is changing in the direction of green logistics. In this paper, the author USES the interpretation structure model (ISM) method to refine and analyze the factors affecting the development of green logistics of the pear, and summarizes the 12 influencing factors and their interrelationships through literature collection, data access and other methods, and establishes the Adjacency matrix and the Accessibility matrix, and constructs the Six-order interpretation structure model. Based on the analysis of the model, six suggestions are proposed to promote the development of green logistics transformation in Dangshan County, and provide references for the development of green agricultural logistics industry in Dangshan County and other areas in China.

Key words: Dangshan pear; Green logistics industry transformation; ISM

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INTRODUCTION

The deterioration of the global environment has made the concept of environmental protection deeply rooted in the hearts of the people. Hunger breeds discontentment. As agricultural products are sources of consumption and food processing, green production and consumption are widely concerned. Dangshan County of Anhui Province produce is rich in high quality pear sold at home and abroad. In respond to the call for the construction of national ecology-based civilization and being in accordance with the consumers, green consumption concept, Dangshan pear adhere to green production and circulation. In fact, the production process of pear including the degree of pollution is usually more focused on and too little attention is paid on the environmental friendliness evaluation on the logistics of Dangshan pear. At present, there are situations that Dangshan County lacks of professional environmentally-friendly logistics talent and advanced logistics technology. And pears are on a high cost. Due to increased market saturation and lower prices of Dangshan pear recently, the farmers, enthusiasm for production of pear has been seriously hurt. The traditional pear logistics mode is not fully consistent with the green idea required by the modern society, so it is necessary to promote the transformation of pear production and pear logistics, so as to realize the development of the green logistics industry transformation of Dangshan, and contribute to the sustainable development of the whole country's economy and society.

1. LITERATURE REVIEW

Foreign research on green logistics started earlier. In the mid-1990s, *International Distribution & Logistics Management*, issue a book called *Environmental Problems* in the field of logistics, such as Murphy (1996) scholars pointed out that circulation when packing a good way of green logistics, at this point, the concept of "green logistics"

was clearly put forward. Wu and Dunn (1995) believe that green logistics is the logistics system responsible for the environment. The American reverse logistics executive committee (RLCEC) believes that green logistics is a logistics process with minimal impact on the ecological environment. Rodrigue (2001) believes that green logistics is an environmentally friendly and effective logistics system, and the logistics activities and environmental protection are mutually compatible. Bjorn and Paller (2006) pointed out that green logistics is the ecological management of forward logistics and reverse logistics.

The definition of “green logistics” (GB/ t18354-2001), published in China in 2001, is the definition of “green logistics”, which is to reduce the harm of logistics to the environment in the process of logistics, and realize the purification of the logistics environment so as to make full use of the logistics resources. This definition is accepted by most scholars. At the same time, some scholars have defined green logistics from the perspective of focusing on and improving the environment. Chen (2001), Li (2001), and other people think, green logistics is to point to from the perspective of concern and improve the environment prompted items from production to marketing and then to the final waste recycling the related process of circulating system.

Compared with the research theory and practical operation of agricultural products in China and developed countries, there are differences between China and developed countries. Firstly, the research theories on green logistics of agricultural products are basically the same at home and abroad. Although the theory is applied in China, it is not discussed by theory and is superficial. Secondly, from the point of research method, lay particular stress on the quantitative analysis of abroad, domestic is given priority to with theory, more qualitative research on the basis of induction, deduction, mainly from the analysis of the shortcomings of agricultural products logistics present situation, make up the defects in the existing mode, this paper, design a new model. Thirdly, from the perspective of research content, foreign research is refined, and the research results of scholars often combine with a specific region and certain kinds of agricultural products. It is mainly characterized by the successful review and reference of overseas agricultural product logistic, construction of green logistics mode of agricultural products and lack of specific aspects. Finally, from the combination of agricultural products logistics and national conditions, domestic research theories are scattered and lack of systematic theoretical guidance.

In view of that development of green stream, reference should be made to foreign advanced research theory and practice, and to construct a concrete model in combination with specific agricultural product. The author searched the literature and found that there were more literatures on the development factors of green logistics of agricultural

products using the ISM model analysis, but there was less literature on the analysis of the green logistics of Dangshan by using the ISM method. This article is specific agricultural products in specific area Dangshan showed as the research object, using the method of ISM to decompose showed green logistics factors, for Dangshan showed green logistics industry and even other parts of China the development of green logistics of agricultural products to provide the reference.

2. THE MEANING OF TRANSFORMATION OF GREEN LOGISTICS INDUSTRY OF PEAR

2.1 To Meet Consumer Demand and Expand Sales

The current areas of Dangshan orchard are about 700 thousand mu. There are annual output of 3 billion kilograms, and a large number of pears are sold in the domestic and beyond the sea. Since 1958, Dangshan pear has been exported to the international market, and its export volume has been maintained at over 400 kilograms per year. It is a favorite fruit product of more than 40 countries in the world. In recent years, some countries have set up all kinds of green trade barriers for various purposes. The consumption of green, pollution-free food is paid more and more attention to by consumers in many countries. These on Dangshan pear exports and sales greatly affected. Study on development as for Green Logistics Development of Dangshan pear is available to ensure the quality and packaging of pear, and better meet the needs of consumers in the importing countries, thus promoting the export of Dangshan pear.

2.2 In Response to the Construction of National Ecological Civilization

With the expansion of the pear planting area, the farmers use chemical fertilizer and pesticide in order to ensure the quality of the pear. On the one hand, it destructs the ecological environment in Dangshan County and damages the people’s health; on the other hand, it reduces the original quality of the pears, damages the brand image of the Dangshan pear, and reduces the consumer confidence. The Ninth Party Congress of party representatives in Anhui province put forward the strategy of strengthening our province in terms of economic, culture and ecology. The 19th National Congress of the Communist Party of China clearly points out “accelerate the reform of the ecological civilization system and build a beautiful China”. Under the construction of ecological civilization, the production and sale of green agricultural products have become a trend. Therefore, the development of pear green production, green logistics, Green Consumption becomes a priority in the government.

2.3 To Reduce Operating Costs and Increase the Income of Farmers

The serious problem of unmarketable of pear leads to low income of farmers in recent years. The main reason is that there are different problems in production, warehousing, processing and transportation. Environmental pollution increasingly aggravate, pears decline in quality and increase loss. The enthusiasm for production is damaged by the decrease of farmers, income. Through the implementation of green logistics, we can increase logistical effectiveness, reduce environmental pollution and waste of resources. Eventually reducing the operating cost of agricultural production enterprises and pear producers, and green logistics are conducive to the increase farmers, income.

3. A BRIEF INTRODUCTION TO THE PRINCIPLE OF ISM

Interpretative Structural Modeling (ISM) technology was come up with by Professor J. N. Wfield in 1973 and it is mainly used to analyze complex social and economic Structural problems. The basic idea is to extract the elements of the problem through all kinds of creative techniques, using the tools and the technology of the matrix, the elements and the relationships of the elements and their relationships, and then by using the words to explain the level and the overall structure of the problem, to increase the understanding and understanding of the problem, and to create a specific solution to the problem.

4. THE INFLUENCING FACTORS OF DANGSHAN COUNTY PEAR TRANSFORMATION OF GREEN LOGISTICS INDUSTRY

The development of Dangshan pear green logistics will be restricted by many factors. Through the analysis of literature collection, field investigation and statistical analysis, the analysis and synthesis from the angles of government agencies, logistics enterprises, environmental organizations, farmers and consumers, and sorting out the data combined with Delphi method. Find 12 typical factors as S , which is expressed as $S = \{S_1, S_2, S_3, S_4, S_5, S_6, S_7, S_8, S_9, S_{10}, S_{11}, S_{12}\}$.

4.1 S₁: The Backward Concepts of Pear Green Logistics and Weak Consciousness

Pear producers and operators and the government of Dangshan have not yet fully established the concept of green logistics. The producers of pear mostly hold the product idea that the pear is good at the high price. The situation of the excessive use of auxin and pesticide for increasing production and pest control is common, and

it lacks the basic knowledge of the sale and logistics of modern fruit. For small scale enterprises, the green logistics cannot bring obvious benefits for the enterprises in a short time, and the implementation of green logistics means costs increasing in a short term.

4.2 S₂: Lacking Professionals in Green Logistics

China's implementation of green logistics is relatively late, and professionals are lack in green logistics. Dangshan County is not lack of students from the rural areas to learn professional logistics knowledge, but after the study, there are few people returning to the countryside or returning home, and the green logistics professionals are very scarce. Therefore, usually engaged in pear production of Pear Farmers most is only the beginning of high school education level and the low quality of the whole logistics. There are many people working in loading and unloading transportation, but few people working in manipulating high precision and professional logistics equipment.

4.3 S₃: Backward Logistics Infrastructure and Logistics Equipment

From the perspective of first-mile logistics, the road is narrow and the road condition is poor. The trunk line is partially paved with cement and the branch lines into the pear orchard are almost all soil roads. In many areas, the traffic is not available, and the medium-sized transport vehicles are more difficult to pass through the orchard.

From the perspective of storage, the cold chain logistics facilities are needed to preserve pears from spoilage. The cost of self-built cold storage or refrigeration facilities is high. Most farmers store pears indoor or outdoor in a condition of natural temperature.

From the perspective of loading and unloading facilities, the current mode of transport for manual loading and unloading of pear lead to low efficiency, and the buyer hired local farmers to act as a short-term hand for handing of pear even in the busy farming season.

4.4 S₄: Low Level of Informatization

The overall situation of Logistics information construction of pear obviously lags behind. There are still problems in the logistics of Dangshan pear, such as lack of information, narrow information transmission, low information quality, information distortion and information can't be "entered in the village". There are a number of logistics enterprises of Dangshan pear, whose service quality is low, cannot meet the needs of the market. The various links between transportation and warehousing and packaging in the logistics of pear are manual operation, and the information link is not smooth, and the modern information network is not established.

4.5 S₅: Low Level of Standardization of Green Logistics

The current production model of pear is One-family household system. Some household have more pears and

fewer labors but some have fewer pears and more labors. The degree of organization is low and the economies of scale cannot be realized. It is difficult for farmers to classify and grade pears rely on one's own feeling after farmers picking up crisp pear, and there's too much deviation. Fruit mixed level storage and transportation, mixed sale, product packaging materials and management have no uniform standard, which makes it difficult to store, transport, and process crisp pear. Dangshan County is rich in a variety of fruit, but the third party logistics company, which is engaged in the logistics of specialized fruit, is very small, with a small scale and low professional level, so it is difficult to form a scale effect and is not in line with the requirements of green logistics.

4.6 S₆: The Reasonable Market and Lack of Comprehensive Service Function

There are quite a few fruit wholesale markets in Dangshan County, but whose geographical location dispersion loose and planning and layout is not scientific. It is few that modern fruit wholesale center with storage, processing, information raising and service and other comprehensive ability. Most of the township level wholesale markets are small in scale and low in level of information, which fail to build a clear market access system and set up a special information network platform and are lack of government necessary policy support. Most of the wholesale market in the lack of modern logistics facilities, comprehensive service ability is low, and the management is not standard, which are difficult to give full play to the market benefit.

4.7 S₇: High-Cost of Green Logistics

The implementation of agricultural products logistics needs to combine with the advanced cold chain equipment, the infrastructure investment is large, the cost is high; in Dangshan County, the main circulation pattern is the farmers—the producer—the primary wholesaler—the secondary wholesaler - the farmers, market retailer—the consumer. Long logistics chain and intermediate link redundancy lead to high corresponding costs; showed single fruit packaging use package paper and foam screen set. More showed sales mainly use the carton. The several kinds of packaging material not effective recycling mechanism, resource waste and environmental pollution, also lead to higher logistics costs.

4.8 S₈: Imperfect Green Logistics Technology

In the warehousing process, individual farmers cannot use refrigerated storage, air Conditioning, refrigerators and other facilities for storage. It is very rare to use the automated warehouse and modern thermostatic storage technology in enterprises. The technology to detect the quality of the crisp pear is backward. In the preservation process, there are few new technology applications such as cold air conditioning and pressure reduction. In the

packaging process, pears are placed in cartons, wooden boxes or plastic baskets after multi-purpose paper bags, plastic film using for simple packaging, which cannot effectively protect agricultural products during this all manual operation.

4.9 S₉: Seriously Polluted Environment by Agricultural Waste

In the process of the transportation of the pear, the diesel oil and engine oil will be produced, and some rotting agricultural products will be produced due to the backwardness or lack of fresh technology. Improper storage can result in the decay of agricultural products, and the packaging process produces plastic packaging materials such as films that are difficult to degrade. The waste is not processed by specialized agencies, and the rotten pear is buried in the spot. The paper bags are burned directly and the waste is seriously polluted.

4.10 S₁₀: The Implemented Measures of the Green Logistics of Agricultural Products Government

Dangshan County is stricken by poverty. The government mainly takes economic construction as the center, as soon as possible to lead county people out of poverty. In the context of the national call for sustainable development, the government has a certain awareness of the development of green logistics and also takes corresponding measures. However, the main focus is on the economic profit of logistics. Dangshan County turns a blind eye to pollution environment of enterprises, not paying much attention to the green implementation of logistics. In addition, businesses are separate. And the government departments of transportation not showed the mode of transportation of making reasonable planning and management. There is no unified strategic target of low carbon transport, which cannot integrate resources, waste capacity, eventually leading to energy consumption environmental pollution.

4.11 S₁₁: The Imperfection of Green Logistics System

Pear green logistics is a systematic project. From showed picking to storage, until finally the whole process into consumers, hands, for the whole process to realize resource integration and minimize loss, to reduce the environmental pollution to a minimum, showed the original quality, achieve showed economic and environmental benefits. Dangshan County's pear logistics has not yet formed a complete system, and in the process of actual circulation, due to the influence of various factors, the broken chain often occurs.

4.12 S₁₂: Low Logistics Related Personnel Management Level

Dangshan County is engaged in the processing or transportation of the pear, rural cooperatives and enterprises. Most households take the pattern of home

workshops, and the processing and standards for the pears are different. Rural cooperatives have certain guidance for the production and sale of the pears, but there are some limitations to the benefit of the group. Dangshan County leading enterprises are less. Most small scale enterprises are the lack of funds. The small-scale enterprises of scattered geographical distribution and irregular operation flow and lack of modern enterprise management experience present a situation of “one small, one poor, five low” (small business scale, poor integration function, low degree of specialization, low degree of standardization, low economic benefit, low level of technical equipment, low level of information), and generally low economic benefits.

5. ANALYSIS OF INFLUENCING FACTORS ON ISM

According to 12 typical factors influencing the development of green logistics of pear, the ISM model of influencing factors of green pear logistics development is established.

- a) The relationship between the influencing factors is described by digraph, as shown in Figure 1.
- b) Establish system adjacency matrix according to the system element digraph, as shown in Table 1.
- c) According to the adjacency matrix above, we get the M of the reachability matrix by MATLAB software operation, as shown in Table 2.

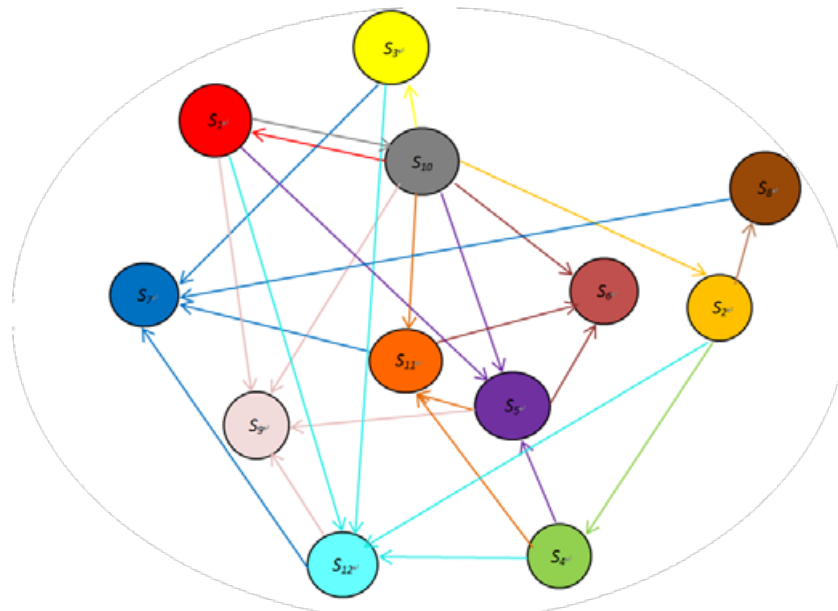


Figure 1
Directed Graph of the System

Table 1
Adjacency Matrix

S_j	1	2	3	4	5	6	7	8	9	10	11	12
1	0	0	0	0	1	0	0	0	1	1	0	1
2	0	0	0	1	0	0	0	1	0	0	0	1
3	0	0	0	0	0	0	1	0	0	0	0	1
4	0	0	0	0	1	0	0	0	0	0	1	1
5	0	0	0	0	0	1	0	0	1	0	1	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	1	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	1	1	1	0	1	1	0	0	1	0	1	0
11	0	0	0	0	0	1	1	0	0	0	0	0
12	0	0	0	0	0	0	1	0	1	0	0	0

Table 2
Reachability Matrix

S_{ij}	1	2	3	4	5	6	7	8	9	10	11	12
1	1	1	1	1	1	1	1	1	1	1	1	1
2	0	1	0	1	1	1	1	1	1	0	1	1
3	0	0	1	0	0	0	1	0	1	0	0	1
4	0	0	0	1	1	1	1	0	1	0	1	1
5	0	0	0	0	1	1	1	0	1	0	1	0
6	0	0	0	0	0	1	0	0	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0	0	0
8	0	0	0	0	0	0	1	1	0	0	0	0
9	0	0	0	0	0	0	0	0	1	0	0	0
10	1	1	1	1	1	1	1	1	1	1	1	1
11	0	0	0	0	0	1	1	0	0	0	1	0
12	0	0	0	0	0	0	1	0	1	0	0	1

Table 3
1 Level Maximum Set Element

S_i	$R(S_i)$	$A(S_i)$	$R(S_i) \cap A(S_i)$
S_1	1,2,3,4,5,6,7,8,9,10,11,12	1	1
S_2	2,4,5,6,7,8,9,11,12	2	2
S_3	3,7,9,12	3	3
S_4	4,5,6,7,9,11,12	4	4
S_5	5,6,7,9,11	5	5
S_6	6	6	6
S_7	7	7	7
S_8	7,8	8	8
S_9	9	9	9
S_{10}	1,2,3,4,5,6,7,8,9,10,11,12	10	10
S_{11}	6,7,11	11	11
S_{12}	7,9,12	12	12

Table 4
2 Level Maximum Set Element

S_i	$R(S_i)$	$A(S_i)$	$R(S_i) \cap A(S_i)$
S_1	1,2,3,4,5,8,10,11,12	1	1
S_2	2,4,5,8,11,12	2	2
S_3	3,12	3	3
S_4	4,5,11,12	4	4
S_5	5,11	5	5
S_8	8	8	8
S_{10}	1,2,3,4,5,8,10,11,12	10	10
S_{11}	11	11	11
S_{12}	12	12	12

Table 5
3 Level Maximum Set Element

S_i	$R(S_i)$	$A(S_i)$	$R(S_i) \cap A(S_i)$
S_1	1,2,3,4,5,10	1	1
S_2	2,4,5	2	2
S_3	3	3	3
S_4	4,5	4	4
S_5	5	5	5
S_{10}	1,2,3,4,5,10	10	10

Table 6
4 Level Maximum Set Element

S_i	$R(S_i)$	$A(S_i)$	$R(S_i) \cap A(S_i)$
S_1	1,2,4,10	1	1
S_2	2,4	2	2
S_4	4	4	4
S_{10}	1,2,4,10	10	10

d) Decompose hierarchical level, such as shown in Table 3, Table 4, Table 5 and Table 6 above.

e) Interpretation structure model.

According to the division of the above factor level, the interpretation structure model diagram is drawn, and the hierarchical relationship is shown in Figure 2.

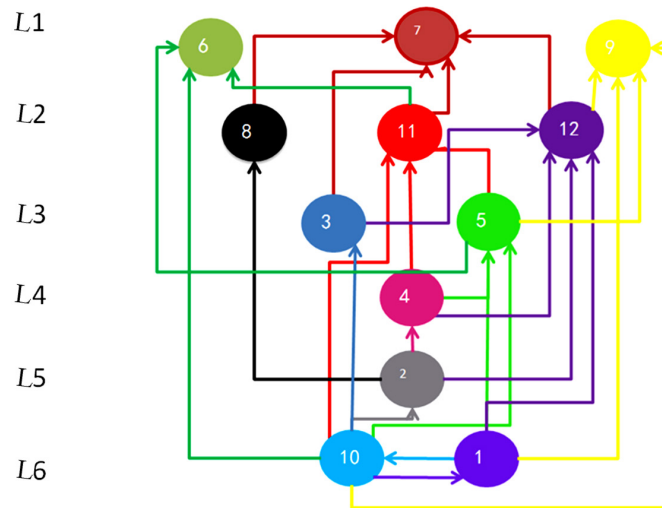


Figure 2
Interpretive Structural Model

It can be concluded from Figure 2 that the green logistics system of Dangshan is a multi-level hierarchical structure with 6 layers. The Interpretative Structural

Modeling determines the hierarchical relationship among the factors, which is obviously a hierarchical structure. As shown in Table 7:

Table 7
Results of Influencing Factors Analysis

Layers	Influencing factors	Influencing grade
L1	The market is unreasonable, lack of comprehensive service function, high cost and serious waste environment	Surface factor
L2	The green logistics technology is backward, the pear logistics system is unsound and the management level is backward	Superficial factor
L3	The logistics infrastructure is weak and the standard of green logistics is low.	Middle-level factor
L4	Logistics information level is low	Profound factor
L5	Lack of professional green logistics	Major factor
L6	The people concerned lack the awareness of green logistics and the government has not really implemented the green logistics	Essential factor

6. SUGGESTIONS BASED ON ISM STRUCTURE MODEL

Based on the analysis of the ISM structure model, the following countermeasures are proposed to promote the development of the green logistics of Dangshan pear.

6.1 Strengthen Publicity Education, Promote the Concept of Green Logistics and Implement Government Measures

Through the establishment of ISM model of the influence factors of green logistics development of Dangshan pear, the lack of green awareness and the government's failure

to implement the green logistics are the essential reasons to hinder the development of the Green Logistics. The lack of green logistics causes that Government measures are not well implemented, and vice versa. Setting up the awareness of green logistics will help to promote the standardization process of green logistics. Furthermore, professional third party logistics companies will improve management level, perfect green logistics system of crisp pear and lower the cost of green logistics.

Therefore, farmers, pear production enterprises and logistics companies should set up the concept of green logistics, continuously collect, organize and store all kinds of green information in the process of logistics, and timely

apply it to logistics. The government should strengthen the green propaganda education, so that farmers realize that their economic benefits can be realized through the green logistics of the pear. At the same time, farmers can release pear information by means of e-commerce platform, online trading, broaden the showed marketing channels, reduce showed the circulation of the intermediate links, reduce the wastage of the showed circulation produce too much, and carry out online trading, expand the marketing channel for pears, and remove redundant procedures and decrease the cost. Secondly, the government should provide guarantee for the greening of logistics in the aspect of regulatory policy. Dangshan County can formulate the policy of special fruit green logistics, commendation and support to the circulation and processing enterprises that carry out good effect of green logistics, and impose fines, rectification and even close down on the enterprises with serious pollution.

6.2 Strengthen the Cultivation of Green Logistics Professional Interpreter and Increase Investment in Infrastructure Construction

The analysis base on ISM structure model denote that the lack of professional green logistics interpreter lower the ability of integrating logistics information, which further leads to the imperfect logistics system of the pear. And the weakness of the infrastructure construction of pear logistics directly affects the high cost of the logistics.

First, Dangshan County can attract social green logistics talents by issuing a series of policies to attract talents. Second, we should make full use of relevant policies to fully mobilize the enthusiasm of logistics enterprises and universities and research institutions to exchange and cooperate with each other. To promote the combination of production, study and research, let the professionals with advanced management experience and advanced technology apply the scientific research results of advanced green logistics to the production and circulation of crisp pear, so as to improve the scientific and technological gold content of the pear industry. Thirdly, it is necessary to train and introduce the high-quality logistics management and professional and technical personnel who are familiar with the management of the supply chain of green agricultural products and the operation of the various links of the fruit logistics. Finally, the government can carry out the training of agricultural production technology through the methods of expert lectures and field teaching. Transmit advanced technology and information to farmers, issue green qualified certificates to them, which will encourage farmers to absorb advanced green logistics knowledge.

A superior man is equipped with advanced equipment to function. The high cost of self-construction of logistics infrastructure has left many farmers and logistics enterprises in a passive state. Dangshan County government should enhance infrastructure construction

(such as basic transportation facilities, specialized storage facilities, transport vehicles, etc.) The government can establish public logistics facilities through government grants, financing and public welfare programs, and rent them to farmers or logistics enterprises at a low price for a certain period of time.

6.3 Strengthen the Information and Standardization Construction of the Green Logistics

The low quality of informatization of Dangshan pear logistics leads to the low management quality of the people involved in the management of the pear logistics management, and it is not conducive to improving the logistics system. The low level of standardization of green logistics affects the sound logistics system of pears. There are a few loopholes due to imperfect standards of green logistics available to enterprises to escape the clutches of the law to produce and circulate pears and cause a large amount of waste that pollutes the environment. Therefore, the following suggestions are made:

It is critical to vigorously promote the standardized production of pear.

From the pruning, pollination, spraying the agriculture chemical, picking and packaging to pears, quality inspection, the whole process of pear production is supposed to be normalized and standardized. Vigorously promote pollution-free production technology, ban high-toxic and high-residue pesticides, and promote the bagging of pears, so as to ensure that the pesticide residues and heavy metal residues of fruits meet the standard of pollution-free fruits. In the links of packaging, transportation and loading and unloading, that carrying out the standards of logistics facilities and logistics tools which are in line with international standards contribute to achieve rationalization of logistics activities. Was formulated the physical and chemical indicators, sensory indicators, use indicators, and limit indicators of international integration. Was carried out on the origin of the atmosphere, soil composition test, control of pesticide use, improve the fruit standard system and testing system.

Measures also include strengthening the construction of electronic information infrastructure, establishing showed logistics management information system, developing showed the logistics tracking system, developing and popularizing broadband business service. Those measures may realize the e-commerce of logistics, improve the efficiency of logistics management, and achieve the resource sharing and information sharing on the whole pear industry chain. To realize the informatization of the internal management of the wholesale fruit market and logistics center, including transaction settlement, logistics management, customer management, and personnel management informatization. It is that real entry of market information through network and other media, so as to provide a realistic prospect for farmer and enterprises.

Leading market information reduces the uncertainty and blindness in the production and sales process.

6.4 Integrate Logistics Resources and Improve Logistics System

The integration of existing resources and construction of pear green supply chain contribute to build a modern logistics mode of pear SCM. The supply chain includes all processes of the production of the pears, processing of fruit products, storage, transportation, distribution, marketing and waste recovery. The logistics infrastructure, agricultural products information and standardization are affecting all aspects of the pear supply chain. Encourage farmers to set up a highly specialized production cooperation team, professional cooperatives and try to implement integrated production logistics system. The logistics planning of the field management and the harvesting, processing and storage of the pear trees in the area will be operated by the common mechanism. That integrating all logistics resources and making the advanced logistics equipment, advanced matching green logistics technology and expert professionals and making the logistics linking seamless contribute to ensure the smoothness of the whole process of logistics operation and high efficiency.

6.5 Energetically Develop Third-Party Logistics Enterprises and Raise the Standard of Management

It is very expensive for farmers and dealers to purchase fresh - keeping equipment and large scale equipment for transportation, it is of great significance to support the third-party logistics enterprises to reduce the cost of shortening the logistics to reduce the cost of the logistics. The third party logistics enables the products to form virtual organizations with information as the bridge and link between the warehouse, the processing industry, the transportation company, the distribution center and the retailers. The government should increase its support for third-party logistics enterprises, and incline to such enterprises from such aspects as tax reduction and subsidy, and eventually promote the rapid development of third-party logistics enterprises.

CONCLUSION AND DISCUSSION

ISM is a model which is mainly used to analyze complex social and economic system structural problems by qualitative analysis and quantitative analysis. It is subjective in some degree in the collection of the factors that affect the development of green logistics in the

process of establishing the ISM structure model, so it's important to look at the reliability of the data when you collect the data. Combined with a certain method (in this paper, Delphi method is used) can improve the accuracy of the comprehensive and inter-factor correlation of influencing factor data. This paper find the 12 factors that influence the development of Dangshan's pear using the interpretation structure model to and establishes the six-order interpretation structure model to analyze the 12 factors, and propose a reference plan for the development of the green logistics of Dangshan County and provide a precedent for the transformation of agricultural products logistics to green logistics in other regions.

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