

Current Marketing Situation and Service Model of Corn and Rice Seed Market in Southwest China

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Abstract: This article mainly uses a combination of strategic research methods and marketing theory to study this subject. Specifically, this article first investigates the seed market and the dealer's business model, and then analyzes the advantages of their service model. Through these methods to analyze the domestic and foreign mainstream seeds and study their marketing service model, we find that China's planting industry is still far away from foreign countries. At present, China's mainstream is still a single economic crop dual planting structure. This article takes the analysis of the corn and rice seed market in Southwest China as an example. There is still a single agricultural structure in Southwest China, the seed varieties are not good enough, and the price is poor, resulting in a low output rate. In addition, the impact of China's trade disputes in recent years has led to a significant reduction in China's imports of rice and corn seeds, and fewer high-quality seeds. China's food crisis will also become more severe in the later period. According to the survey results, China's grain imports have fallen by 23.6 compared with last year %, this is the lowest time in recent years. Therefore, we must enhance the quality of our country's seeds and improve the marketing model of China's planting industry, improve services, and ultimately guarantee China's food security. Finally, based on these research results and some existing problems, we proposed new service models that will greatly improve the existing seed marketing results in southwestern China. Next, we should integrate the proposed service model into the entire seed in the production, processing, transportation, sales, planting and growth of the company, of course, the most important thing is to provide excellent after-sales service and seize the customer group. To do this a huge project, we need to persevere.

1. Introduction

A word commonly used in China is "clothing, food, housing and transportation". From here, we

can see how important it is to protect the basic rights of food. Not only this, but also a "people take food as the sky." It has a different interpretation of food in every period of time, and the requirements for food are different. From ancient society can only rely on wild herbal food to live, to ancient society can master some basic grain cultivation techniques to solve the problem of food and clothing. Now materials have greatly enriched our society, and there are many ways to obtain food, but the most important thing is local cultivation, so we must be able to produce more and better quality food to meet people's increasing food Requirements, especially in China in recent years, this has become increasingly important.

China is a large agricultural country with a large cultivated area and a large population. The annual demand for crop seeds is more than 12.5 billion kilograms. Foreign seed industry giants have tried to enter the Chinese market since the late 1980s. China's seed market is large, and it is second only to the United States in the world. In the meantime, the international seed industry giants want to get a slice of the soup, and even occupy the monopoly of the Chinese market [1]. After China's accession to the WTO, not only can it introduce advanced foreign agricultural products and technologies, but it also makes it necessary for international seed industry giants to enter China. This is a problem that national seed industry enterprises must face. International seed industry giants have advantages in capital, technology and marketing management, which poses a huge challenge to the national seed industry enterprises [2].

2. Related Work and This Paper's Work

Husnan, L. A proposed in the paper to develop the food industry in a manner that controls industrial security. He mentioned that food security is a fundamental issue related to people's livelihood. The state must effectively control the food industry and have effective planning for the development of the grain industry, the most important of which is to rely on state capital to introduce advanced technological forces to build an advantageous brand. In the end, the successful development of enterprises will better serve the national grain industry [3]. Latifa A Al_husnan pointed out in the paper that the country can not only see the food industry in front of it, it should take Yang Guofang more long-term, and look at the development of excellent foreign food industry, so as to formulate the industry development confidence and industry future suitable for him. In the end, it is necessary to enable China's grain enterprises to win their abandoned places in the harsh environment of high foreign competition. Of course, the key to accomplishing these things is to have a good control of the grain industry with the country [4]. Gauchan, D and other scholars have discussed the issues related to China's food security in a multi-layered manner from a more perspective. It is pointed out that the infringement of food interests is the primary mission of our country's food security. The food industry security is precisely related to the immediate well-being and interests of a country's nationals, and then related to the rights and interests of the country [5]. From these research scholars, we can find that these research scholars are based on the grain industry as a starting point, and do not fundamentally solve the food crisis. This article will use the rice and corn seed market as a research point to solve the food crisis.

This article provides a detailed description of the current marketing status and service model of the corn and rice seed market in Southwest China from the following aspects: First, it introduces the background and trends of rice and corn farming in Southwest China, analyzes and expounds the purpose and significance of this study, at the same time, the research content and research methods of this article are proposed. The second is the introduction of the corn and rice seed market, which provides the necessary theoretical basis for the follow-up service model research. Third, it analyzes the current marketing status of the corn and rice seed market in Southwest China. By consulting relevant public information and the company's annual report, the terminal sales of corn and rice

seed markets in the southwest region were investigated. Use the strategic research method to establish an analytical model, analyze him in depth and analyze the shortcomings and advantages, advantages, disadvantages, opportunities, threats, summarize the current development problems, formulate research directions for its main problems, and develop the current seed market Provide basis for formulation. Finally, this article makes a general elaboration and summary. At the same time, it points out the shortcomings and deficiencies in the research, and puts forward the prospect of further research and development of this research.

3. Summary of Relevant Information

3.1. Policy Environment

In recent years, our country has not stopped the pace of reforming the agricultural industry, and the trend of reform is growing. At the same time, with the deepening of the reform, the problems exposed have become greater and greater. The first is the market chaos caused by the non-standard seed market, which is mainly caused by the lack of supervision and regulation. If this situation is not corrected, as the market enters the transition period, the problem will become more and more serious, and the consequence will be the complete collapse of China's planting. Now the regulatory authorities are faced with tens of thousands of seed companies, and each company has a variety of seeds. Relying on the existing law enforcement team alone is not sufficient for this task. This requires our regulatory department to improve its management model, strengthen the management system, and optimize the regulatory process. So as to make the illegal acts in actual production and operation have nothing to do with [6]. As the seed market continues to develop in a healthy and orderly direction, and increasingly mature management methods continue to be introduced, I believe that our market will become more and more healthy and orderly in the future. In the future, the development of our seed industry will also start from the international perspective and improve existing laws and regulations. Provide excellent protection for our seed industry, and achieve a good ecology according to law [7].

3.2. External Macro Environment of Rice Seed Market

At present, because the world's population is still developing explosively, so many people have intensified the huge demand for food, although global food production is growing at an alarming rate, from the original less than 700 million tons to nearly 1.8 billion tons This process took nearly 40 years and eventually reached nearly 2.2 billion tons. This took another 22 years to grow by 400 million tons. We can find that the acceleration of food growth has slowed down. This is caused by a series of abnormal climates caused by global warming. With the environmental problems we face in the future, such as: soil erosion, water resources Lack etc. The United Nations made a prediction that by mid-century, global food production will be reduced by nearly a quarter. Of course, this is not the most serious problem. The most serious is that as the population increases, the demand for food will become more urgent, especially in Asia, where the population density is the highest, and these areas are also the most demanding for food. In the future, our demand for grain will increase by at least 35%. And this is contrary to the current environment. From these aspects, we can know what kind of problem we will face. Therefore, we must speed up our development, strive to improve our grain industry structure, and optimize our layout. To do this, we need to increase our planting area or increase our planting efficiency. However, due to the rapid population increase, the land suitable for planting has become scarcer. We can only solve it by increasing the efficiency per unit of yield. To improve the planting efficiency, it is essential to have good seeds, and only good seeds can bring generous returns. Especially in Asia, good seeds have already risen into the national

strategy, so we must strive to develop the planting industry, improve the service level of the industry, and achieve the goal of increasing food production on limited land [8].

From the most common rice in our life, he is processed from rice. It is mainly used as a ration for human beings, but the current situation shows that animal breeding also accounts for a large proportion. China's rice sales have been rising since 2004, but the magnitude of the increase has not been great, and it has not yet constituted a great crisis for social stability. This is good news for us and has provided for our country in recent years. Lateral reforms have provided effective help, and I believe that the same will be true of the development trend in recent years. In recent years, the use of rice in China has been distributed in the following aspects: one is for human consumption, and 20 are for feeding animals. Of course, a large part is used in the deep processing of rice. Deep processing provides very rich Material products. In terms of rice sales in 2016, 107.65 million tons of grain was used for food, accounting for 74.54% of the total, 10.85 million tons were used for feeding animals, accounting for 7.51% of the total, and 25.91 million tons for deep processing it accounts for 17.94% of the total [9]. Comparing with the data in recent years, we find that most of the food and feed animals have basically not changed every year, but with the development of new energy in recent years, the demand for biofuels has increased significantly [10].

3.3. Corn Production and Consumption in China

Unlike rice, wheat, and soybeans, which are native to China, corn is native to Central and South America. It was only after Columbus discovered the New World of the Americas that corn spread to other parts of the world. There was no record about corn until the Jiajing period of the Ming Dynasty. The peach planting of corn in China in the middle and late 19th century has developed rapidly. After the 19th century, the peach planting of corn has spread all over the country, and the corn planting in China has spread all the poor. In the early days of the founding of the People's Republic of China, the sown area of corn in China accounted for about the sown area of grain, ranking third after rice and wheat. By the end of this year, the domestic corn planting area has risen to 10,000 hectares, accounting for China's grain planting area and surpassing the rice planting area for the first time in the year to become the largest crop and grain crop in China. Except for Beijing and Guangdong provinces and cities, the annual corn planting in other provinces in China has grown on an annual basis. The annual corn production in China is as high as ten thousand tons, ranking second only to rice production. In recent years, in addition to the three northeastern provinces of our traditional corn production base, the provinces with corn output of more than ten thousand tons are also Hebei, Inner Mongolia, Shandong and Henan [11].

Corn is an important feed material. With the increase in domestic demand for meat products, China's corn output has increased rapidly in the past few decades. In 1949, our corn production was 12.42 million tons, and the annual output ranked behind rice and wheat. By 2010, China's corn output had increased to 177.52 million tons. In the past 60 years, the output has increased by 14 times. Especially after 1991, the average annual growth rate of corn production is much higher than that of rice and wheat. During the period, the increase in corn yield has led to an increase in total corn production, which is an increase in the sown area [12].

4. Market Research Practice

4.1. Research Content and Methods

(1) Literature data method

During the writing of this topic, a large number of electronic resources and book resources were consulted, and a large number of literature and journals on food security, food trade, and food seed

investment were collected, which accumulated a solid theoretical foundation.

(2) Comparative analysis

The comparative analysis method uses two different types of things for comparison, highlighting their differences and refining their similarities. This method mainly uses horizontal contrast and vertical contrast, and uses a combination of theory and practice for comparison. On the basis of summarizing the two modes of grain seed direct trade and grain seed investment, this topic compares and analyzes the situation of food security resources allocation in different countries under different modes. By summing up its advanced experience and combining China's national conditions And the international environment, put forward countermeasures and suggestions that are suitable for the international allocation of China's food security resources

(3) Combination of empirical analysis and normative analysis

This topic uses empirical analysis to analyze the degree of difference and matching between China's food production fluctuations and world food production fluctuations, and to determine the feasibility of China's use of the world food market. On this basis, the use of standardized analysis methods to analyze the international allocation of China's food security resources. The main models and their relations, and summarized and evaluated the comparative advantages of China's seed trade and the current status of seed investment.

4.2. Research Route

This article studies the development of the seed industry on the basis of economics. This article will provide supplementary explanations through strategic research theory and organizational theory. The most important thing here is to use strategic research theory into marketing to explain the development of the seed industry. Through the market research, promotion area sorting, questionnaire survey, variety classification, enterprise main body profit model and other data, research on the subject. Starting from the analysis and research of the macro environment faced by the hybrid rice seed and corn seed business, it provides a basic platform for the strategic selection of the hybrid rice seed and corn seed business.

Carry out analysis and research on competitors. First, analyze the competition pattern of the main players in the industry, the marketing model and profitability of the main varieties, analyze the key constraints of the strategy selected for the hybrid rice seed and corn seed business, and get the strategic choice and best service for variety development mode. The research route is shown in Figure 1:

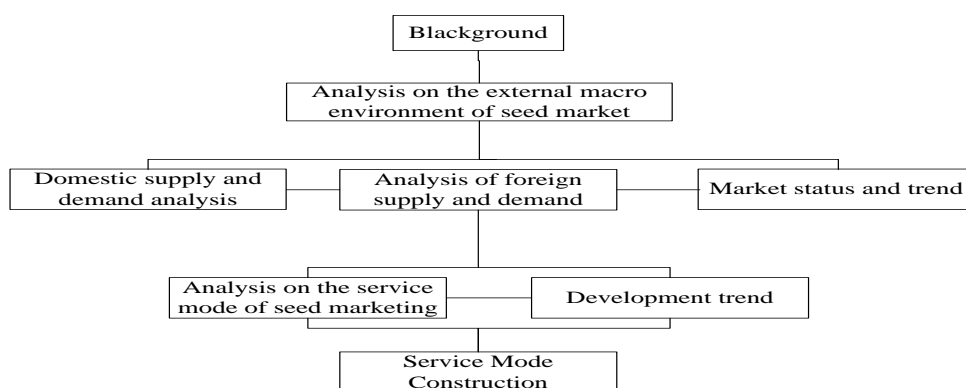


Figure 1. Study circuit diagram

4.3. Research Data

The research data of this article will be obtained from the following aspects: One is from the

macro data released by China every year, such as: "China Statistical Yearbook", "China Trade Foreign Economic Statistics Yearbook", "China Agricultural Products Price Survey Yearbook", "National Agricultural Product Cost "Compilation of income information", of course, is indispensable from the data released by the Ministry of Agriculture and the Ministry of Commerce. The other is the agricultural macro data released from abroad, for example: the US Department of Agriculture data (USDA, PS Donline and FAO database and other data. Finally, there are Internet agricultural data in recent years, for example: released by major e-commerce platforms Data. Then we also referred to the "China Rice Value Chain Research" project data. This is a project jointly developed by the Asian Development Bank (ABD) and the International Food Policy Institute (IFPRI). Obtained data on the rice industry in Heilongjiang and Jiangxi provinces in China and in India, Bangladesh and Vietnam. The third data comes from the International Food Policy Research Institute (IFPRI) Institute of Agricultural Economic Development (IAED) of the Chinese Academy of Agricultural Sciences and Agri TT. "Chinese Rice Value Chain Financial Innovation Research", specifically the "AgriTT" Research Challenge Fund (RCF) project jointly funded by the British Department for International Development (DFID), the Chinese Ministry of Agriculture and the African Agricultural Research Forum (FAFR) (No. 1484): Innovative Financing and Rice Value Chain Development in Cambodia, China and Lao PDR: Cross-country Lessons and Sharing, access to data on rice and corn seeds in Guangxi, China.

5. Experimental Results and Analysis

5.1. Rice Marketing Survey in Southwest China

(1) Investigation and research on the planting area of rice seeds in Southwest China in recent years

It can be seen from Table 1 that from 2010 to 2019, we take Chongqing as the representative in the southwest region. The annual grain planting area is 2.5155 million to 2.9007 million hm². The ratio of rice to grain planting area is 27.39%, and the annual planting area is 65.21 10,000 to 790,800 hm². In 2010, the grain sown area reached 2.5165 million hm², but from 2010 to 2012, the grain sown area decreased year by year and finally reached 2.155 million hm². From 2012 to 2019, the grain sown area increased every year, 2017 after the year, it is basically above 2.25 million hm². In 2010, the sown area of rice was 749,300 hm², which was reduced to 652,100 hm² in 2013. However, from 2014 to 2019, the sown area of rice showed an increasing trend year by year. Among them, from 2015 onwards, it can basically be fixed at more than 680,000 hm² every year. The details are shown in the Table 1:

Table 1. Annual change of rice planting area and yield in Chongqing 2010-2019

Year	Planting area			Total production		
	Grain(10 ⁴ hm ²)	Rice(10 ⁴ hm ²)	Proportion of rice(%)	Grain(10 ⁴ t)	Rice(10 ⁴ t)	Proportion of rice(%)
2010	251.65	74.93	29.78	1144.57	509.55	44.52
2011	250.13	74.79	29.90	1168.19	521.43	44.64
2012	215.55	67.23	31.19	808.40	344.90	42.66
2013	219.58	65.21	29.70	1088.00	491.59	45.18
2014	221.54	67.35	30.40	1153.20	529.39	45.91
2015	222.95	68.20	30.59	1137.20	511.30	44.96
2016	225.39	68.39	30.48	1156.13	518.57	44.85
2017	225.94	68.65	30.38	1126.90	493.50	43.79
2018	225.96	68.70	30.40	1138.54	498.00	43.74
2019	225.39	68.87	30.56	1148.13	503.08	43.82

(2) Import and export market of rice seeds in Southwest China

We take the import and export of rice seeds in Southwest China in 2019 as a case study. The results are shown in Figure 2. It can be seen from Figure 2 that in 2019, the import of rice seeds in Southwest China fell for the first time. Due to the poor external environment of trade disputes, the import power is relatively reduced. Among them, from January to December 2019, China imported 3.08 million tons of rice, down 23.6% year on year, and exported 2.089 million kg of rice, up 74.6% year on year, the highest level since 2004.

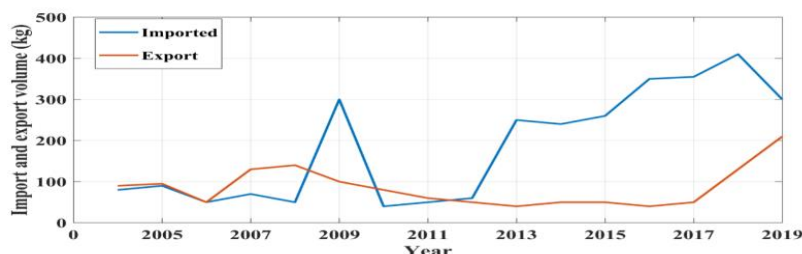


Figure 2. Import and export of rice seeds

(3) Research on the rice purchase price market in the Southwest

Based on the purchase price in 2019, the results are shown in Figure 3. It can be seen from Figure 3 that the lowest purchase price of rice will continue to be lowered in 2019, and the market price of rice will be reduced from 1.50 yuan / jin to 1.30 yuan / Jin. It can be seen from this that the country's great intention to promote the structural reform of agricultural supply side. Under the joint influence of domestic supply and demand situation and collection and storage policies, the rice market in Southwest China shows a "stable active" state. The rice price trend in the whole year can be roughly divided into two stages: the first stage is when the market is in a stable state, such as the market trend of 2019 annual rice from the first quarter to the third quarter, and the market table in the fourth quarter. On the contrary, the market trend of 2019 rice production as the main grain source has shown a precipice decline.

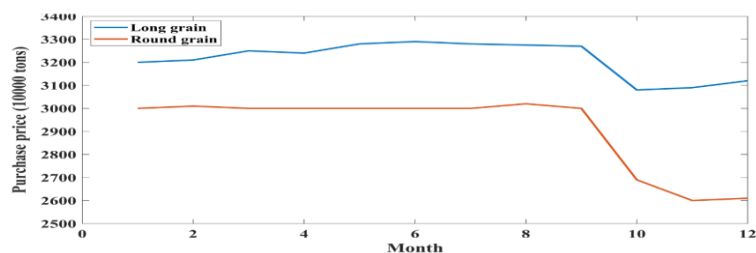


Figure 3. Price trend in Southwest China

5.2. Investigation and Analysis of Corn in Southwest China

(1) China's corn import and export volume in recent years

After 2020, with the decrease of domestic temporary storage corn inventory, the import growth trend of corn and substitutes is strong, as shown in Figure 4. It can be seen from Figure 4 that after July 2019, influenced by the Sino US trade war, the cost of us grain import has increased significantly, the door of us grain import has been basically closed, and the price of grain imported from other countries has also increased. In recent years, the proportion of American corn in China's imported corn has been very small. After the tariff is imposed, it has little impact on the domestic corn import. In the short term, the main impact is the import of sorghum and barley, especially Australia's barley production reduction in 2019 and China's anti-dumping investigation on Australian barley since November, which further affects the barley import. Therefore, it is estimated

that in 2010 / 2020, China's corn import will be 3 million tons, a decrease of 470000 tons compared with the previous year; barley import will be 6 million tons (including 3 million tons of wine barley), a decrease of 2.14 million tons compared with the previous year; sorghum import will be 1.6 million tons, a decrease of 2.84 million tons compared with the previous year. The total amount of corn, barley and sorghum is expected to be 10.6 million tons, a decrease of 5.45 million tons compared with the previous year; the decrease of imported grain will lead to the increase of domestic corn consumption.

From the perspective of future development: due to the gradual tightening of domestic corn supply, the price is rising, higher than the price of corn in the international market, and the import pressure is increasing; Although the Sino US trade war will lead to the reduction of corn and substitutes imported directly from the United States, due to its small proportion in the imported corn and limited impact, China can make up for it by expanding the import of corn and substitutes from Ukraine and other countries, so it has a certain impact on the import volume in the short term, but a small impact in the long term.

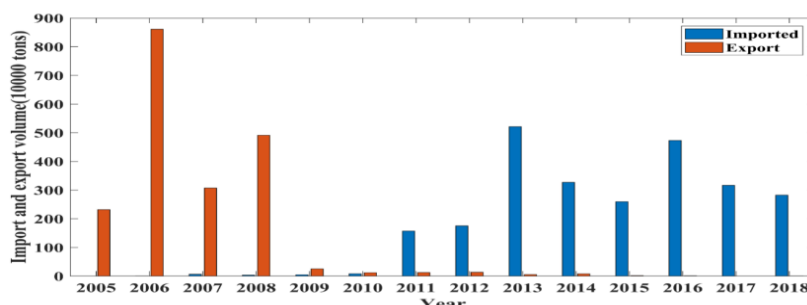


Figure 4. China's corn import and export volume this year

(2) Analysis of factors affecting the marketing price of corn seeds

At present, the corn seed market is mainly composed of seed producers as sellers and numerous corn producers as buyers. The regional monopoly has been broken, and a unified market in the southwest is gradually being formed. According to the differences in market forces between the supply and demand of seeds, the price of the seed market is formed as follows.

In the case of price alliance, the market decision is relatively simple, mainly composed of seed production cost, variety right expense, processing cost, manufacturer's economic profit and monopoly profit, dealer's profit, retailer's profit, etc. take Zhengdan 958 (coating) of a brand produced in 2019 as an example, and its price composition proportion is shown in Figure 5. It can be seen from the figure that the variety quality is high and the seller's market position in corn seed market protected by property right is strong, while the buyer's is relatively weak, and the formation of seed market is greatly affected by supply. Several enterprises with large market share hold more market demand information, and seed production and processing are basically integrated; at the same time, the number of suppliers is small and the number of consumers is large, so consumers often passively accept the seed price set by seed production enterprises.

(3) Analysis of corn seed varieties in Southwest China

The research and development of corn varieties is the foundation of corn industry. China has always attached great importance to the research and development of new corn varieties. In recent years, China has made outstanding achievements in the research and development of seeds, with 138 excellent varieties. As shown in Table 2, from our research results, from 2010 to 2019, there are 22 varieties with the largest promotion area of more than 10 million mu, including 4 varieties with an area of more than 30 million mu and 2 varieties with an area of 2000-29.99 million mu.

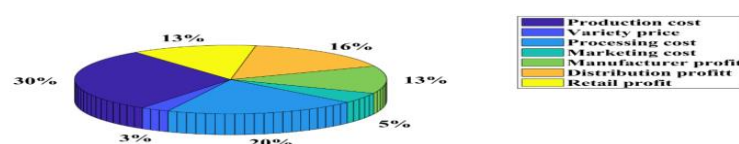


Figure 5. Proportion of corn seed market factors

Table 2. More than 10 million mu of seed varieties in China

Over 30 million mu	20-30 million mu	10-20 million mu	
Zhongdan 2	Danyu	Lu Yuandan 4	Yedan 12
Danyu 13		Yandan 14	Zhendan 14
Yedan 13		Zhandan 2	Yedan 19
Nongda 108		Yedan 4	Sidan 19
	Yedan 2	Jidan 101	Benyu 6
		Shendan 7	Xiyu 3
		Sidan 8	Zhendan 958
		Nudan 50	Yuyu 22

6. Service Mode Analysis

According to the above analysis results, we found that although the southwestern region of China is a large-scale planting area, there is still a long way to go when you are a strong area. In the future, you can improve the service model from the following aspects:

(1) In terms of production services. We must pay attention to quality, especially the two indicators of bud rate and purity. It is necessary to ensure that the production quality of the varieties does not decline for three consecutive years, that the best-selling varieties are not blindly produced, and that various seed varieties are not backlogged and stored. Finally, it is necessary to avoid production technology risks, and to prevent production cuts, cut-offs, quality accidents, and scrapping of best-selling varieties due to technical reasons.

(2) In terms of channel construction services. One is to complement and adjust the marketing channels of corn and rice, balance variety resources, and make full use of advantages. The second is to standardize operations, implement dual brand, multi-channel, and product line differentiated operation ideas. Multi-brand packaging promotes the increase of individual varieties, and the differentiation of the same variety promotes sales. The third is that the incentive requirements for channel customers are simple, clear, accurate, timely, and comprehensively publicize and implement the company's incentive policy, effectively mobilizing the enthusiasm of marketing channels.

(3) In terms of sales management services. First of all, we must standardize the sales process, which includes determining sales ideas-classification channels-building channels-customer visits-communication and understanding-reaching consensus-cooperation intention-business philosophy communication-delivery of goods-policy implementation-auxiliary sales-checkout -Transfer of goods-End of sale-Return-Financial control-Settlement, etc. Secondly, we must focus on marketing services, which includes planning and layout of varieties, as well as forecasting the development prospects of the industry, then understanding the current market sales status, and planning marketing concepts and directions. Of course, effective trade policies and customer communication are also crucial. According to different customers, regional and market conditions jointly develop marketing methods. In addition, we have to keep close contact with the construction of the municipal network and record practical and detailed sales plans. In the plan, we should clearly define common goals and tasks. When calculating accounts receivable, we must express company policies and customer interests through numbers. Afterwards, we should discuss countermeasures for market events or changes, and immediately investigate and resolve market

complaints to eliminate hidden dangers. Finally, we must provide our partners with high-quality services. We must provide services to partners from the following aspects. First, training can provide entrepreneurs with training and business management, which can improve collaboration enthusiasm and operational capabilities. Second, Can conduct business plans, assist traders with long-term business plans, and, third, develop marketing teams to help representatives manage financial affairs.

(4) In terms of logistics and transportation services. The first is accuracy, which requires accurate variety, quantity, and coding, especially the goods out of stock, customer units, and logistics code scanning. It is related to the market serial goods query. If there is a variety out of stock scanning, scanning customer error, etc., the market cannot query, customers complaints will increase. The second is convenience. Changes in market sales have resulted in the phenomenon of customers eating less and eating more meals. We are required to facilitate customers. Thirdly, it is fast. Due to lack of funds, customers need to ship goods when working with funds, which requires us to have a convenient and fast logistics system. Fourth, it is safe. There are scattered leakage and rain scrapping in the transportation of seeds. The value of the goods is the customer's assets and it is required to be as safe as possible.

7. Conclusion

Through the above analysis, we can find that the lack of technology and management models are the most common difficulties faced by corn and rice in the southwestern region. Due to the relatively small scale of seed research and development in China, it is difficult to borrow enough support. Secondly, China's poor external environment has had a big impact. In addition, the impact of supply-side reforms and the instability of the quality of rice purchases will all pose obstacles to the development of China's seed enterprises. Therefore, in promoting the development of China's seed processing industry, the Chinese government must pay attention to the above issues.

In addition, further research and analysis shows that there is a huge market for seed processing plants, and expanding the scale can reduce the average processing cost of seeds. In addition, the establishment of brands and the formation of contractual relationships with farmers can reduce the cost of seed processing, thereby improving the cost competitiveness of seed processing in China. Private companies will be more cost-competitive, so encouraging diversified subjects to enter the seed processing industry can improve the development of the seed processing industry. The farmer + enterprise cooperation method can also reduce the cost of the rice processing industry, thereby improving the competitiveness of the rice processing sector.

The service should run through the entire process of seed production, processing, logistics, sales, finance, field planting, growth, management, and harvest. It is not a single technical work, but a vast technical and marketing management project that requires the full cooperation of all departments of the company. In order to fully develop, we must establish a corresponding organizational structure and resource allocation in terms of positioning. China's seed industry is undergoing transformation, and only long-term continuous high-quality service is the ultimate magic weapon to win the seed market terminal.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this

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Conflict of Interest

The author states that this article has no conflict of interest.

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