Study on the Influence of Pig Farmers on the Optimization of the Distribution Structure of Pig Industry: A Survey and Analysis in Dujiangyan City

Wen Mao, Xiumin Wu*, Zhijing Zhao, Jiahao Zhu

School of Sichuan Agricultural University Chengdu, China

*Corresponding Author

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Abstract: From the live pig industry development at home and abroad, the development policy guidance and the configuration structure is still in the process of constant optimization and adjustment, but periodic imbalances occur. This paper proposes that farmers have hindered the flow of various factors in the process of pig breeding, which objectively causes a large number of labor in the industry but a small number of technology and capital input, and makes it become a labor-intensive industry. This paper conducts in-depth analysis of impediments that rural farmers have had in the process of structural transformation and provides suggestions for its better development.

1. Research Background

The pig industry is the basic industry that affect people's livelihood in China, which occupies an important position in the national economy. According to the latest statistics released by the National Bureau of Statistics, the slaughtering stock of live pigs in China was 68,861 million, and the breeding stock of live pigs in China was 433.25 million in 2017. The slaughter volume increased by 0.5% and the breeding number was 0.4% compared with 2016. Relevant data show that since the promotion of large-scale breeding, the specific number and proportion of pigs that had been bred in scattered way have been continuously decreasing from 1998 to 2017, but the reduction rate slow down year by year, and the scattered breeding still accounts for the majority. The pig production has been decreasing under the background of the implementation of large-scale breeding, so if the farming retail has hindered the optimization of the element allocation structure in the pig industry? To verify this problem, we conducted the following survey and analysis.

2. Investigation and Analysis

Through the analysis of domestic and overseas realistic condition and literature review about pig breeding, the basic rule for the evolution of the allocation structure of pig industry in China is that the proportion of technical and financial elements is constantly increasing, and the proportion of other traditional elements such as labor is decreasing. But the speed of optimization and adjustment about structure on the input elements' allocation is lower than the speed of pig industry development. We assume that the free-range pig farmers, which are the mainstay of pig breeding, is the main reason that hinder the optimization of the distribution structure. Due to the limitation of their own quality and ability, the farmers hinder the inflow of technology, capital, and withdrawal of labor from the pig industry.

2.1 Analysis of the Influence of Pig Farmers on the Entry of Technical Factors

As one of the three major factors of pig breeding, technology plays an important role in the efficiency and quality of pig breeding. Therefore, having reasonable and advanced breeding techniques is of great significance to the transformation of the whole pig industry. According to the source of technology, 97% of the farmers are self-taught to acquire breeding technology, and most of the farmers indicate that they want to introduce more advanced farming techniques, accounting for 79% of the total. We can think that although farmers think that they have mastered the basic pig breeding technology, they still hope to obtain advanced technologies such as

production management, nutrition, and epidemic prevention through other channels, especially the protection of diseases, in order to increase the efficiency and quality of pig breeding. However, the channels for farmers to obtain technical support are very limited and they have rarely received it. There are three main reasons for this result: First, the farmers are conservative; Second, the basic training of the government is not enough. The farmers interviewed by the survey don't feel the government's policies and behavioral support for the standardization of pig breeding, so the farmers are more passive in the introduction of technology; Third, the training given by commercial companies is not only of low quality, but also shows strong commercial purpose. The company's intensive marketing lead to the failure of the training. From the perspective of grasping the basic skills of pig breeding, 90% of people believe that it is easy to master, and there are 59.3%, 37.0% and 3.7% of them of graduates from elementary schools, junior high schools, and high schools who respectively think that. Among the farmers with difficulties, 50% of them have primary qualifications, 50% of them have junior high school qualifications and no one has high school degree. The "easy-to-use" technologies described by most farmers mainly refer to the traditional basic technologies of pig breeding, which derived form years top-down experience and are not advanced, scientific. The low cultural quality of farmers has a direct impact on the acquiring and use of various skills, and thus the farmers adopt a passive breeding attitude due to lack of confidence in their ability to mater and apply technology in pig breeding.

2.2 Analysis of the Influence of Pig Farmers on the Entry of Capital Factors

Although the continuous price fluctuation of pig market in recent years increases the risk and cost of breeding pigs, the survey results show that 66% of farmers still want to breed more pigs. Most farmers breed pigs in order to increase their income. They want to expand the scale of pig breeding, so that they have greater hope of obtaining more profits. Farmers who do not want to expand their farms are mainly because that their current capacity can only bear the cost of existing scale. It can be seen that farmers have different opinions on whether to expand the scale of farming, and lack rational and scientific analysis of their existing capabilities and market conditions. At present, farmers' access to capital mainly includes their own funds, government subsidies, loans to banks, loans to relatives and friends, etc. 100% of the farmers surveyed engaged in pig farming capital from their own funds, and 40% borrowed from relatives and friends to obtain funds, and 5% of them received loans from financial institutions such as banks. It can be seen that self-owned funds are the major components of the funds raised by farmers for raising live pigs. Banks and rural credit cooperatives provide loan service, but due to the high requirements and complicated procedures for applicants, there are very few farmers to choose the financing way. And the private financial institutions, which are usually with non-standard management and high interest, must inevitably increase the pressure of the farmers, so most farmers choose to borrow money from relatives and friends to solve the funding problem. Such financing structure is obviously not scientific and reasonable, which is not conducive to the continuity of cash flow, and high-interest loan increase the burden on farmers. In addition, there are differences in the utilization and arrangement of funds for pig breeding. Their lack of market judgment, weak awareness of capital planning and use, unreasonable use of funds, blind investment, ultimately make cash flow difficult.

2.3 Analysis of the Influence of Pig Farmers on the Withdrawal of Labor Factors from the Pig Industry

In China, pig breeding is traditional agriculture, and 97% of the farmers surveyed regard pig breeding as an irreplaceable means of obtaining income. The main reason is that farmers lack other modern technologies and have low levels of education. They cannot adapt to the requirements of modern work, so they can only choose traditional pig breeding for income. 97% of farmers think that breeding pigs is a continuation of a habitual and traditional behavior, 3% of farmers don't think so. Because most farmers have the tradition of breeding pigs for generations, and they are not willing to take on new agricultural projects, labor force is reluctant to withdraw from hog farming, which will affect the upgrading of the pig industrial structure. Two problems are reflected by the phenomenon, of which, for one, because of their own quality and ability, lack of young labor

engaged in the work of other modern agriculture and work, the farmers rely on pig breeding for revenue. For the other, because of the influence of traditional concepts and customs, farmers also have ideological dependence on pig breeding, so they are reluctant to withdraw from the pig breeding industry.

3. Research Conclusions and Suggestions

3.1 Research conclusion

3.1.1 Pig farmers hinder the entry of technical factors into the pig industry

Due to the low education level and weak awareness of the overall situation, the farmers are very passive in the development, reference and use of pig breeding technology. They have misunderstanding in the scientific technology about pig breeding, and still maintain the traditional breeding concepts and methods. A very sharp contradiction has appeared in the process of introducing new technologies: of which, they want to follow the trend of the times to introduce new technologies in accordance, but they are limited by their own ideological qualities and abilities. There is no scientific understanding of technology, which has caused the entire retail market to become one of the factors that hinder the inflow of technology in the pig industry. This affects the optimization of the allocation structure of the entire pig industry and the upgrading and transformation of the retail pig-breeding industry.

3.1.2 Pig farmers hinder the entry of capital into the pig industry

First of all, most of the free-range rural farmers have low levels of knowledge. In the absence of scientific and rational analysis, the proportion of capital input is arbitrary and improper, resulting in the phenomenon of rob Peter to pay Paul. Sometimes they blindly choosing to expand the scale of pig breeding not only increases its own risk, but also increases the burden of capital. Secondly, the restrictions on family conditions and academic qualifications cause that they lack access to breeding funds, which led to difficulties in the investment and turnover, thus exacerbating the difficulty of capital inflows.

3.1.3 Pig farmers hinder the withdrawal of labor from the pig industry

Even if profits are low, farmers still use pig breeding as an irreplaceable way of income. From the conception, pig breeding, as a traditional breeding industry, has a strong continuation. In terms of the quality of labor, they lack the skills and abilities to engage in other industries, pig breeding will not be easily abandoned. It shows that it is difficult for the labor to exit the pig breeding industry because of the large dependence on live pig breeding.

3.2 Suggestions

3.2.1 Strengthen technical training and support

Since farmers have passive characteristics in the introduction of technology, the government should firstly increase the willingness of farmers to adopt new technology for live pig rearing by actively increase the support and propaganda for pig breeding technology, vigorously promote the construction of pig raising technical team, and improve technical guidance and services, thus improve the willingness of farmers to adopt new technology for live pig breeding. What’s more, the government should increase the amount of technology input, strengthen the training of production management techniques, introduce advanced pig breeding technology at home and abroad, and strive to reduce the cost of pig breeding.

3.2.2 Relax financial policy and improve the information sharing and sharing mechanism.

To achieve the transformation of the allocation of structural elements of pig industry, the state should continue to provide policy support and investment funds to solve the financing difficulties and lack of funding sources, and offer certain preferential credit, at the same time, adhere to the direction of large-scale breeding, in a timely manner to guide and support the retail industry

transformation.

3.2.3 Adjust supportive policies to help the labor force withdraw or transform.

In order to optimize the allocation of pig industry factors, the state should encourage and help farmers with low quality level to upgrade or quit the pig breeding industry. For example, for farmers who choose to continue in the pig-breeding industry, the government should actively lead them to standardization and even large-scale farming, give them support on technology and capital, and guide them to improve breeding efficiency through breeding standards; For farmers opting out of pig breeding industry, the government can improve the ability and opportunities of peasant households to engage in other industries by establishing employment service stations, employment subsidies, providing job opportunities, and providing employment training.

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