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# Analysis on Business Organizational Form and Development of Waterfowl Industry

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**Abstract** Waterfowl industry is an essential part of modern agricultural industry system. Enterprises and breeding farmers in waterfowl industry are new agricultural business entities, backbones for development of waterfowl industry, and main undertakers of business risks and major promoters of industry development. From the survey and analysis of several enterprises, farmers and business organizational form of waterfowl industry, it concluded that the business organizational form and the relationship between interested parties exert great influence on the development of waterfowl industry. According to these, it came up recommendations including optimizing business organizational form and reasonably selecting logistics mode according to profits and risks of business entities in the industry chain and main points of input and technological progress, in the hope of helping enterprises to resist risks, conduct scientific management, so as to promote stable development of waterfowl industry.

**Key words** Waterfowl industry, Business organizations, Smiling curve, Logistics mode

## 1 Introduction

Waterfowl industry is an essential part of modern agricultural industry system. According to the statistics of the national modern agricultural industry technological system waterfowl industry economy research team about 21 major waterfowl production provinces, waterfowl slaughter reached 3.7 billion pieces, egg production reached 3.73 million tons, output value was up to 166.71 billion yuan in 2015, thus waterfowl industry has become great support for agricultural economic development. In business of waterfowl industry, new agricultural business entities like enterprises are backbones for the development of waterfowl industry. Enterprises should be responsible for production organization and technological progress in the process of industry development, and also responsible for product processing, product circulation and market expansion. Thus, enterprises assume great responsibility in waterfowl products from production to consumption and from breeding farms to dining tables. Besides, in the situation of rapidly changing market economy and technological progress, enterprises should undertake risks from market, technologies, and the society. Therefore, analyzing business management of waterfowl enterprises and pointing out progress direction and development measures will be of great significance.

## 2 Taking effective production and organizational form to manage or avoid business risks

Due to special characteristics of waterfowl, waterfowl breeding and management enterprises are subject to impact of breeding risks, market fluctuation risks, technology risks, and disease prevention and control. According to survey of industry economy research team about many enterprises and new agricultural business enti-

ties, nearly all enterprises have once suffered impact of risks. Statistics show that 8% risks come from variety quality, 5% from management ability, 30% from market price fluctuation, 35% from epidemic diseases, and 22% from climatic factor. Further analysis of reasons for these risks indicates that market risks are mainly resulted from out of balance in market supply and demand and price fluctuation, while risks of epidemic diseases and climatic factors are mainly due to backward breeding method and simple facility environment. According to this, the industry economy research team contended that market risks can be controlled through adjusting market supply, specifically, implementing moderate scale breeding and reasonably controlling the breeding scale in the whole country, and increasing cold storage construction and breeding number, and annual breeding batch short-term adjustment mechanism at the enterprise level, to establish market supply and demand balancing mechanism through cold storage, adapt to market demands and balance market supply and demands through adjusting slaughter and product supply, so as to prevent and evade risks. For risk control of epidemic diseases and climatic factors, apart from improving the immunity mechanism, it is required to implement standardized healthy breeding, increase input in breeding facilities, and improve breeding environment conditions. In addition, risk control should be realized through establishing effective production and management organizational form and effective organization and management system.

Since the 12th Five-Year Plan period, new waterfowl industry organizations have obtained considerable development. The cultivation and growth of new agricultural business entities such as waterfowl industrialized leading enterprises, specialized production cooperatives, large waterfowl breeding and management farmers, play an irreplaceable role in resisting market risks and preventing large fluctuation of waterfowl industry. Firstly, waterfowl breeding cooperatives and industrialized leading enterprises avoid blindness

of numerous farmers flowing to waterfowl market and engaging in production and management through order mode, effectively prevent impact of mode effect on market, and have made outstanding achievements in resisting market risks<sup>[1]</sup>. Secondly, waterfowl industry operates through new business entities such as specialized farmers breeding cooperatives or "leading enterprises + bases + famers", thus some parts in transaction costs of waterfowl products can be implemented inside production and management organizations, to realize internalized product production, which not only reduces unnecessary transaction costs, but also strengthens ability of resisting market risks<sup>[2]</sup>. Thirdly, breeding scale can be constantly expanded through sharing and exchange of internal resources, so as to increase the scale benefit of waterfowl industrial management and improve market negotiation ability of business organizations. Finally, new waterfowl business entities create favorable conditions and provide support for scientific and technological research and development of waterfowl products and extension of waterfowl industry chain. For example, Jilin Tonghua Zhengfang Group independently cultivated Changbai Duck and used it to produce fatty liver products. As a result, in the context of decline of poultry meat price in 2012 – 2013, Zhengfang Group realized considerable profits, which evades market risks to a certain extent and guarantees sustainable development of the enterprise.

In the middle of July, 2015, the national modern agricultural industry technological system waterfowl industry economy research team went deep into Guilin Comprehensive Experiment Station, and carried out a field survey on waterfowl breeding and management situations of Guiliu Poultry Co., Ltd, Liyuan Grain and Oil Industry Co., Ltd, and Shilong Poultry Co., Ltd. These three companies mainly adopt "company + farmers" production and management form, to undertake duck-parental breeding and incubation and sales of commercial baby ducks. Farmers build duck farms, while company provides baby ducks, feeds, and epidemic disease medicines. Farmers take charge of duck-parental breeding and undertake breeding risks. The duck egg purchase between the company and farmers is based on the contract. Farmers must deliver all duck eggs to companies in compliance with the contract, while the companies should purchase duck eggs at the price agreed in the contract regardless of market situations. Baby ducks of the companies should also have predetermined standard price. When the baby duck price at the market is higher than the standard price, the amount exceeding the price should be divided in a ratio of 6:4 for the companies and farmers; when the baby duck price is lower than the standard price, the risk of loss will be assumed completely by the companies. At present, these three companies become stronger and stronger. Especially, Guiliu Poultry Co., Ltd, with development of more than 10 years, have established sincerity and dependence relation with farmers and such relation shows powerful vitality and is not replaceable and reproducible by other companies. Advantages and characteristics of these three companies are mainly manifested in following aspects:

(i) Better realizing the combination of capital advantages and resource advantages. Capital advantages of companies and land and labor resources of farmers are combined together through waterfowl breeding. Capital of companies obtains carrier for profit realization, while resources of farmers obtain catalyst of activation. Especially, labor resources can be fully utilized when they become surplus in slack season of planting. Besides, after capital and resources get input into waterfowl industry, special use of funds greatly promotes enthusiasm of both parties for mutual cooperation and mutual independence, so as to effectively realize reciprocal and win-win goal.

(ii) Reducing breeding risks and management costs. Waterfowl breeding management is in fact a process involving caring of numerous life entities and maintenance of life and breeding process, in which the sense of responsibility of managers is usually more important than their skills and ability. In practice, generally a couple manages duck shed and feeds ducks, such combination will bring the couple with great sense of responsibility. Their labor does not need monitoring, so the management costs can be minimized. In addition, strengthening of the sense of responsibility brings more cautious caring of waterfowl, which is favorable for improvement of sanitation environment and prevention and control of epidemic diseases, so as to effectively reduce breeding risks.

(iii) Favorable for prevention of market risks. The organizational form of "company + farmers" realizes the organic combination of specialization of production and large-scale of industrial development. In the aspect of specialization, companies mainly undertake collection, storage, and transport of duck eggs, incubation and sales of baby ducks, while farmers mainly undertake parental duck breeding, both parties are devoted to every production link, and both specialization level and technology level are relatively high. In the aspect of large scale, on the one hand, special purpose of respective funds lead to high cost of quitting industrial management. Once both parties merge together, they will not easily exit, so the industrial scale is relatively stable. On the other hand, farmers need not worry about uncertainty of product transaction, and they do not undertake market risks, thus the guarantee level of operating benefits is high, they will be devoted to management with incentive of this organizational system, and it will attract more farmers to join in waterfowl industrial management, so the scale expansion is easily. In addition, since companies have certain scale and market share, they will have greater power of discourse and negotiation ability in market competition, product price will be relatively stable and the fluctuation in industrial scale is little.

(iv) Favorable for environmental control and pollution prevention and control. At present, environmental protection in waterfowl breeding has become a key point in survival of waterfowl industry. In the organizational form of "company + farmers", small scale decentralized management greatly reduces the pressure of waterfowl breeding on the environment. Most farmers combine agriculture and animal husbandry. They use their own crops to digest manure pollution of waterfowl, so it is nearly unnecessary to

(i) Better realizing the combination of capital advantages

provide input into environmental protection and pollution control. In this situation, it is feasible to effectively solve the environmental pollution of waterfowl breeding, which not only reduces pressure on environment, but also reduces fertilizer cost input in farmland planting and management. However, large scale centralized breeding implemented in integrated management needs higher costs of pollution control due to heavy environmental load and high environmental protection pressure. Also, companies have to pay higher social costs to deal with environmental disputes with surrounding areas. What's more, due to large scale centralized breeding, the per unit area livestock carrying is too high, breeding density is too high, so the task of preventing epidemic diseases is arduous, and companies have to pay relatively high costs for epidemic disease prevention.

According to this, we introduce "company + farmers" organizational form to waterfowl industry. In the process of realizing modernization of waterfowl industry, we hope waterfowl industry could continue to improve this organizational form, all levels of government and management departments could support such organizational form, so that waterfowl industry can effectively resist business risks and promote healthy and sustainable development of waterfowl industry.

### 3 Correctly recognizing current situations and evolution trends of waterfowl management organizations, and paying close attention to main points of profit sources and technology input of enterprises and farmers in industrial management, to realize mutual reciprocity and mutual benefit of both parties

Since the reform and opening-up, China's waterfowl industrialization level has realized great improvement and the production mode has also been changed. Driven by market force and benefits, waterfowl breeding is gradually changing from traditionally decentralized breeding to modern intensive breeding, and industrial development is changing from single management of farmers and enter-

prises to integrated management mode of "company + farmers" or "company + cooperative + farmers". According to the field survey of waterfowl industry economy research team in Shandong, Hebei, Anhui, and Jiangsu provinces in recent years, the waterfowl breeding mode in most areas of China has been changed into "company + farmers" or "company + cooperative + farmers". In more than 10 provinces surveyed, most farmers sign a contract with local leading enterprises and implement the "company + farmers" integrated production and management mode.

This mode is not only favorable for development of waterfowl industrialization, but also favorable for bringing benefits for both parties. On the one hand, leading enterprises can bring into play their radiation function using their advantages in resources, technology and market, so as to establish primary product production base and ensure product supply. Besides, enterprises implement unified supply of seedlings, feeds, medicines, and technical guidance, which guarantees product quality. On the other hand, enterprises drive farmers to undertake waterfowl production. It ensures sales channel of waterfowl products through contract, which reduces waterfowl breeding risks of farmers, increases farmers' income, solves the problem of agricultural surplus labor, and realizes close connection of enterprises and farmers. Mutual restriction, mutual reciprocity and mutual benefit guarantee product quality and effectively booster stable and sustainable development of waterfowl industry, thus this mode is the development trend and direction of future waterfowl industry<sup>[3]</sup>.

In the field survey in Beijing, Hebei, Anhui, Fujian, Nanjing, Ningbo, Changzhou, and Changchun, the waterfowl economics research team found that main modes adopted in waterfowl breeding and management are "leading enterprise + base + breeding farmers" and "leading enterprise + specialized cooperative + farmers", separately accounting for 37.5% of total enterprises surveyed. The "leading enterprise + breeding farmers" organizational mode accounts for 25%, so the "company + farmers" organizational form is the dominant form at present.

**Table 1 Organizational mode of enterprises surveyed**

Organizational mode	Leading enterprise + base + breeding farmers	Leading enterprise + specialized cooperative + farmers	Leading enterprise + breeding farmers	Integrated and independent management	Others	Total
Number of samples//households	9	9	6	-	-	24
Percentage //%	37.5	37.5	25	-	-	100

Data source: survey data of national modern agricultural industry technological system waterfowl industry economy research team in 2015.

In the cooperation mode of "company + farmers", for the production and management links and income of enterprises and farmers, enterprises generally remain in the front and back ends of the industry chain, namely, enterprises occupy pre-production, breeding, feed processing and research and development, poultry incubation, supply and sales, slaughter, processing, food making, product marketing and market expansion after production, while farmers stay in the middle of the industry chain, namely, the breeding process. The front and back ends occupied by enter-

prises usually have market, technology and natural risks, so the added value and profit are high and the requirement for technology and management level is also high; the middle section occupied by farmers generally has low technology content and small market risk, and there is only breeding risk, thus the operating profit is also very low. Such situation of enterprises (companies and cooperative economic organizations) and farmers in distribution, profit, income and risk of industrial management process takes on the characteristics of smiling curve in economics, as shown in

Fig. 1<sup>[4]</sup>. Enterprises remain in upper part of both ends of the smiling curve, while farmers stay in sunken part of the smiling curve, so enterprises and farmers should have different emphasis points in management and input. Enterprises should increase input in technology research and development and market development, accelerate technological progress, attach great importance to brand construction, and actively exploit market; farmers should actively implement healthy breeding, strive to expand the breeding scale and specialization level, and achieve success through improving the breeding level and increasing the scale benefits<sup>[5]</sup>.

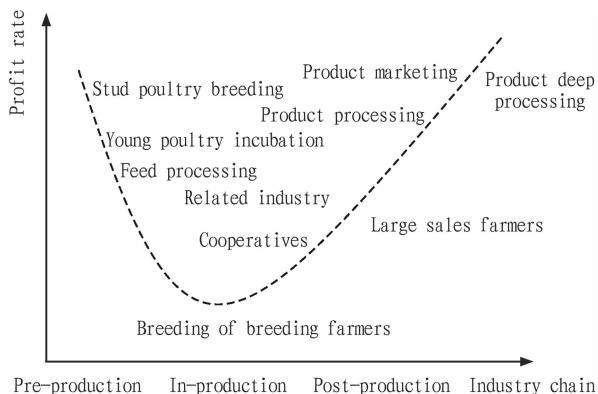


Fig. 1 Smiling curve for profit distribution of the waterfowl breeding industry

#### 4 Properly treating strengths and weaknesses of whole industry chain management of enterprises and actively implementing the third party logistics and asset-light mode

Improvement of waterfowl breeding technology and optimization of breeding mode promotes the waterfowl industry to change from resource-dependent to technology and capital dependent, and the distribution of waterfowl industry becomes centralized in superior production areas. In addition, constant consolidation and improvement of the industry chain also promote the waterfowl industry to extend from single breeding and processing to pre-production and post-production, taking on the trend of combination of in-depth development and broad development, industrial profit constantly increasing, and gradually forming industrial alliances. In the twelfth Five-Year Plan period, the waterfowl industry development is not simply the growth in number, it also drives development of related industries, such as the feed processing, equipment manufacturing, waterfowl product processing, and transport and logistics. In addition, flow and concentration of waterfowl production resource elements promote large-scale development of waterfowl industry. A lot of powerful leading enterprises have appeared in domestic waterfowl industry, such as Shandong Liuhe Group Co., Ltd and Henan Huaying Agriculture Development Co., Ltd have established complete industry chain integrating stud poultry breeding, waterfowl product production, processing, and sales.

Take Henan Huaying Agriculture Development Co., Ltd as an example, this company is a leading enterprise of meat duck

production with large scale, complete supporting facilities, and high quality. It has stud duck farms, hatcheries, standardized commercial duck farms, feed factories, meat duck processing and cold storage, cooked meat processing factories, duck down and processing factories, forming a streamlined system of meat duck production and realizing integrated whole industry chain management. At present, Henan Huaying Agriculture Development Co., Ltd has perfect marketing network. Its meat duck products have been exported to the EU, Japan, South Korea, the United States, Canada, Switzerland, South Africa, Southeast Asia, Middle East, and Eastern Europe. Besides, adapting to diet demands of different countries, Henan Huaying Agriculture Development Co., Ltd exports different duck products, such as duck down clothes. Furthermore, this enterprise uses its abundant capital advantages to cooperate with scientific research institutes, absorb advanced production technologies and experience, improve its internal management level, strengthen the reform of operating system, and reasonably cope with market fluctuation and effectively evade market risks, to realize benign development of both the enterprise and waterfowl industry.

However, according to the survey of the waterfowl industry economy research team on some whole industry chain integrated operating enterprises and "company + farmers" operating organizations, due to increasingly deepening of financial institutional reform, most banks implement lifelong responsibility system for the loan amount, and do not grant new loan if old loans are not paid off. As a result, those enterprises relying on bank loans at the early stage of development will suffer heavy capital load, and their capital chain will break, consequently they will fail to survive. Therefore, enterprises should carefully conduct reform of management system and mechanism, reasonably implement labor division and assets reorganization of the industry chain, to realize specialized industry operation and asset-light mode. Especially for logistics with many connection points of industrial sectors and high input, it is recommended to undertake service outsourcing and implement the third party logistics.

In the third party logistics mode, enterprises entrust part or whole of logistics activities to specialized logistics company through contract or agreement within a certain period. The third party logistics company is a strategic alliance of waterfowl enterprise. Despite neither owning waterfowl products nor participating transaction of waterfowl products, the third party logistics company intends to provide specialized, standardized and information-based logistics services. This mode is helpful for waterfowl enterprises reasonably allocating internal and external resources, so that any party in the industry chain can concentrate its attention on core businesses to strengthen core competitive power. In other words, waterfowl enterprise can reduce logistics input and cost and reduce burden in capital input, while the third party logistics enterprise can ensure stable business, avoid idleness of facilities, so as to obtain scale benefits and reduce costs. Thus, the cooperation be-

**4.3 Attaching importance to caring and improving the quality** Improper development of dark tourism resources may put local residents under some kind of psychological pressure and emotional injury. Both the government and tourist developers should consider psychological perception of local residents, patiently communicate with local residents, help local residents to mentally accept dark tourism and understand benefits of dark tourism, such as driving local economic development and promote employment. Dark tourism activities are subjected to impact of aesthetic seriousness and emotion<sup>[12]</sup>. Traditional famous mountains and rivers, and beautiful pavilions and pagodas have their aesthetic aspects. To a certain extent, even though the service quality is not high, their tourists may be still numerous. By contrast, due to uniqueness of dark tourism resources and products, there should be high quality product design and service, and workers of dark tourism should have higher professional quality and flexible thought, so as to make tourists enjoy the dark tourism.

**4.4 Attaching importance to participation and experience with the aid of high science and technology** In the development of dark tourism, it is recommended to take full advantage of advanced science and technology, build disaster simulation laboratory, and offer tourists with visual and audio impact with the aid of modern media technology such as 3D movie, stereo system, and digital media technology, etc, to make tourists feel the formation process of dark tourism products, to produce the effect of getting the spot in person, attract more tourists to participate and obtain personal experience, and explore value of dark tourism products, and produce alarming and education effect on tourists, and make tourists realize preciousness of life and freedom.

## 5 Conclusions

At home and abroad, the researches about dark tourism are still at

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tween waterfowl enterprise and the third party logistics is a long-term cooperative partnership, win-win and reciprocal relationship.

The third party logistics mode has following advantages: waterfowl enterprise can simplify departments, concentrate its attention on core businesses, reduce investment in fixed assets, reduce operating costs and inventory costs, even realize zero inventory, and accelerate capital turnover; waterfowl enterprise can flexibly apply new technologies, reduce special purpose of assets, increase flexibility of waterfowl enterprise, improve waterfowl industry chain, provide flexible and diversified customer services, and raise the competitive power.

For waterfowl enterprises with limited logistics management ability and resources, to reduce investment in fixed assets, accelerate capital turnover, improve enterprise image, promote logistics service level and efficiency, and lift the competitive power, they can adopt the third party logistics mode, to obtain more

the exploring stage, and theoretical system is still to be improved. However, dark tourism resources are abundant and numerous, so the researches about dark tourism are not consistent with current situations. On the basis of PEST analysis method, we came up with some recommendations for the dark tourism, in the hope of promoting development of dark tourism in China.

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utility value. The famous leading enterprise Shandong Liuhe Group Co. , Ltd is implementing asset-light mode and select the third party logistics mode.

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