Research on the Construction of Qianjiang Crawfish Industry Chain under the Background of Rural Revitalization Strategy

Xiaopeng Chen and Wenya Zhu
Wuhan Donghu University, Wuhan, Hubei, China
486236218@qq.com; 2177363099@qq.com

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Abstract: With the development of the rural revitalization strategy and the deepening of the shrimp-rice symbiosis model, the continuous cropping of shrimp and rice has become an important source of income for Qianjiang farmers from the original income-generating derivative to the Qianjiang crayfish brand of "shrimp-rice symbiosis". Therefore, it has a good reputation of "the world crayfish sees China, the Chinese crayfish sees Hubei, and the Hubei crayfish sees Qianjiang". This paper analyzes the development status of Qianjiang crayfish industry chain, discusses some prominent problems in Qianjiang crayfish industry chain, and puts forward some measures to try to promote the development of Qianjiang crayfish industry chain towards a more perfect direction.

1. Development Status of Qianjiang Crawfish Industry Chain

1.1 Development Status of Qianjiang Crawfish Processing Industry

The development of Hubei crayfish industry began in 2001. After nearly 19 years of development, Qianjiang has built a high-standard rice and shrimp production base of 750,000 mu, with an annual output of 135,000 tons of crayfish cultivation, 450,000 tons of shrimp and rice production, and an average income of more than 5,000 yuan per mu. From the initial paddy field cultivation (continuous cropping of shrimp and rice, continuous cropping of shrimp and rice+co-cropping) to the present integrated services of crayfish deep processing, cold chain logistics, catering flow and festivals, continuous expansion has formed a relatively complete industry. The public brand value of Qianjiang crayfish area has been continuously developed, and the brand value of Qianjiang crayfish has already reached 20.37 billion yuan! Ranked first in the regional brand of lobster in China. Among the crayfish catering brands, Hubei has 14 famous crayfish brands. Compared with the number of crayfish brands in other regions, Hubei has the highest number of brands.

1.2 Current Situation of Crayfish Cultivation in Qianjiang

Qianjiang crayfish has set up 17 aquatic product intermediary service organizations such as Qianjiang aquatic product production and marketing association and Qianjiang crayfish breeding association in accordance with the method of "government guidance, non-governmental organizations and market operation", covering all towns and cities in the city, with more than 12,000 members. The development and growth of intermediary organizations have established ties between enterprises and farmers, formed a new operating mechanism of "sharing risks and interests", established a new mechanism of linking the interests of farming bases with farmers and processing enterprises, promoted the development of contract farming in the city, promoted the efficiency increase of enterprises and the income increase of farmers, and further improved the breeding enthusiasm of farmers. In 2013, "Qianjiang Lobster" was granted a certificate of geographical indication registration by the Ministry of Agriculture. Qianjiang aquatic product processing has formed "Liangren, Chu Yu, Chujianghong, Zhanghuatai" and other processing brands, of which "Liangren" brand trademark has become a well-known trademark in China,"Chu Yu" brand frozen boiled lobster has won the title of Hubei famous brand product, "Chujianghong" lobster has won "Hubei tourism specialty boutique", "Hubei market best-selling brand" and "the 9th..."
China International Agricultural Products Fair Gold Award". At the same time, "Qianjiang Braised Shrimp with Oil" won the title of "Famous Chinese Cuisine", forming "Small Plum", "Li Ronghong Sees the Sky", "Shrimp King" and "Time-honored Brand" and other brands of braised prawn catering, effectively enhancing the image of "Qianjiang crayfish".

1.3 Qianjiang Crayfish Brand Development Status

Since 2004, Qianjiang has been established by the Hubei provincial government as the leading agricultural industry plate base in Hubei province. After nearly 16 years of development, the region's annual processing capacity has reached more than 300,000 tons, with more than 10 aquatic product processing enterprises. Such as Huashan aquatic products, lake aquatic products, etc. Among them, lake aquatic products are "national agricultural products processing demonstration enterprises", ranking 13th among the 25 aquatic products processing and exporting enterprises in the country, and are the largest freshwater aquatic products processing and exporting enterprises in the country. However, Huashan, Lake, Baolong and other enterprises have obtained the right to export aquatic products to foreign markets such as the United States, Europe, Japan and South Korea. The products have passed the HACCP international quality control system certification in the United States and the U.S. Food and Drug Administration and European Community health registration. Huashan and Lake have passed ERC global certification, and their products can enter European and American supermarkets directly.

2. Problems in Qianjiang crayfish industry chain construction

2.1 Low Industrial Concentration

Despite the rapid development of lobster industry, the current situation of crayfish industry shows a variety of development directions. Qianjiang City has actively carried out publicity activities such as the Dragon Shrimp Festival, attracting a large number of consumers from all over the country to come to Qianjiang for sightseeing and consumption, providing a certain impetus for the development of Qianjiang crayfish industry. However, Qianjiang crayfish has been listed as the main development direction from the breeding ground to the management of intermediary organizations to the supply of crayfish on the dining table. In addition, brand building and quality building must be carried out, resulting in too many development directions and too much complexity to achieve the ultimate goal.

2.2 It Is Difficult for High-Quality Brands to Exert Their Own Advantages

"Qianjiang lobster" has been recognized as a pollution-free agricultural product by the Ministry of Agriculture. However, due to people's misunderstanding of the "dirty", "messy" and "poor" growth environment of crayfish, crayfish is difficult to reach the public table and becomes a popular dish. Let the advantage brand has not played its due role. In addition, lobsters from the "Qianjiang Lobster" breeding base are often labeled as high quality, good price and hygienic in the market. However, the phenomenon of mixing fish eyes with pearls is especially serious. The phenomenon of selling lobsters from other places as "Qianjiang Lobster" occurs from time to time. There is no supervision unit in the market and Qianjiang crayfish does not have any identification to prove its source. This situation is not conducive to the public recognition of "Qianjiang lobster" as an advantageous brand.

2.3 Low Value of Industrial Chain

A complete agricultural industry chain can be summarized as many links of agricultural products production, processing, transportation and marketing, which is an organic whole formed by various departments, organizations and affiliated companies before, during and after the production of agricultural products through value chain, information chain, logistics chain and organization chain. In the agricultural industry chain, the value embodied by each chain is different, specifically, the chain of planting and breeding has the lowest value, while the brand after childbirth has the highest value. However, planting and breeding are the foundation of the agricultural industry chain,
without which there will be no value-added activities and results upstream and downstream. In recent years, the crayfish breeding base built in Qianjiang has further standardized the production of crayfish, preparing for the industrialization and branding of the lower reaches of the crayfish industry chain. However, small-scale farmers are still the main force in the production of crayfish in Qianjiang. Due to various reasons such as technical level, innovation ability, application ability and information asymmetry, the quality of agricultural products varies greatly, and the quality of crayfish even does not meet the detection standards, which directly affects the value of the industry chain.

Crayfish has little meat, only the tail of crayfish can be eaten directly. The head and shell of crayfish can only be thrown away as garbage. According to statistics, Hubei Province produces hundreds of thousands of tons of shrimp heads, shrimp shells and other wastes every year, wasting resources and polluting the environment. At the level of crayfish industry development, due to the small scale, strong competitiveness and lack of industrial motivation of leading enterprises, there are currently many leading aquatic products enterprises in the city with an annual output value of over 100 million yuan, but there are few. Most aquatic products enterprises have outdated processing equipment, small scale, relatively backward technology and technology, insufficient stamina, and difficult competitiveness and scale to compete with coastal areas.

2.4 Difficulties in Light and Busy Seasons Restrict the All-Round Development of the Industry

The crayfish industry is affected by factors such as raw material supply and eating habits, and there are obvious light and busy seasons. Lobster industry has the so-called "earned April, flat April, lost April". Lobster practitioners are facing obvious business difficulties in the off season (winter). Business turnover and other business performance plummet, making it difficult to maintain. At the same time, due to poor business performance, considering the salary conditions, job content and other factors, the off-season is also the peak of a large number of employee turnover in lobster industry. In the busy season, with production and sales both rising, there will be a new round of collective shop opening in the crayfish industry. At this time, how to ensure the continuous supply of high-quality raw materials and how to cope with the surging competitive pressure will also pose challenges to the supply chain management and management capabilities of practitioners.

3. Countermeasures to Speed up The Construction of Qianjiang Crayfish Industry Chain

3.1 Strengthen Policy Support and Promote Industrial Chain Development

With the continuous expansion of Qianjiang crayfish market, the problem of crayfish waste disposal cannot be ignored. In view of the processing technology problems of crayfish waste after eating, Qianjiang municipal party Committee and municipal government can further increase their support to Qianjiang lobster industry, support leading enterprises, and all major aquaculture companies jointly invest in the establishment of high-tech companies to study the processing technology problems of crayfish waste, continuously deepen understanding, and find new values from crayfish waste. For example, apart from the edible shrimp tail position, astaxanthin and chitin can be extracted from shrimp shells through the research of shrimp shells. Astaxanthin has antioxidant, antitumor, cancer prevention, immunity enhancement, vision improvement and other effects, and can be used for making health care products, cosmetics and other purposes. Chitin can be used in industry for cloth, clothing, dyes, paper and water treatment. It can be used as insecticide and plant antiviral agent in agriculture. Fish feed is made in the fishing industry. Cosmetics, cosmetics, hair protection, humectants, etc. Contact lenses, artificial skin, sutures, artificial dialysis membranes and artificial blood vessels can be made on medical supplies. For shrimp head parts such as shrimp yellow that are difficult to distinguish or eat when eating, research analysis can be conducted to excavate the available parts so as not to cause secondary waste.

3.2 Increase Technological Innovation and Upgrade Industrial Level

The success of Qianjiang crayfish industry's "shrimp rice model" has made Qianjiang crayfish a
pillar industry in Qianjiang. According to the analysis of Qianjiang's industrial development, Qianjiang's secondary industry is the most developed. Therefore, the leading enterprises involved in lobster processing and rice production should increase their investment, make good use of their own advantages, do a good job in the production of high-quality rice in shrimp township, create green ecological rice, make a unique brand of "shrimp township rice" and make it bigger and stronger. Do a good job of processing lobster by-products, expand marketing space and enhance added value of products. Qianjiang's municipal party Committee and municipal government can improve the industrialization operation mechanism of shrimp and rice mode by actively guiding farmers to cooperate with professional organizations, etc. they can form professional associations with complete functions, standardized operation and division of labor. through associations, they can implement unified technical service guidance, unified supply of means of production, and unified quality pricing standards, thus promoting the large-scale operation of Qianjiang lobster industry. Leading enterprises and intermediary organizations should be guided to unite to form a benefit connection mechanism of "enterprises+associations+farmers" and encourage enterprises' capital and social capital to invest in research, construction and development, so as to achieve the purpose of small scale and unstable output in crayfish cultivation, thus enhancing Qianjiang lobster industry's position in the national and even world freshwater lobster markets.

3.3 Grasp the Key Points, Highlight Advantages and Integrate the Circulation Chain of Crawfish

The circulation chain in the crayfish industry chain integrates and expands food logistics, information flow and circulation services to promote the flow of raw materials at all nodes of the industry chain, thus providing high-quality raw materials for crayfish processing enterprises, reducing asymmetric information barriers and transaction costs. Qianjiang should take advantage of the information advantages of e-commerce industrial parks in counties and districts in the construction of the circulation chain of crayfish, and use the public platform as the carrier of information collection and distribution to provide information services for the main bodies in the upper, middle and lower reaches of crayfish, and at the same time use the modern logistics system to provide support for the circulation of raw materials for the main bodies.

Qianjiang crayfish brand has great value, but its development is not significant due to various developments. Analyzing the current situation of Qianjiang crayfish industry, the most prominent advantage of Qianjiang crayfish industry is the huge brand value. To maintain the brand value, the ultimate goal must be achieved through maintaining the core value of Qianjiang crayfish brand image at any time, continuously improving the quality of Qianjiang crayfish, continuously innovating and managing integrity. The first is to maintain the core value of Qianjiang crayfish brand image. The core value of Qianjiang crayfish brand is the main part of the crayfish industry. It enables consumers to clearly identify and remember Qianjiang crayfish brand and is the main force driving consumers to identify, like and even love a Qianjiang crayfish. According to the changes in the consumption demand levels of the target consumer groups, the change trend of consumers' feelings and beliefs about Qianjiang crayfish can be grasped at any time. To create "crayfish freedom" to make full use of the high price of Qianjiang crayfish, like "cherries freedom" in 2019, to create new topics, to eliminate those feelings that cannot make the core value of Qianjiang crayfish interact with consumers' lifestyle and adapt to changes in the market environment, and to maintain the core value of the brand at any time according to changes in consumers' needs; Secondly, in terms of product quality improvement, the quality of products is the primary factor that constitutes the brand image and also the primary factor that determines the vitality of the brand image. For Qianjiang crayfish industry, responsible for consumers starts with the quality of crayfish. Excellent quality is the key to win customers and occupy the market. Without first-class quality, it is impossible to gain the trust of consumers, not to mention the shaping of brand image. Another is the innovation of Qianjiang crayfish brand. Half of the vitality of the brand image comes from innovation. Innovation makes the brand image of Qianjiang crayfish unique and adds infinite
vitality to the brand life of Qianjiang crayfish, which is an important way to prolong the brand image life of Qianjiang crayfish. Technological innovation is to study new technologies and techniques for similar products, continuously improve the technical content of products, develop new dishes, continuously introduce the old and bring forth the new, attract the attention of consumers, and ensure consumers' awareness of Qianjiang crayfish. Finally, integrity management, a product image with good integrity, will maintain the reputation and loyalty of customers and lay a solid foundation for the sustainable development of the brand. Therefore, honesty should be one of the necessary tasks for enterprises to maintain brand image.

3.4 Strengthen Brand Publicity and Create Lobster Culture

Geographical indications of agricultural products are the local excellent material and cultural wealth formed in long-term agricultural production and people's life. The municipal party Committee and the municipal government should further coordinate the departments of agriculture, quality supervision, commerce and culture, and continuously increase the publicity of Qianjiang lobster geographical indications. the promotion of Qianjiang crayfish brand sharing strategy has made the brand worth 20.37 billion yuan. however, due to market chaos, Qianjiang lobster brand is difficult to embody. In this regard, Qianjiang municipal government and other leaders can refer to Yangcheng lake hairy crabs for brand packaging of Qianjiang crayfish so that Qianjiang crayfish can reflect its own value and be distinguished from other crayfish in the market. In addition, Qianjiang region can take festival culture as its starting point, take the tourism in Hubei province as its turning point, eat green fragrant rice in shrimp villages, stew prawns with Qianjiang oil, drink Qianjiang garden green wine, watch Qianjiang flower drum opera, climb "the first in the world" and watch "the first dam in the plain" as its core, continuously stimulate the excitement of tourism lovers in the south and north of the Yangtze river, and attract travel agencies from inside and outside the province to come to Qianjiang to appreciate the beautiful scenery of "Cao Yu's hometown, water town garden, lobster town, and oil new town" to highlight its unique folk customs and customs, thus creating a deeper Qianjiang lobster cultural heritage. Expand Qianjiang crayfish's unique brand effect, actively work hard to expand marketing space, and strive to enhance the added value of products. In addition, limited funds, technology and other factors should be continuously invested in brand products to strengthen a series of brand products such as Qianjiang crayfish. Strive to develop Qianjiang into China's largest fresh water crayfish processing and export base in a short period of time through brand sharing strategy, and occupy a pivotal position in the world freshwater crayfish product market.

3.5 Hold Special Events to Attract Tourists.

"Qianjiang Braised Shrimp" with remarkable social benefits in the tertiary industry uses freshwater crayfish produced in Qianjiang as raw materials and is made by a unique "braised in oil" cooking method. Its hemp, spicy, fresh and fragrant flavors blend well, with bright color, spicy and delicious taste, thick soup, rich taste layers, flexible shrimp meat imports, strong taste impact, fresh and spicy appetizing, and endless aftertaste. In August 2011, after strict review by experts from provincial and national culinary associations, the China culinary association, China's most authoritative restaurant industry accreditation body, issued a circular (No.10, 2011) granting Qianjiang braised prawn the title of "Chinese famous dish". With the help of superior food materials, exquisite cooking and the unique enthusiasm of Qianjiang people, Qianjiang Braised Shrimp, once launched at the end of last century, has become the most famous representative of Qianjiang's food culture with its unique taste and rich nutrition sweeping Jingchu and floating abroad. Qianjiang city has more than 1000 crayfish restaurants. Among them, "small plum", "Li Rong", "shrimp emperor" and other catering enterprises are the most outstanding representatives. The daily number of tourists can reach tens of thousands. In the streets and alleys of Wuhan, Beijing and Guangzhou, pots of bright red, spicy and delicious "Qianjiang Braised Shrimp" make diners feast their eyes on. In order to support most enterprises to become bigger and stronger brands, with the support of Qianjiang municipal party Committee and municipal government, led by "Li Rong" group, the crayfish catering association was established. This laid a foundation for standardizing industry
standards, guiding orderly competition, building enterprise brands, and making Qianjiang crayfish restaurant brands bigger and stronger. The rise of Qianjiang crayfish restaurant has driven the development of Qianjiang transportation and tourism, bringing considerable economic and social benefits to our city. In recent years, a huge, complete and lobster industry chain has rapidly developed in Qianjiang. From raising lobsters, catching lobsters, selling lobsters, cooking lobsters, processing lobsters, selling processed seasonings, take-out packing boxes, bibs and gloves for eating lobsters, to deep processing of chitin, Qianjiang people enjoy lobster industry, eating lobsters, making lobsters' money and enjoying lobsters' enjoyment in the small lobster industry chain. At present, Qianjiang has more than 60,000 people engaged in crayfish wild foster care, processing and production, catering, transportation, intermediary and other industries. The Qianjiang Braised Shrimp restaurant, represented by "Little Plum", "Red through the Sky", "Time-honored Brand", "Shrimp King" and so on, under the impetus of the gold-lettered signboard of "Chinese Famous Cuisine", has been constantly promoting the innovation. It has now developed more than 10 kinds of flavor crayfish products for different consumer groups, such as marinated shrimp, steamed shrimp, pickled shrimp, roasted shrimp and so on. It receives more than 500,000 tourists from home and abroad who come to taste "Qianjiang Braised Shrimp" every year.

Strive to be a bright city card. In recent years, the total output value of the crayfish industry in Qianjiang City is over 3.5 billion yuan, ranking first in the country for nine consecutive years in terms of foreign exchange earning through exports. In the world, it enjoys the reputation of "the world crayfish sees China, the Chinese crayfish sees Hubei, and the Hubei crayfish sees Qianjiang". Crayfish has become a beautiful business card in Qianjiang City. In 2009, 2010 and 2012, Qianjiang City successfully held three Dragon and Shrimp Festivals respectively. In particular, the second Dragon and Shrimp Festival and the second China Hubei (Qianjiang) Dragon and Shrimp Festival will be held in Qianjiang City from July 7 to 8. At the meeting, the vice chairman of the national Committee of the Chinese people's political consultative conference, aberdeen aberdeen zeiti, gave Qianjiang the plaque "hometown of Chinese crayfish". Chen Xiaohua, Vice Minister of Agriculture, and Chen Baihuai, Vice Chairman of Hubei Provincial Committee of the Chinese People's Political Consultative Conference, awarded Qianjiang the plaque "No.1 City for Processing and Exporting Chinese Crayfish". On May 15, 2011, Qianjiang Dragon Shrimp Festival was named "China's Most Local Characteristic Products Festival" at the 2011 China Brand Festival Awards Ceremony held in Beijing. The success of the Dragon Shrimp Festival has raised Qianjiang City's popularity to an unprecedented level. A "red storm" has rapidly taken hold wherever Qianjiang lobster goes. This year, the fourth China Qianjiang lobster festival will be held again, and the development of Qianjiang lobster industry will soon start a new chapter. At present, Qianjiang municipal government is working on the planning, project establishment and site selection of Qianjiang lobster museum, Qianjiang lobster square and Qianjiang lobster city. The Qianjiang lobster industry in the future will surely realize leapfrog development under the guidance of scientific development planning concepts.

3.6 Unlock the New Technology to Solve the Problem of Qianjiang Crayfish in Light and Busy Seasons

The crayfish industry has the characteristics of insufficient supply in high season and no supply in low season. Spring and summer are usually the seasons when crayfish are on the market. From this time until early autumn is the peak season for crayfish. Winter is the low season for crayfish industry. This is because of the growth characteristics of crayfish. The fastest growth and reproduction temperature of crayfish is between $18^\circ C$ and $29^\circ C$. This temperature range. It is also the best time for vitality, and it has the habit of hibernation with very large food intake, fast growth and fast metabolism. When the temperature is low in winter, crayfish grows slowly and spends winter by reducing its metabolism. Therefore, we should adjust the supply rhythm, change the operation idea, turn the seasonal restriction of crayfish catering and the shortage of supply into business opportunities, develop the crayfish refrigeration technology, and refrigerate the crayfish in late October and early November by simulating the hibernation
environment of the crayfish. The crayfish did not freeze to death but "hibernate" in advance. Before the sale, raise the temperature and promote its recovery. After a few days in the greenhouse pond, the fresh crayfish can "climb" onto the winter table. It is also possible to solve the problem of "wintering difficulty" in crayfish catering.

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