

A Research on the Development of Chinese Traditional Medicine: The Ejiao Case

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The Ejiao industry cluster in Dong E County of Shandong Province is a provincial industrial cluster in Shandong Province. Ejiao industry involves two industries: traditional Chinese medicine and health care products. “Qi and blood” is the fundamental field of Ejiao. As the first nourishing brand in China, the derivative products of Dong’e Ejiao need to expand the market category. Donkey industry is the foundation of traditional Chinese medicine health industry in Dong E. As the foundation of donkey industry, animal husbandry has the characteristics of relatively low added value. Therefore, the core of donkey industry is the traditional Chinese medicine health industry.

Keywords: traditional Chinese medicine, Ejiao industry, donkey industry

Introduction

China’s traditional Chinese medicine health industry is China’s most historical essence and national cultural characteristics, the most innovative basis and original intellectual property basis, the most world market demand for unique characteristics of the industry. Since the new era, the development of China’s traditional Chinese medicine health industry has entered a new stage, and the state has issued a series of policy documents to promote the revitalization and development of traditional Chinese medicine and health industry.

In March 2016, The General Office of the State Council issued the Guiding Opinions on Promoting the Healthy Development of the Pharmaceutical Industry, which proposed to promote the scale, intensification, and park of the pharmaceutical industry, and create a number of industrial clusters with standardized management, environmental friendliness, outstanding characteristics, and high industrial correlation (State Council Office, 2016). There are obvious regional differences in the development of traditional Chinese medicine health industry in China. Guangdong, Henan, Sichuan, Hebei, Shaanxi, Shandong, and other places proposed to build strong provinces of traditional Chinese medicine. With the development of traditional Chinese medicine health industry, park has gradually become a development trend. China has formed several pharmaceutical industrial parks, such as Taizhou Pharmaceutical Park, Zhongguancun Pharmaceutical Park, Tianjin Binhai New Area, Shanghai Zhangjiang High-Tech Development Zone, and Guangzhou Pharmaceutical Industrial Park. At

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present, the traditional Chinese medicine health industrial park mainly includes the expanded traditional Chinese medicine health industrial park established by the enterprise with its own abundant funds, such as the “Modern traditional Chinese Medicine Industrial park” established by Shenwei Pharmaceutical, supporting Chinese medicine industrial parks established by enterprises according to their own and government policies, such as the modern Chinese medicine industrial park established by Zhongxin Pharmaceutical in Tianjin with the core of Chinese medicine research and development, extraction, and preparation. The resource-based Chinese medicine industrial park is established through the advantages of Chinese medicinal materials resources (Pei, Fang, & Wu, 2014).

From the distribution point of view: China’s traditional Chinese medicine health industrial park is mainly concentrated in the Bohai Sea, the Yangtze River Delta, the Pearl River Delta, with the development of high-tech areas and continuous development, among which the scientific research and innovation strong “Zhangjiang Medicine Valley”, resource-dependent “Liaoning biomedical Industry base”, manufacturing “Taizhou Pharmaceutical high-tech Zone”, and other parks are more influential (Hao, 2003). The development model of Chinese medicine health industrial park in China can be summarized as the whole industrial chain model represented by Jilin Tonghua Medical City, Sichuan, Yunnan, and Guizhou planting base model and Chinese herbal medicine trading center (Guizhou Institute of Science and Technology Development Strategy, 2017).

Product Status of Shandong Province Ejiao Industry

Shandong Province mainly produces Chinese patent medicines made from Ejiao, honeysuckle, and ginkgo. With the economic and social development and the implementation of the “Healthy China” strategy, the public’s health awareness has been continuously enhanced, and the medical care and health industry in Shandong Province has shown a rapid development trend. There are two pharmaceutical Ejiao (OTC) production enterprises in Dong E County (Dong’e Ejiao Co., LTD., Shandong Dong’e Guojiao Tang Ejiao Pharmaceutical Co., LTD.), 23 Ejiao health food production enterprises, 100 Ejiao ordinary food production enterprises, more than 550 Ejiao product management enterprises, and more than 12,000 employees in the production and management enterprises. In 2016, the Ejiao industry achieved the main business income of 10.058 billion yuan, profit and tax of 3.54 billion yuan, and profit of 2.783 billion yuan, an increase of 11.58%, 11.07%, and 13.73% respectively. Dong’e Ejiao industrial cluster was included in the sixth batch of provincial industrial clusters (Zhang, 2016).

Dong’e Ejiao is the core brand enterprise and the most beautiful famous brand in Dong E County. Its main products are Ejiao block and compound Ejiao paste. Dong’e Ejiao was established in 1952 and listed in 1996. The company has 5,000 employees, total assets of 12.7 billion, market value of 41 billion, brand value of 37.1 billion yuan, seven times won the national quality award, the only national quality award in the pharmaceutical and food industry. It is now affiliated to China Resources Group, a central enterprise. National Colloidal Chinese Medicine Engineering Technology Research Center, is the standard setter of Ejiao industry. Dong’e Ejiao is the national traditional Chinese medicine culture propaganda and education base, the first batch of national traditional Chinese medicine health tourism demonstration base, the first batch of national industrial tourism innovation units, the national intangible cultural heritage production and protection demonstration base, the national AAAA level scenic spot, the first batch of national industrial tourism demonstration sites.

From the perspective of industry concentration, at present, there are many domestic enterprises producing pharmaceutical and health products, and the industry concentration is high, and will continue to be concentrated. Although there are many production enterprises, the market share of well-known enterprises has steadily increased, and less than 20% of the varieties occupy more than 50% of the market share. In the Ejiao subdivision industry, in recent years, the new version of GMP and the new Ejiao industry standards have further improved the industry concentration, eliminating many small brand Ejiao factories. As the competition for raw materials acquisition intensities and prices continues to rise, only Ejiao brands that can obtain raw materials and have the ability to make profits can survive, and most brands that are positioned in the low-end market but still raise prices have been eliminated.

From the perspective of industry competition, the high profit rate and high development speed of the Ejiao industry have attracted many capital to compete for the Ejiao market. Pharmaceutical companies such as Tongren Tang, Taiji Group, and Foci have also entered the Ejiao market. They pursue profits in the Ejiao market, but they cannot always stick to it like Dong'e Ejiao, which makes the market competition fiercer.

Ejiao industry involves two industries: Chinese medicine and health care products. As a part of Chinese traditional culture, TCM has a unique theoretical system. Because the side effects of traditional Chinese medicine are small, there are natural health care properties, and many traditional Chinese medicine has the same medical tradition of medicine and food, so people who aim at health care are easy to develop the habit of taking medicine regularly, and correspondingly their consumer groups have a certain stickiness. In comparison, traditional Chinese medicine health care products are more popular in the field of health, its unique traditional culture also makes it different from chemical drugs competitive advantage, Chinese enterprises which do traditional Chinese medicine health care products have unique resources. From the perspective of the development speed of the industry, in recent years, the growth rate of China's health drug consumption expenditure has been stable at 15%-30%, and the average growth rate of the food health product industry planned by the National Development and Reform Commission from 2012 to 2015 has also reached 20%. At the same time, with the consumption upgrading brought by the rapid growth of disposable income of Chinese residents, the aging population, and the growth of demand for female beauty and health care, and the policy support of the state for traditional Chinese medicine, nutrition and health food manufacturing industry has kept the development speed of the industry in which Dong'e Ejiao is located with strong growth.

The foundation of Ejiao health industry lies in the stable operation of donkey industry, which is the foundation of Dong'e Ejiao—a traditional Chinese medicine health industry. The donkey industry, as the basic animal husbandry, has the characteristics of relatively low added value of the industry. Therefore, the traditional Chinese medicine and health industry, namely the Ejiao industry, is the core of the donkey industry to ultimately enhance the value.

“Qi and blood” is the fundamental field of Ejiao. As the first tonic brand in China, the derivative products of Dong'e Ejiao need to expand the market category in addition to Ejiao cake and compound Ejiao pulp (Zhao & Pan, 1994).

Dong E County Ejiao derivatives have a certain scale, such as Ejiao cake food, which has a certain influence in the country. However, some products with the potential to become stars, such as Ajing water, lack market appeal, and have not been able to break through the county, city boundaries to become a star brand above the provincial level (Relevant Departments of Dong E County, 2018).

Traditional Chinese Medicine Health Industrial Park Policy Design in Dong E County

Industrial Economy

The implementation of variety strategy, relying on large varieties to cultivate large brands and large enterprises, focused on supporting 10 advantageous large-scale products, forming two-three annual sales of more than 50 million yuan, three-five annual sales of more than 10 million yuan, five-seven annual sales of more than five million Ejiao large varieties. Form three-five enterprises and enterprise groups with annual sales revenue of about 50 million yuan. Form a product supply chain of five characteristic scale Ejiao authentic medicinal materials, and have a certain market competitiveness, strive for two-four products to enter the traditional Chinese medicine market as therapeutic drugs, and continue to build more than two characteristic Ejiao brands that have begun to take shape in China.

Talent Team

Create a high-level, high-quality, stable Ejiao innovative talent team and medical research team; establish multi-disciplinary, cross-field, industry-university-research, and domestic and overseas cooperative innovation team structure and talent mechanism, take effective measures to increase the total number of Ejiao talents, and improve the quality and quantity structure of Ejiao talents (Kong, 2012).

Soft Power of Ejiao

Integrate and gather the strength of relevant departments, and establish a Ejiao cultural communication (public service) platform as soon as possible, which includes five functions: cultural collation of Ejiao industry, communication and exchange window of Ejiao culture inside and outside the district, education and training base of Ejiao culture, brand establishment and cultural marketing management of leading enterprises, and promotion of Ejiao cultural industry. During the 11th Five-Year Plan period, relying on the platform, a number of Ejiao culture documents with practical communication value were collated, three-five cultural communication windows outside the region including Beijing and Shanghai were established, and a base of Ejiao culture education, training, tourism, service, and exhibition could be established within the region, outside the region and internationally, relying on universities, medicine, leading enterprises, and planting bases. Focus on cultivating 10 competitive Ejiao brands.

Basic Research

Inherit and develop the health theory of Ejiao, increase the excavation and collation of ancient medical books; complete a number of common terms of Ejiao standardization research; basic establishment of the basic Ejiao diagnosis and treatment and processing of medicinal materials, pharmaceutical preparations, and other technical standards system; modern biomedical technology means are used to carry out basic theoretical research on Ejiao, establish experimental disease models, complete the construction of GLP platform, and carry out animal experimental research on pharmacological effects. Form a number of national leading Ejiao drugs, in addition, continue to insist on improving the quality standards of existing products, strengthen the integrated innovation capacity.

Advantage Areas

Support pharmaceutical Ejiao enterprises to select more than 10 effective prescriptions or therapies in the advantageous fields of blood diseases, prevention, and treatment of sub-health conditions, gynecological diseases, cardio-cerebrovascular diseases, rehabilitation and health care, conduct new drug development and

therapeutic research, and launch a number of innovative varieties of Ejiao drugs with advanced and reliable technology, high standard categories, independent intellectual property rights, and broad market prospects. Complete a number of public technology research and the development of key industrial common technologies, and make the innovation speed of Ejiao drugs reach the forefront of traditional Chinese medicine drugs in the country by 2030.

Technological Innovation

By 2030, new drug development and process technology improvement of Ejiao will be carried out, 10 varieties will be industrialized, and about five new Chinese medicine approvals will be obtained. With secondary development of existing Ejiao products, strive to develop more than 10 ancient prescription experience prescriptions with accurate curative effect and a long history within five-ten years, and apply for one-two national invention patents. Make active exploratory research on the reconstruction or restoration of Ejiao for external use in areas that are now neglected or forgotten.

Continue to Develop Functional Food

Make full use of the genuine green advantages of Dong E medicinal resources, research, and development of functional food. In terms of the current characteristics and overall planning of Dong'e Ejiao Industrial Park, more efforts should be made to improve the overall industrial environment, especially the policy environment, and innovation environment, increase special public investment, attract talents, and rely on the existing enterprise innovation institutions and other aspects of the scientific and technological innovation system rudiments. Integrate the existing TCM health industry resources (production, study, research, technology, talent, investment, management, etc.) in the region, and carefully build a scientific and technological innovation platform (public service platform) that can support the multi-disciplinary, cross-field, industry-university-research, and domestic and overseas cooperative innovation of the TCM health industry. Jointly form the power engine for the acceleration and upgrading of the Ejiao industry, promote the close integration of the production, research, and trade of Ejiao, and achieve the sustainable development of the Ejiao industry. In Dong E County, Shandong Province, the industrial chain structure of pharmaceutical Ejiao is relatively advanced, but the industrial chain of food Ejiao is incomplete, mismatched, and scattered, belonging to a small industry lacking core competitiveness, and even does not have an industrial concept in a strict sense. The core industrial chain of Ejiao is in a typical sense. Or the main link of the industry should include five main sub-production links, such as Ejiao agriculture and animal husbandry, Ejiao industry, Ejiao commerce, Ejiao health service industry, and Ejiao research and development (knowledge industry). After further development, the industrial chain structure of Ejiao mainly includes modern Ejiao raw material industry (including donkey industry), modern Ejiao advanced manufacturing industry, modern Ejiao logistics industry, modern Ejiao health service industry (including health education, health management, and health medical industry), and modern Ejiao knowledge industry (including cultural communication and Ejiao information network industry).

Training of Ejiao Cultural Talents

Create a mechanism and social environment for cultivating excellent cultural talents of Ejiao at all levels and with multiple systems, encourage all public institutions, civil organizations, and enterprises to invest in the research, promotion, and industrialization of Ejiao culture, and provide realistic soil for the development of talents.

Prospects and Suggestions

Dong E TCM Health Industry Demonstration Park should integrate all the main resources related to Ejiao, and gradually form a large-scale and centralized TCM health industry center with obvious advantages, mainly integrating key resources such as innovation, medical treatment, manufacturing, trade, service, communication, training, and logistics of Ejiao. Establish an innovation platform, establish large-scale variety innovation chain and other landmark projects, establish a business center, an international training center for Ejiao special medical treatment, combine physical park and virtual park, provide services and guidance for the entire Ejiao industry, provide basic support for technology and management, and gradually develop and transition to the industrial intensive area of Ejiao.

The innovative development of Dong E TCM health industry and the construction of industrial park are planned to be organized and implemented in four stages according to the principle of “top-level planning, overall resources, focusing on key points, and step-by-step implementation”.

Project Construction Preparatory Period (About One Year)

The main task of this stage is to “unify understanding, top-level planning, lay a good foundation, and apply for the base”, the main symbol is to complete the application to the province to establish the first modern pharmaceutical industrial base.

Increase the members of the joint meeting of the implementation of the TCM health industry in the county government, and strengthen the leadership and coordination force. Further enrich manpower, increase and improve functions. According to this study, detailed industrial construction implementation plans, project organization implementation plans, and project management measures are formulated.

Construction Period (Two-Three Years)

The main task of this stage is to “create a platform, integrate resources, innovate the system, and develop intensively”. The main sign is to complete the integration of Ejiao public resources, and initially establish a public service platform and an industrial policy environment.

Increase and concentrate special funds, set up special guidance funds for Ejiao industry and industrial development, and the annual public funds can be centrally used and are not less than one million yuan.

Based on Dong E Modern Think Tank, establish an expert advisory organization, determine the operation mechanism of the base project, determine the specific organization responsible for promoting the planning, and substantively operate the Ejiao industry association.

Plan and build an international authoritative Ejiao network platform, establish a professional market for Ejiao talents and technologies, and establish an important integrated and efficient tool platform in the aspects of base display, operation, and management; do a good job in relevant industrial policy research, introduce relevant legislation and industrial policies, and accelerate the creation of a competitive industrial policy soft environment.

Pool public resources to establish a science and technology innovation platform for Ejiao, start from key areas such as key talents, hardware, software, and key projects, and integrate resources comprehensively and systematically according to the TCM health industry plan, gather talents for Ejiao cause and lay the foundation for the intensive development of Ejiao industry.

According to the construction content of the industrial plan and the main construction projects, formulate project guidelines, solicit and screen key projects, establish a fully open competitive screening mechanism, and focus on the establishment of basic projects and the main framework.

Start the Ejiao medical infrastructure construction plan, form a systematic Ejiao medical network as soon as possible, carry out the construction of Ejiao famous hospitals, shops, doctors, and specialties, and launch major research projects on difficult diseases in this technology.

The establishment of an evaluation system for Ejiao and the construction of an international chemical, medical, and nutrition system is also a top priority in the resource integration stage. Start the Ejiao communication project, increase the international dissemination of Ejiao culture and technology, completely occupy the East Asian market, and gradually penetrate and spread to the core areas of traditional Chinese medicine in the world, so as to provide the necessary foundation for the establishment of large-scale industry. First, further strengthen the construction of Ejiao industry associations and chambers of commerce, strengthen the protection of intellectual property rights, rely on the industrial park platform, and focus on the backbone enterprises, establish an enterprise technological innovation system and achievement transformation system.

Incubation Period (About Three Years)

The main task of this stage is to “realize the main innovation and intensive development of the industry”. The main symbol is to build a well-known domestic Chinese medicine modern science and technology industry (Ejiao) base, and realize the transformation of the nature of Ejiao from the current cause to the industrialization, and the second is the transformation of the mechanism from the government to the market.

Build a complete Ejiao marketing network, and initially form a health product distribution center based on Ejiao.

Establish well-known Ejiao medical centers in China, establish Ejiao medical network, and provide more distinctive advantages and competitive Ejiao medical services.

To study, demonstrate, and establish major projects for the TCM health industry in East Afghanistan, apply to relevant national and provincial departments for the establishment of projects or the establishment of synchronous and coordinated guiding policy inputs and commitments, win greater support from all aspects, and fully implement the construction of the regional group system for the TCM health industry.

Accelerate the construction of modern Ejiao processing industry industrial system, cultivate and expand enterprise clusters; form an Ejiao innovation industry cluster area centered on industrial park.

Growth Period (Three-Five Years)

The main task of this stage is to “accumulate energy, form climate, integrate advantages, and achieve leapfrog”. The main sign is the initial formation of Ejiao enterprise clusters and large-scale characteristic varieties gathering, laying the foundation for the development of Ejiao industrial dense area.

On the basis of early development, further increase investment and technological innovation; continue to expand market demand, and increase the international influence and radiation of traditional Chinese medicine based on Ejiao. The flexible and diverse measures have attracted capital investment from well-known enterprises at home and abroad represented by China Resources Biomedicine, maintained significant benefits of enterprise clusters within the TCM health industry base, driven the rapid growth of related industries, and gradually formed the first domestic international base of modern science and technology industry of Ejiao with outstanding cultural and natural resources advantages.

Carefully build domestic well-known Ejiao characteristic industrial clusters, mainly including (research and development) cultural center, resource center, science and technology center, medical service center, science and technology intermediary service center, technology and product distribution center.

Build a TCM health service industry on the basis of the steady development of the Ejiao industry; integrate science, education, culture, health, tourism, and other related industries, and build an international health industry integrating culture, tourism, leisure and entertainment, health care and medical treatment, education and training.

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