# Research on the investment status and optimization countermeasures of Chinese herbal medicine industry in the Chinese market

# Zhenjie Cui\*

Faculty of Health, Fujian Medical University, Fujian Province, 350000, China \*Corresponding author: cfydzh@stu.fjmu.edu.cn

Keywords: Investment status, Countermeasures, Chinese, Herbal medicine industry

**Abstract:** As part of the industry with strong profitability and high profit, the Chinese herbal medicine industry needs to pay attention to its market development and investment status. This paper expounds on the basic situation of the Chinese herbal medicine industry, including the existing advantageous environment and obvious problems. It clarifies the positive effect of research investment on the Chinese herbal medicine industry and economy. Using the method of literature review and comparative analysis, from the source of investment, the analysis of the basic status quo, the political, economic, and other factors that affect the investment, it analyses the problems existing in the investment in the Chinese herbal medicine industry. It proposes targeted optimization strategies based on the existing advantages. From the government level, the industry environment to the enterprise level, it is refined layer by layer. Through research and analysis, it provides a theoretical basis for later measures to improve the investment market of the Chinese herbal medicine industry, promote the international development of the Chinese herbal medicine industry and even the Chinese medicine industry, improve and consolidate the medical security system.

# **1. Introduction**

# 1.1 Research background

As a domestic industry with solid profitability in China, the traditional Chinese medicine industry has high product profit margins. The Chinese medicine industry is divided into Chinese herbal medicine and Chinese patent medicine. Chinese herbal medication mainly uses natural medicinal materials to cure diseases and regulate physical conditions. In addition to therapeutic drugs, Chinese herbal medicine can also develop health products, food, cosmetics, etc. Chinese herbal medicine has the advantages of high efficiency, non-toxicity, and fewer side effects. Therefore, investment in the Chinese herbal medicine industry is significant to the medical industry.

At the same time, the economic benefits brought by the Chinese herbal medicine industry should not be underestimated. For example, Chinese herbal medicines are added to cosmetics in cosmeceutical products. People's pursuit of cosmeceuticals can greatly promote consumption and economic development. As China's intangible cultural heritage, Chinese herbal medicine is inevitably affected by the "intangible heritage boom", so investment has increased in recent years. The government's emphasis on the Chinese herbal medicine industry has also led to increased investment in the Chinese herbal medicine industry. Chinese herbal medicine has gradually become synonymous with "health and safety" in people's hearts. Promoting the development of the Chinese herbal medicine industry, investment in the Chinese herbal medicine industry and Chinese herbal medicine derivatives industry will inevitably be affected. Because Chinese herbal medicine has good efficacy and diverse functions and has high profits, coupled with the increase in international economic exchanges under globalization, it attracts international investment in China's Chinese herbal medicine industry. For example, the United States invests in Taiwan's Chinese herbal medicine industry.

Affected by various factors, especially high profits, the investment market in the Chinese herbal medicine industry is complex. Lack of investment supervision may cause chaos in the domestic investment market, and international investment in China may cause patent problems for Chinese

herbal medicines. In addition, a large amount of capital has flowed into the Chinese herbal medicine industry, which has changed the competitive landscape. Under free-market competition, national policies and regulations need to be improved.

Therefore, research on the investment status of the Chinese herbal medicine industry and optimization countermeasures will positively affect the development of the Chinese herbal medicine industry and, at the same time, have a positive effect on economic growth.

# **1.2 Literature review**

Wang said Chinese pharmaceutical companies have the problems of small scale, relatively poor production conditions, relatively backward technology, and "big but not strong" [1]. There is a shortage of funds in the Chinese herbal medicine industry. At the same time, weak profitability may reduce the willingness to invest. Ye said that excessive "Chinese herbal medicine" marketing might negatively affect market consumption. The Chinese herbal medicine industry has benefited from the support of industry policies [2]. Therefore, the Chinese herbal medicine industry should not overmarket. It needs to form a virtuous circle. U.S. investment in the Chinese herbal medicine industry in Taiwan is conducive to researching and developing new medicines and related Chinese herbal medicine industries [3]. Therefore, our country should actively introduce international investment, and at the same time, it is necessary to strengthen investment supervision.

## 1.3 Research gap

There are relatively comprehensive researches on the Chinese medicine industry in China. Still, since the Chinese medicine industry is divided into Chinese herbal medicines and Chinese patent medicines, most research aims to analyse Chinese patent medicines. There is relatively little research on Chinese herbal medicine. At the same time, the research on Chinese herbal medicine is more inclined to research the role of Chinese herbal medicine and the development of the Chinese herbal medicine industry. Very few studies on the investment status of the Chinese herbal medicine industry. The optimization countermeasures for the investment situation also need to be improved.

#### **1.4 Research framework**

The author will mainly start with the Chinese herbal medicine industry's investment status and optimization strategies in the Chinese market. In the analysis of investment status, the author will mainly show the investment status of the Chinese herbal medicine industry from three aspects. The first is the source of investment, involving domestic investment, international investment in China, investment companies, etc. The second is the analysis of the investment market in the Chinese herbal medicine industry, involving investment income, investment return rate, policy impact, investment willingness, and other aspects. Finally, analyse the problems of investment. On the other hand, based on the analysis of investment status and existing problems, the author proposes optimized countermeasures to enrich investment sources, regulate the investment market. The government has played a positive role in the development of Chinese medicine industry and economy through the optimization of countermeasures.

#### 2. Method

## 2.1 Literature research

The literature research method is based on a certain research purpose, through investigating literature to obtain information to understand and grasp the research problem fully and correctly.

Through literature research, we can understand the investment history and current situation of the Chinese herbal medicine industry, form a more comprehensive view through various materials, and propose optimization countermeasures. Mainly search the investment status of the Chinese herbal medicine industry to understand the primary sources of investment—domestic and international investment by investment companies in the Chinese herbal medicine industry. Secondly, analyse the investment market, analyse the impact of policies on investment, and the influencing factors of

investment willingness, collect data and literature on investment returns, investment returns, and form a more comprehensive understanding. In collecting literature, we understand the investment problems in the Chinese herbal medicine industry and propose targeted optimization strategies for these problems. At the same time, the author can find relevant measures from the literature to understand whether the implemented countermeasures are effective, whether the author can learn from existing measures, or avoid problems found in implementing existing measures. Existing measures can be modified and reused, or new measures can be proposed. The literature collection mainly focuses on investment in the Chinese herbal medicine industry.

## 2.2 Comparative method

The comparative method mainly compares two or more similar things and analyses specific things through the differences. Due to the high profits of the Chinese medicine industry, the "intangible heritage boom", the attention of the government, and the influence of economic globalization, the Chinese medicine industry has invested hugely. In recent years, a large amount of social capital has flowed into the Chinese medicine industry. The Chinese medicine industry is divided into the Chinese herbal medicine industry and the Chinese patent medicine industry. Most research is aimed at the proprietary Chinese medicine industry, so the author collects the literature and data on the investment status of the herbal medicine industry and compares it with the investment in the Chinese patent medicine industry's investment and better proposes optimization countermeasures. Although both Chinese herbal medicines and Chinese patent medicines have shown an upward trend, Chinese and patent medicines' specific directions and investment growth are different. In addition, analysing the investment income of Chinese patent medicines may explain the investment willingness of Chinese herbal medicines from another perspective.

# 3. Result

# 3.1 Source of investment

The source of investment is mainly analysed from three aspects.

# **3.1.1 Domestic investment**

With the continuous development of TCM treatment and the increasing acceptance of TCM treatment, the popularity of TCM treatment has become higher, and it has been widely used to treat relatively common diseases. The use of Chinese herbal medicine has increased. In recent years, the Chinese government has increased investment in public TCM hospitals and played an active role.

# 3.1.2 International investment in China

Due to the positive effect of Chinese herbal medicine in the treatment and the low price compared with Western medicine. In addition, economic exchanges and cultural exchanges have increased under globalization, and the spread of Chinese medicine culture has increased international investment in China's Chinese herbal medicine industry, such as American biotechnology companies. (Arena Phamaceu-ticals) invests Chinese herbal medicine in Taiwan, provides technical support and enhances the company's potential for new drug development [3]. However, there are restrictive factors, such as Chinese herbal medicine patents, clinical trials, and other issues.

# 3.1.3 Investment company

The Chinese herbal medicine industry has great potential, and high profits have led to the inflow of a large amount of social capital. Attract investment companies to invest in the Chinese herbal medicine industry, such as companies specializing in Chinese herbal medicine. Then it can determine whether to invest based on factors such as the company's profitability, return on investment, company potential, and Chinese herbal medicine market potential. Investment by investment companies in the Chinese herbal medicine industry is beneficial to developing the Chinese herbal medicine industry.

## **3.2 Investment Market Analysis**

## 3.2.1 Analysis of current investment status:

Since the late 1990s, the Chinese medicine market has developed rapidly, and the output value has continued to increase. By 2015, the total output value of the Chinese medicine industry accounted for 28.55% of the total output value of the national pharmaceutical industry, becoming a new growth point for China's economy. Great way to increase income. With the expansion of the Chinese herbal medicine market and the important role, the investment market in the Chinese herbal medicine industry has great potential. The investment has generally shown an upward trend in recent years [4].

At present, government financial investment plays an important role in developing traditional Chinese medicine and Chinese herbal medicine. International investment in China exists, but the investment is limited due to patents in the Chinese herbal medicine industry, lack of clinical tests, and chaotic investment markets. Supervision needs to be strengthened urgently. Due to the strong profitability of the Chinese herbal medicine industry and the large inflow of social capital due to high profits, the government needs to play a role in macro-control.

There are many problems in the investment of Chinese herbal medicine industry, such as international restrictions, lack of testing, lack of talent, insufficient policy, public choice of Chinese and western medicine, comparison between Chinese patent medicine investment and Chinese herbal medicine investment, lack of brand, the influence of technical barriers, etc. The above problems need to be improved urgently. The policy support and related measures taken by the Chinese government, Chinese herbal medicine enterprises, and other relevant parties, such as the development of Chinese herbal medicine-related projects, have played a positive role in the existing investment situation, conducive to expanding investment sources and improving problems.

# **3.2.2 Political Factors**

The Chinese herbal medicine industry is closely related to Chinese medicine. The government's emphasis on Chinese medicine treatment and the Chinese herbal medicine industry comes from the emphasis on the inheritance of traditional treatment and the important role of Chinese medicine and Chinese herbal medicine in treatment. The government has been taking positive attitudes and measures to enhance the competitive advantages of the Chinese medicine industry and Chinese herbal medicine industry and make systematic plans for the development of Chinese medicine. Under the "One Belt, One Road" strategy, China and countries along the route carry out exchanges and cooperation in many fields. The "Traditional Chinese Medicine and Health Development Plan (2015-2020)" shows the important position of traditional Chinese medicine development in the "One Belt, One Road" strategy. The government has issued relevant policies to ensure the development of the traditional Chinese medicine industry in many aspects, such as the "Traditional Chinese Medicine Law (Draft)", "Outline of the Strategic Plan for the Development of Traditional Chinese Medicine (2016-2030)" [4].

## **3.2.3 Economic factors**

Return on investment: economic benefits brought by investment, return on investment, and other economic factors affect investment in the Chinese herbal medicine industry. Return on investment (ROI) = (annual profit/total investment) \* 100%, through the calculation, can reflect the return of capital invested in the Chinese herbal medicine industry and affect investment decisions. Too low ROI will lead to a sluggish investment market in the Chinese herbal medicine industry. Without it, social capital flows to other industries, which is not conducive to developing the Chinese herbal medicine industry. Excessive return on investment means high risk, high competition, and market chaos caused by a large influx of social capital, which will affect the investment situation of the Chinese herbal medicine industry.

Profitability: Profitability is the ability of enterprises to obtain profits, which is an effective tool to evaluate enterprises, predict the future, and be attractive to investors. Su said most of the traditional Chinese medicine enterprises have strong profitability, and the average gross profit margin of the industry has increased [5]. Company size, financial leverage, liquidity, and solvency will impact

measuring asset returns, that is, affecting profitability. Corporate profitability plays a major role in investment decisions [6].

## 3.2.4 Other factors

Investment willingness: Based on many factors, the market share of Chinese herbal medicine has increased, and globalization has brought positive effects. However, people still doubt Chinese herbal medicine's efficacy and scientific background. The lack of experimental testing affects international acceptance and thus affects international investment in China.

At the same time, some Chinese people believe in the efficacy of Chinese herbal medicine but are more inclined to choose Western medicine and Western medicine in the treatment stage, which will affect the investment in Chinese herbal medicine.

Incumbents, investors, and start-ups focus on digital technologies, artificial intelligence, and machines to improve healthcare systems' efficiency, affordability, and quality. The consumer health market is saturated, so Chinese herbal medicine could be a new investment point.

Chinese patent medicine uses Chinese medicinal materials as raw materials. Under the guidance of traditional Chinese medicine theory, it is processed into a certain dosage form of traditional Chinese medicine products according to the prescribed prescription and preparation process. Its production is standardized, the process is standardized, and the sales are standardized. The willingness to invest in Chinese patent medicine may be higher than Chinese herbal medicine.

Negative events: The counterfeiting incidents in the Chinese herbal medicine industry, the poisonous capsule incident in 2012, the uneven product quality, etc., affect the public's trust in Chinese herbal medicine, affecting the investment situation.

## **3.3 Existing advantages**

Research shows that the revenue of Chinese herbal medicine will increase year on year in 2021, and the Chinese herbal medicine market will be in line with the annual growth rate and scale expansion in the next five years, and there will be a good investment environment.

With the support of national policies and the advantages of the Belt and Road Initiative, the development of traditional Chinese medicine is regarded as a strategic requirement, and relevant policies and regulations are proposed. The government provides incentives for local investment in industries that preserve tradition and provide jobs.

Consumer demand for Chinese herbal medicine has rebounded. According to the relationship between supply and demand, the supply of Chinese herbal medicine will increase. Strengthening the supply-side structural reform of Chinese herbal medicine is conducive to increased investment.

Chinese herbal medicine represents traditional Chinese medical culture, and the positive effect of the environment of "intangible cultural heritage boom" affects the investment market.

As a synonym for "health and safety", Chinese herbal medicine has few side effects and low prices. Investing in the Chinese herbal medicine industry aligns with the public's pursuit of health and economic benefits.

Compared with Chinese patent medicines, which require prescribed prescriptions and preparation processes, and the dosage forms are limited, Chinese herbal medicines can be adjusted according to the disease and different physical states of different people, which is more flexible.

The Chinese herbal medicine market is gradually modernized, and trade channels are increasing, such as supermarkets, convenience stores, e-commerce, etc. The development of traditional trade stability (pharmacy halls, village doctors) and diversified investment channels.

# 3.4 Problem

(1) Standard issues in the Chinese herbal medicine industry: There are large international differences in national standards for Chinese herbal medicine safety, intellectual property rights issues, policy restrictions on investment registration, and lack of policies to regulate international investment, which affect international investment in China [7].

(2) The Chinese herbal medicine industry has technical problems, insufficient original innovation, insufficient investment in research and development, and imperfect market and industrial mechanisms. The patent application rate of traditional Chinese medicine has declined, and there are "abnormal patents", and the quality of patents needs to be improved [8].

(3) The concept of TCM lacks experimental testing, and there is a lag in international acceptance and recognition. For example, Europe only issued a directive in 2011 to unify the definition of Chinese herbal medicine in the European market [9]. There is an urgent need to evaluate TCM and clinical trials.

(4) The production, sales, pricing, and use of Chinese herbal medicines are regulated by different government agencies, and there are cases of artificial cultivation. Due to the complexity of Chinese herbal medicines, quality control needs to be strengthened. At the same time, there is a lack of uniform quality standards for Chinese herbal medicines, making it difficult to measure their medicinal and economic value [10].

(5) Chinese herbal medicine is cheaper and less profitable compared with Western medicine. Nearly three-quarters of Chinese medicines are priced below their actual cost and rely on government subsidies [11]. According to the survey, 37% of the outpatient drug revenue of TCM hospitals comes from western medicine, 35% comes from patent medicines, and 28% comes from herbal medicines. Chinese herbal medicines account for 22% of TCM hospitals' drug revenue and 8.1% of the total revenue. Investment is risky [12].

(6) Most Chinese believe in traditional Chinese medicine, but they prefer Western medicine for treatment. Some people choose traditional Chinese medicine because western medicine is difficult to cure. This shows that the degree of recognition of TCM still needs to be deepened.

(7) "The World Health Organization's 2014-2023 Traditional Medicine Strategy" was released. Developed countries are interested in Chinese medicine and Chinese herbal medicine, but China's situation is not as good as that of foreign countries, affecting domestic investment.

(8) Elimination of additional profits from western medicines is implemented in public hospitals, which means that public hospitals make profits from traditional medicines. In contrast, private hospitals are not restricted. They are likely to choose higher-profit Western medicines, which is unfair to the Chinese herbal medicine investment market [13].

(9) Compared with the systematic production and sales of Western and proprietary Chinese medicines, Chinese herbal medicines lack brand effect. The herbal medicines have various combinations, so the market is relatively fragmented, affecting people's choices and investments.

(10) There are many kinds of Chinese herbal medicines, and the combination of different Chinese herbal medicines is complicated. The initial investment is relatively large, and the investment's payback period involving the herbal medicines' growth cycle may belong.

(11) The profitability of Chinese herbal medicine companies needs to be improved, and the upstream and downstream industries need to cooperate further. The direct sales of herbal medicines lack product added value, the profits are low, which will affect the return on investment and investment willingness.

(12) There is a shortage of Chinese medicine talents with knowledge and skills of Chinese herbal medicine.

(13) The modernization and westernization of traditional Chinese medicine have negatively influenced public opinion.

## 4. Discussion

#### 4.1 Government side

(1) The government has issued a unified standard for relevant Chinese herbal medicine quality standards, and at the same time, strengthened quality supervision and punishment measures and set up relevant institutions. Equipment, processing technology, etc., also need to develop relevant standards and specifications. Drawing on the standards of international organizations and trying to form

consistent domestic and international standards is conducive to increasing domestic and international investment opportunities.

(2) Relying on the demand for low-cost Chinese herbal medicines in the "Belt and Road" and developing economies along the route encourage them to invest in China.

(3) The government plays the role of macro-control, regulates the investment market with laws and policies, and supervises investment funds' whereabouts. Especially international investment in China, sets up regulatory agencies, improves the chaotic situation in the investment market, and promotes the standardized development of the Chinese herbal medicine investment market.

(4) Give full play to the active role of government financial investment (GFI) and adjust GFI policies to maximize input-output efficiency [14].

(5) Drawing on European experience, set up a herbal product committee to deal with herbal medicine authorization and registration issues, and manage international investment in China [15].

(6) With the help of environmental advantages such as the "Belt and Road Initiative", "Intangible Cultural Heritage Upsurge", and inheritance of traditional culture, strengthen the publicity of Chinese medicine culture, cultivate Chinese medicine talents, and combat public opinion.

## 4.2 Industry environment

(1) Limit the additional profits of western medicines and promote fair investment opportunities in Chinese and western medicines.

(2) Increase investment in research and development of Chinese herbal medicine industry, encourage patent development, promote clinical testing of Chinese herbal medicine, and increase international acceptance

(3). Study the formula of Traditional Chinese medicine by referring to the western medicine method, combining the formula of traditional Chinese medicine, and deeply analysing the new ingredients produced in the formula. This measure is beneficial to the development of the TCM industry, improving market dispersion, and attracting investment [16].

(4) In order to drive the development of the downstream industry, Chinese herbal medicine can be used as health care products and innovative Chinese herbal medicine products to enter the market. Through cooperation with other industries, the development of beverages, cosmeceuticals, and nutritional products containing Chinese herbal medicines can increase the added value of products. In addition, it is conducive to attracting investment by making full use of modern advantages, online expansion, and offline retail stores, expand investment channels, and increasing profit sources.

(5) In line with modernization and consumption trends, new packaging, promotion of health concepts, e-commerce models, and use of big data platforms

#### **4.3 Enterprise level**

(1) Take measures to improve the ROI of the enterprise, such as identifying improvement plans, forming a consensus investment plan, conducting ROI analysis, improving competitiveness, and controlling costs to maximize profits. At the same time, enterprises need to undertake corresponding social responsibilities.

(2) Studies have shown a positive relationship between corporate credit rating and profitability, and Chinese herbal medicine companies need to strengthen the brand-building to attract investment.

(3) Adopting new marketing and brand promotion methods, vertical integration. Improve the overall supply chain, supervise the chain to brand loyalty management, establish strategic partnerships with multinational companies, and provide new investment opportunities.

# 5. Conclusion

#### 5.1 Investment status summary

In recent years, the development of the Chinese herbal medicine industry has shown an upward trend. Higher profits have prompted the gradual diversification of investment sources. A large amount of social capital has flowed into the Chinese herbal medicine industry to promote the development of

the Chinese herbal medicine industry. According to the analysis, many factors affect investment. Relying on the favourable market environment and policies to support development, the Chinese herbal medicine industry takes advantage of its traditional culture, small side effects, economic benefits and conforms to the health requirements of the times to improve the investment market. However, at the same time, the TCM industry faces a lack of standardization and clinical trials, a lack of supervision, and weak patent technology. At the same time, in the face of fierce market competition with the western medicine market, the Chinese patent medicine industry, infrastructure, and other industrial chains and human resources need to be improved. Existing problems are exposed and need to be solved urgently. This paper proposes a targeted optimization strategy, relies on advantages, improves problems, and is committed to forming a competitive Chinese herbal medicine brand that conforms to modernization.

# **5.2 Commercial values**

This paper analyses the investment status of the Chinese herbal medicine industry, which is conducive to forming a more in-depth understanding, providing a theoretical basis for follow-up measures. And at the same time proposing optimization strategies to help improve the investment market of the Chinese herbal medicine industry, attract investment, and promote the Chinese herbal medicine industry, while consolidating the development of the Chinese medicine, it plays a positive role in improving medical insurance.

# 5.3 Limitations

Using secondary data, there is a lack of direct data, and future research needs to increase primary data collection. In addition, due to the close relationship between the Chinese medicine industry, many studies are based on the overall research of Chinese medicine, and the individual research data of Chinese herbal medicine is relatively lacking. Future research should pay attention to the data analysis and arrangement of the Chinese herbal medicine industry.

# References

[1] Wang Xuesong; Mo Yingning. Analysis of the current situation and countermeasures of Chinese herbal medicines exported to the EU market [J]. Chinese Medicine Herald, 2018, 24(15): 15-17+21

[2] Ye Lixin. The development and investment of Chinese herbal medicine is a mystery [J]. New Economy Guide, 2010, (10): 58-60

[3] American biotech companies invest in the development of Chinese herbal medicine in Taiwan [J]. China Journal of Traditional Chinese Medicine, 2001, (03): 88.

[4] Juncai Xu, Zhijie Xia, Traditional Chinese Medicine (TCM) - Has the boom and globalization of contemporary commerce really reaffirmed its medical efficacy and safety, Received 15 May 2019, Revised 26 June 2019, Accepted 27 June 2019, Available online 3 July 2019.

[5] Su Yuwei. Research on the investment value of traditional Chinese medicine enterprises [J]. Times Finance, 2013, (15): 261-262

[6] NGUYEN, Thi Ngoc Lan, and Van Cong NGUYEN. "The Determinants of Profitability in Listed Enterprises: A Study from Vietnamese Stock Exchange." The Journal of Asian Finance, Economics and Business, vol. 7, no. 1, Korea Distribution Science Association, Jan. 2020, pp. 47–58, doi:10.13106/JAFEB.2020.VOL7.NO1.47.

[7] Lin, A.X., Chan, G., Hu, Y. et al. Internationalization of traditional Chinese medicine: current international market, internationalization challenges and prospective suggestions. Chin Med 13, 9 (2018).

[8] Christelle Anquez-Traxler, The legal and regulatory framework of herbal medicinal products in the Europe an Union: a focus on the traditional herbal medicines category, Drug Inf J, 45 (01) (2011), pp. 15-23

[9] Cao, Y. D., Gong, R. J., Chen, N., & Liu, W. (2019). Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica, 44(6), 1284–1288.

[10] Xu, Judy, and Yue Yang. "Traditional Chinese medicine in the Chinese health care system." Health policy (Amsterdam, Netherlands) vol. 90,2-3 (2009): 133-9. doi:10.1016/j.healthpol.2008.09.003

[11] Major roles of western medicine in TCM hospitals. Finance and Economics Daily; February 2007

[12] Liu YL. Decreasing TCM clinical utilization. Health Newspaper; December 2006

[13] Xuefeng Shi, Dawei Zhu, Stephen Nicholas, Baolin Hong, Xiaowei Man, Ping He, "Is Traditional Chinese Medicine "Mainstream" in China? Trends in Traditional Chinese Medicine Health Resources and Their Utilization in Traditional Chinese Medicine Hospitals from 2004 to 2016", Evidence-Based Complementary and Alternative Medicine, vol. 2020, Article ID 9313491, 8 pages, 2020

[14] Ren, W., Fu, X., Tarimo, C. S., Kasanga, M., Wang, Y., & Wu, J. (2021). The scale and structure of government financial investment in traditional medicine based on optimal efficiency: evidence from public traditional Chinese medicine hospitals (PTHs) of Henan province, China. BMC health services research, 21(1), 182.

[15] Anquez-Traxler, C. The Legal and Regulatory Framework of Herbal Medicinal Products in the European Union: A Focus on the Traditional Herbal Medicines Category. Ther Innov Regul Sci 45, 15–23 (2011).

[16] Zhang M, Chang Y. On the research and development mode of the combination of Chinese and Western pharmacy. Lishizhen Med Materia Med Res. 2007;18(3):737–8.