

# Research on the Dilemma Faced by Proprietary Chinese Medicine from the Perspective of Market Economy and the Optimization Method

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## ABSTRACT

With the improvement of the status of TCM in China's medical system and the promotion of the application of proprietary Chinese medicines in national life, especially TCM has played an excellent role in the rescue and treatment of this new crown pneumonia epidemic, which has caught the attention of China as well as the world. However, it is undeniable that at present, proprietary Chinese medicines still face the constraints of ambiguous clinical positioning, uncertain economic value, and unregulated market regulation. Therefore, this paper examines the dilemmas faced by proprietary Chinese medicines from a market economy perspective and offers optimization measures. The authors argue that the current market for proprietary Chinese medicines faces two problems: unregulated economic evaluation and an imperfect market for the sale of proprietary Chinese medicines, and also argue that optimization in two aspects of market regulation and implementation of proprietary Chinese medicine outcomes will effectively promote the development of the proprietary Chinese medicine market. This paper comprehensively searches domestic and international literature databases such as CNKI, and Springer, collects domestic and international literature, policies, norms, and expert opinions related to proprietary Chinese medicines, and uses a combination of literature analysis and data analysis to complete this study.

**Keywords:** *Proprietary Chinese Medicine, Proprietary Chinese Medicine Development Chinese Medicine Evaluation Model, Market Regulation, Market Economy*

## 1. INTRODUCTION

Proprietary Chinese medicines (PCMs) are commercialized Chinese medicinal preparations approved by the State Drug Administration, incorporating the concept of individualized evidence-based treatment in Chinese medicine, and are one of the most promising contemporary medicines. While in the related research field, there are more articles related to the efficacy of proprietary Chinese medicines related to the therapeutic effects of specific drugs from a clinical perspective, there are relatively few articles related to the market and market development of proprietary Chinese medicines. However, the authors argue that the effective application and development of pharmaceuticals should not be limited only to the development of drugs and related therapeutic effects, but the market for proprietary Chinese medicines also plays a large role. Thus, for the better application of high-quality proprietary Chinese

medicines, the authors examine the current dilemmas faced by proprietary Chinese medicines and propose corresponding optimization methods from a market economy perspective, taking into account relevant economic knowledge. In the presentation, the Institute for Clinical and Economic Review, ICER's Evidence Rating Matrix (ERM), a tool for clinical value evaluation of drugs, is introduced in the economic assessment of proprietary Chinese medicines. In the analysis of the sales market of proprietary Chinese medicines, relevant data models were established, in which the data were obtained from the Ministry of Industry and Information Technology of the People's Republic of China and the National Bureau of Statistics.

## 2. ANALYSIS

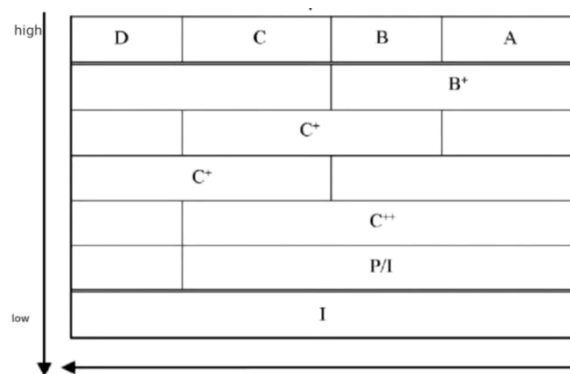
### 2.1. The Two Outstanding Dilemmas Faced by Proprietary Chinese Medicines

#### 2.1.1 Lack of Uniform Standard Assessment of the Economics

In October 2017, the General Office of the State Council issued "Several Opinions on Further Reforming and Improving Drug Production, Circulation, and Use Policies," which states, "Strictly review and approve the listing of drugs. Drawing on advanced international experience, exploring the categorization of Chinese medicine (classical prescriptions) and other review and approval..." In February 2020, the CPC Central Committee and the State Council issued opinions on deepening the reform of the medical insurance system, which proposed to improve the dynamic adjustment mechanism of the medical insurance catalog, the criteria for drugs included in the medical insurance catalog are "high clinical value and excellent economic evaluation"[6]. It is not difficult to see the demand for the evaluation of the value of proprietary Chinese medicines from the national documents on proprietary Chinese medicines in recent years. The level of the economics of a drug will largely influence the value of the drug. The lower the total cost or average daily treatment cost of similar proprietary Chinese medicines with similar clinical value and efficacy, the easier they are to be accepted by patients. And the idea and method of constructing an evaluation and grading tool of drug value that meets the characteristics of proprietary Chinese medicines themselves are explored to quantify it and provide support for the value of proprietary Chinese medicines and third-party payment, etc. The

next step is to reflect on the economic evaluation of proprietary Chinese medicines by introducing a specific model.

Institute for Clinical and Economic Review, ICER developed the Evidence Rating Matrix (ERM)[1], a drug clinical value evaluation tool, in 2015. The net health benefit (NHB) and confidence level provided by the evidence are jointly judged by clinical efficacy evaluation, reflecting the overall balance of benefits and risks, as shown in Figure 1[1][3], this tool is mainly used for new drug treatments and diverse healthcare interventions, using a transparent methodology to calculate a value-price benchmark for each new drug, and a whole analysis of the comparative clinical effectiveness, cost-effectiveness, and impact on potential costs of each therapy to help decision-makers choose a reasonable option based on the benefits the drug brings to patients [2].



**Figure1** The schematic diagram of evidence rating matrix

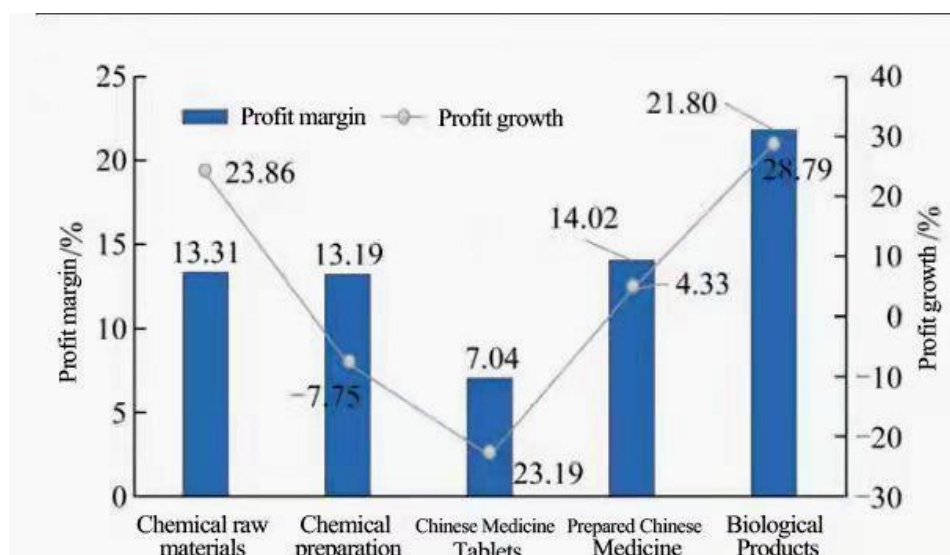
### 2.2 Sales Market Needs to be Optimized for Development

industry	Main business income	Person yuan year-on-year growth /%	proportion /%
Chemical pharmaceutical raw material manufacturing	3945	4.38	14.11
chemical pharmaceutical preparation manufacturing	8357	- 1.19	29.89
yinbian processing	1782	- 8.64	6.37
Chinese patent medicine production	4414	- 3.02	15.79
biological products manufacturing	2796	16.50	10.00
pharmaceutical industry overall	27 960	7.03	100.00

**Figure 2** Main business income of major sub-industries of the pharmaceutical industry in 2020

industry	Total profit year-on-year increase ratio /% amount yuan length /%			Margins / %
Chemical pharmaceutical raw material manufacturing	525	23.86	12.73	13.31
Chemical pharmaceutical preparation manufacturing	1102	- 7.75	26.74	13.19
Slices processing	125	- 23.19	3.04	7.04
Chinese patent medicine production	619	4.33	15.01	14.02
Manufacturing of biological products	610	28.79	14.78	21.80
Pharmaceutical industry as a whole	4123	19.34	100.00	14.75

**Figure 3** The main areas of the pharmaceutical industry profits in 2020



**Figure 4** Total profit of major sub-industries of the pharmaceutical industry in 2020

In the past 20 years, the scale of the proprietary Chinese medicine industry has surged and achieved a long and stable development. However, the development in recent years has gradually become slower, and the development of the proprietary Chinese medicine industry has taken a sharp turn for the worse, with a sharp decline in the growth rate of main revenue and profit, especially since 2020, the proprietary Chinese medicine industry has experienced significant negative growth and is facing a serious situation.

From Figure 2 it is seen that the proprietary Chinese medicine with biological products manufacturing and chemical-pharmaceutical preparation manufacturing year-on-year growth is on a downward trend, compared to 2019, the main business income grew -3.02% year-on-year. From Figure 3 it is seen that the main sub-industries have positive year-on-year percentage growth in total profit, but less year-on-year growth

compared to several other positive growth industries. From Figure 4 see the profit situation profit margin of 14.12% in the main areas of the pharmaceutical industry in 2020, and the profit growth rate of 4.33% in the main areas of the pharmaceutical industry[4].

### 3. MEASURES TO OPTIMIZE THE PROPRIETARY CHINESE MEDICINE MARKET

#### 3.1 Effective Market Regulation of the Market

##### 3.1.1. Brief Overview

At present, the regulation of Chinese herbal medicines in China has problems such as chaotic circulation market and low entry threshold, difficult supervision of cultivation and sales of retail households, insufficient professionalism of supervision team, and

single way of supervision, while the use of market economy can provide effective management of the proprietary Chinese medicine market.

### 3.1.2. Specific Measures

Take a combination of centralized rectification and daily supervision, while increasing supervision and punishment, and resolutely banning those enterprises that do not have the qualifications for the production and operation of proprietary Chinese medicines, and further regulate the distribution channels of proprietary Chinese medicines. Strictly enforce the rules and regulations on the production, processing and packaging of pCms, and effectively control the source of production of pCms[5].

Strengthen the supervision and management of proprietary Chinese medicine production, processing and packaging enterprises, to strictly follow the relevant packaging management of proprietary Chinese medicines, in the packaging of proprietary Chinese medicines shall indicate the name, origin, date, production (business) units, with the quality mark, etc.[5], the failure to meet the requirements of the drugs are not allowed to be marketed. To strengthen the supervision of proprietary Chinese medicine business units, strictly prohibit the use of proprietary Chinese medicine without packaging or packaging requirements.

With the continuous development of the Internet and the gradual rise of various online trading platforms, the Chinese herbal medicine market has been gradually expanded from offline to the online market, which undoubtedly adds difficulty to the regulation of the Chinese herbal medicine market. For the online market, single administrative supervision can no longer fully maintain the normal and orderly development of the Chinese herbal medicine market, and the authors suggest the implementation of an innovative supervision model combining administrative supervision, self-regulation, and mass supervision.

## 3.2. Use of Market Economy to Promote the Results of Proprietary Chinese Medicine

### 3.2.1. Brief Overview

The current booming market economy has injected vitality and vigor into the proprietary Chinese medicine industry, and the quality, quantity and efficiency of proprietary Chinese medicines are developing rapidly. Based on the unique therapeutic and health care effects of proprietary Chinese medicines and the basic background that people's life is improving and focusing on health care, the market potential of proprietary Chinese medicines is increasing, which creates good opportunities for proprietary Chinese medicine products to further develop domestic and international markets.

### 3.2.2. Specific Measures

In the new situation of market economy, how to get benefit and development from quality, this issue should be put into the first place, because it is directly related to the improvement of social and economic benefits[5][7]. Therefore, effectively improving the quality of proprietary Chinese medicine is a necessary prerequisite for the development of proprietary Chinese medicine.

The sense of competition in the market economy can improve the vitality of the market, and the gradual reform is also gradually innovating the market. Various industries are also gradually waking up to the fact that they should be in the market and should do away with dependence and accept challenges. The proprietary Chinese medicine industry should also join the ranks as soon as possible, closely linked to the economic market, and establish its positive image and strong position in the competition in the pharmaceutical market as soon as possible so that people can break the stereotype of proprietary Chinese medicine[7].

## 4. CONCLUSION

The perspective of this paper is to look at the current problems and improvement measures of proprietary Chinese medicines from the perspective of the market-economy. On the one hand, the current dilemma of proprietary Chinese medicines is studied from the perspective of two problems, namely, the irregularity of economic assessment and the imperfection of the sales market of proprietary Chinese medicines. However, it is obvious that a systematic clinical value evaluation index is the most important and sound evaluation system for the development of proprietary Chinese medicines in China. For proprietary Chinese medicines, it becomes relatively more difficult to evaluate their systematic drug value because of their multi-component, multi-target and multi-outcome characteristics, focusing on the dynamic changes of evidence and pathological stage evolution, and focusing on long-term efficacy. As for the sales market, this paper systematically analyzed the relevant data in recent years through data analysis, and came up with the trend and direction of sales and profit changes in recent years. However, there is the problem of not correcting the relevant bias caused by inflation and epidemic factors. At the same time, the specific modules that need to be improved are not studied in detail due to the lack of relevant data. On the other hand, in terms of relevant measures, this paper proposes two aspects of optimizing market regulation and promoting the results of proprietary Chinese medicine, and analyzes them in more detail from several perspectives. However, because it is limited to the field of market economy, it does not link it to the optimization measures in other areas of the market as a whole, such as using relevant media to improve the

stereotypical image of Chinese medicine among the public and increasing the relevant support investment in the development and research of proprietary Chinese medicine, and other relevant measures are very effective measures to promote proprietary Chinese medicine. And the effective combination of each field is likely to bring out the multiplier effect of  $1+1>2$ .

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