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Review Article



Discussion on the Choice of Technology Innovation Strategy of Chinese Pharmaceutical Enterprises

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Abstract: Over the past few years, China's extensive domestic power has been continually enhanced, and the economy, science, and technology are constantly evolving. Thus, people's living standards have also been significantly improved. In contemporary culture, individuals are increasingly demanding high-quality, safe lives and, on the one side, all regular necessities such as life-related, drug safety is a must attach huge significance. However, the state's investment in medical care is not particularly large due to the late start of China's medical industry. As a result, the pharmaceutical equipment of pharmaceutical companies in China still has many problems and there are potential hidden dangers in drug safety. The pharmaceutical companies in China are innovating on this basis. In technology, research and discussion, many problems appear and related solutions are proposed.

Keywords: Pharmaceutical companies, Technological

innovation, Strategic measures

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1 Introduction

Currently, although the pharmaceutical safety work in China's pharmaceutical industry has evolved quickly, the drug innovation technology is very weak, which has become a barrier to the growth of China's pharmaceutical industry. At the same time, China still has a big gap in the pharmaceutical manufacturing technology of the world. How can we reduce the gap between Chinese pharmaceutical companies and the world? We believe that in order to ensure China's

pharmaceutical industry, we must improve the level of innovation in Chinese pharmaceutical companies and reduce the distance from the world. Technically stable and healthy development^[1]. The technology of the world is constantly advancing, and the trend of globalization is becoming increasingly apparent. Only by enhancing the competitiveness and learning of China in the pharmaceutical manufacturing sector can China's pharmaceutical production innovation technique be comprehensively enhanced, and China will quickly understand an ideal from manufacturing to development.

2 The reality of technological innovation in domestic pharmaceutical companies

2.1 The company pursues the economy unilaterally and lacks self-help competitiveness.

The level of pharmaceutical companies in China today is uneven. While there are basically many kinds of drugs, manufacturing equipment, and excellent brands, many of them are expressed in formalism. There is no real high-tech content, and there are only drugs. There is no other innovation in traditional pharmaceutical techniques. In general, in order to survive better, to pursue illegal interests, there is a cycle of repeated R&D, theft of pharmaceutical machinery, theft of peer pharmaceutical technology, and even more casual production. If China still does not make creative adjustments to this poor condition, the pharmaceutical industry will regress rapidly and stagnate significantly.

2.2 Insufficient investment in technological innovation of enterprises.

For China's pharmaceutical manufacturing sector, the extreme shortage of resources and inadequate investment restrict the growth opportunities of innovation in pharmaceutical technology^[2]. Because most pharmaceutical companies will primarily use bonds and loans to finance when underfunded in order to momentarily relieve the issue of business operations created by inadequate resources. Although these channels are fast, they lack legal protection. There are excellent dangers that create low loan levels for pharmaceutical companies. This is one of the major factors that directly hinders pharmaceutical companies' innovation in China.

3 Analysis of the influencing factors of technological innovation efficiency

The concentration of pharmaceutical companies in China will be more conducive to companies' research and development. Many firms believe that the traditional monopoly market cannot adapt to the present social development, and the competitive ex ante market can generate many study opportunities for pharmaceutical companies and more motivate enterprise innovation capacity^[3]. Therefore, many studies have shown that a competitive ex ante market is an attempt to foster the development of modern pharmaceutical companies.

3.1 Industry M&A competition factors

Industry M&A competition has evident trends in pharmaceutical businesses in latest years, but some businesses have distinct opinions on this and think that M&A activity is highly negative^[4]. However, after evaluation, most of the reasons for M&A are to save expenses, but it is ascribed to some variables that have a short-term adverse effect on the company's goods and R&D line difficulties: (1) The direct impact of M&A will cancel R&D institutions. (2) Research projects will be reduced or revoked. (3) After the merger, the scientists lost due to the dispute between many distinct cultural structures, and the R&D process could not be continued. Therefore, mergers and acquisitions have an adverse effect on innovation from the short-term growth scenario, particularly for small pharmaceutical businesses. Each company's final market value is less than US\$ 100 million, and investment in R&D is considerably lowered. Basically, after the merger of big pharmaceutical companies, no one will have an enormous effect on R&D investment within one year. Moreover, for pharmaceutical companies, lowering R&D investment and revoking study projects are also inevitable outcomes in short-term mergers and

acquisitions. The four elements represent the level of innovation capacity from the view of long-term mergers and acquisitions: (1) the revocation of research projects that are repetitive or not the main core, focusing on research priorities and directions; (2) increasing the number of small innovative pharmaceutical technology companies. Cooperation opportunities, adjust the future planning and development direction of products to meet the changing standards of social environment; (3) Improve the structure of products, make them more rational, increase cash flow and investment in R&D; (4) Based on the innovative competitiveness brought by the merger and acquisition of pharmaceutical companies, it effectively improves the possibility of winning the company's patents and the competitiveness of the listed products. Although the current M&A activity and innovative research cannot do a hundred percent positive affirmation, but from the entire pharmaceutical industry, the development trend of mergers and acquisitions have been in the biotechnology and pharmaceutical companies new small safe I reflected, so that the M&A long-term development of innovation will gradually emerge.

3.2 Institutional environmental factors

Institutional environmental variables are significant variables that directly influence whether innovation in pharmaceutical technology can enhance effectiveness. It involves the government's industrial policy and protection of intellectual property. At the same time, market failures due to various factors also provide a theoretical basis for corporate government support. However, due to the present non-competitive and innovative method of development in pharmaceutical technology, there will be some enormous dangers and instability that will result in companies not being able to fully innovate. According to the statistics, it has an important beneficial effect on corporate expenditure through innovative government policy assistance for the sector^[5]. In addition, the intellectual property system is different from other systems in that it has specific property rights arrangements in the outcome of innovation in pharmaceutical technology. It also efficiently decreases the field of technological innovation by enabling the correct holders of technological inventions to enjoy exclusive privileges over a period of time. At the same moment, the outcome of instability also allows cost control in the transaction method to achieve the most lucrative business gains, maximize the value of innovative technology, boost the

technological innovation operations of the company, and enhance development effectiveness. Simultaneously, foreign-funded activities also have different meanings for independent innovation: (1) Under the continuous backlog, the competitiveness of foreign-funded enterprises stimulates internal independent innovation activities and enhances independent innovation production for potential spillover effects of foreign investment. The effectiveness of production has a driving significance.(2) Because in the business setting, foreign capital enters the domestic-funded industry, producing an effect, efficiently decreasing the domestic-funded sector's manufacturing scale and manufacturing revenues, thereby decreasing corporate expenditure and growing business development enthusiasm.

4 Measures for pharmaceutical companies to carry out technological innovation

4.1 Independent innovation is the core of the competitiveness of pharmaceutical companies

Independent innovation generally implies that the overall company, after constant hard work and research and exploration in manufacturing technology, relies on its own attempts to encourage innovation operations, break through technical problems, understand technology marketing and receive business earnings on the market. This achieves the company's innovative objectives. In China, pharmaceutical companies are still based on the Academy of Sciences in terms of autonomous innovation technology, and enterprises' autonomous innovation capacity has become the core competence of competitiveness on the business sector. Moreover, the difficulty of self-innovation is gradually growing, affecting the country's future financial advantages. Instead of being a "small-minded" which is restricted to pharmaceutical companies, the awareness of autonomous development should be encourage to be acknowledge on the nation In pharmaceutical companies, the core technology of pharmaceuticals lies in independent innovation, and the core technology required for independent innovation comes from the transcendence of technology within the enterprise. The vital characteristic of autonomous innovation lies in the reality that companies need to create and depend on their own strength to complete independent research and development operations. Simultaneously, this is the vital distinction between autonomous innovation strategy and other innovation policies^[6]. As the pharmaceutical industry's competitiveness is becoming increasingly tense, the environment is also changing. In addition to exercising its own features and benefits, pharmaceutical companies also need to decrease the threat of innovation and growth, enhance economic efficiency, and strongly boost tiny businesses and biotechnology. Cooperation possibilities for the company and the most significant strategic concept of autonomous development is to keep the key competitiveness.

Let's take chemical medicine as an instance. Chemical drugs have very powerful protection from patents. Their structure is the key competitiveness of patented pharmaceutical companies. They derive from the value of their market from the intellectual property rights generated. The ultimate objective, for instance, is the ultimate discovery of drug targets, the mixture of chemicals, high-throughput compound screening, the auxiliary computer design in medicine, and the structural optimization of compounds in drugs, all around the purchase of pharmaceutical value compounds and patent protection. Such innovation is therefore a basic innovation, its investment is enormous, its risk is high, and its rate of failure is exceptionally high. It is therefore a thorough reflection of the general financial stage and innovative study capacities of a country. In these years, China's extensive financial level and R&D innovation have entered a phase of sophisticated autonomous innovation, and the capacity for autonomous innovation is very powerful. However, from the state's view, its autonomous innovation capacity and study outcomes can only be achieved through independent research and development and innovation^[7].

4.2 Increase the government's basic investment in science and technology and strengthen the construction of innovation support platform

The government needs to boost investment and understand the project's essential points for the China pharmaceutical companies' technical study projects. In specific, when the government assumes associated duties, it must boost investment in pharmaceutical and pharmaceutical technical studies. China must not only set up fresh drug research and development resources belonging to its own nation, but also strictly handle its science and guarantee the use of resources. However, how to use the fund can be divided into two aspects: (1) In the development and application of new drugs researched in China, the level of scientific research

in molecular, quantum biology, and life science principles has reached the level of developed countries. Thus, these level will effectively serving China's pharmaceutical technology. In the new drug research and development area, the company provides valuable and accurate scientific basis and technical principles to promote the research and development of new drugs. (2) Vigorously support the research of new drugs with positive significance and help international cooperation and development with commercial development prospects to promote an international commercial market.

Establishing a rational design and effective growth of the fundamental research base is the new pharmaceutical industry's high-level science study platform for talent cultivation, scholarly exchange and fundamental research. The key role of building a new drug development technology platform is to strongly enhance the new drug pilot of the pharmaceutical company. Selectivity, high effectiveness, and drugforming characteristics are the three characteristics of the compound and the applicant compound. Research on innovative drugs should be tightly mix multiple disciplines through the scope of study such as biological life science, physiology, physics, and Bioinformatics. It has the characteristics of interdisciplinary and comprehensive, so it needs a certain model of collaboration in innovation clusters and plays the combined role of multidisciplinary innovation. Ultimately, the main mission in today's new technology development technology platform is to accelerate the realization of global medical norms and be in line with global norms as quickly as possible. By enhancing the assessment scheme of drug technology, adhere to the people-oriented, strongly develop talent training, use incentives such as the partner scheme, and mobilize and offer complete play to researchers' creative thoughts in order to obtain outcomes, talent and innovation. Thus, it will carry out particular job on healthy environment

problems.

5 Conclusion

In summary, an enterprise's development is inseparable from the enterprise's cultural construction and the enterprise's inner staff's awareness of innovation. With modern society's economic development, corporate managers have to do a detailed study on the current market economy direction, and there is a clear plan. According to the corresponding strategic thinking and innovative ideas to develop the facts, the development of business in the brands and talents should actively promote the innovation and development of pharmaceutical companies. This allows pharmaceutical companies to play their own features in an extremely competitive market, improve their extensive competitiveness, and become a global level of innovation in pharmaceutical technology.

References

- [1] Zhang F. Exploring the path of pharmaceutical technology innovation[N]. Pharmaceutical Economics, 2017-03-09 (F02).
- [2] Liu LC. Research on Technology Innovation Based on Drug Patent Litigation Strategy[D]. Huazhong University of Science and Technology, 2015.
- [3] Bai HQ. Study on the optimization of technological innovation mode of Gansu Xifeng Pharmaceutical Co., Ltd.[D]. Lanzhou University, 2011.
- [4] Zou XH. Research on technological innovation efficiency and its influencing factors in China's pharmaceutical manufacturing industry[D]. Central South University, 2010.
- [5] Li MC. The impact of mergers and acquisitions on technological innovation of enterprises[D]. South China University of Technology, 2010.
- [6] Guo AF. Research on the relationship between enterprise STI/ DUI learning and technological innovation performance[D]. Zhejiang University, 2010.
- [7] Juan Carlos Botero Ramirez. A Model of Collaboration Between Developed and Developing Clusters of High-Tech Innovation: Benefits and Applications[D]. MIT Sloan School of Management, 2013.