

The Influence of Manufacturers' Production and Operation Strategies on Performance Based on Technology Innovation

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Abstract: With the further development of The Times, international economic competition is becoming increasingly fierce. The uncertainty of the international environment has affected the development of the manufacturing industry. There is not enough innovation in China's manufacturing industry, it has always been in a weak position in the world economic development. The manufacturing industry of China has always been questioned by the world. But manufacturing industry as an important industry of economic development, it needs the attention of China. Therefore, China needs to carry out the production technology innovation on the basis of current manufacturing industry, and strongly support the development of manufacturing industry of China. The purpose of this study is to provide guidance and reference for the development of China's manufacturing industry by studying the impact of technology innovation strategy on performance.

Keywords: Technological Innovation; Manufacturing; Operation Strategies; Achievements

1. Introduction

China's manufacturing industry has not been recognized by the world. The main reason is that Chinese manufacturing industry is lack of innovation ability, core technology is more dependent on developed countries, lack of professional research and development personnel, more serious waste of resources in production process and greater pollution to the surrounding environment. Therefore, the manufacturing industry of China needs to be reformed. Technological innovation is an important measure to reform the development of manufacturing industry. China needs to vigorously carry out technological innovation activities, fundamentally solve the problems existing in the process of the development of our manufacturing industry. Promoting the development of manufacturing industry and improving our Chinese status in the field of world manufacturing industry.

2. The problem existing in the development of manufacturing industry of china

2.1 Innovation ability is not strong

From 1901 to 2020, only nine Chinese people have won the Nobel Prize. And the winning number up to 388 people in the United States, Britain etc. There is a big gap with the United States. This shows that China's innovation ability is not strong. The innovation ability is not strong is one of the common problems in China manufacturing industry development process. In the production process of products in China, most of the products are produced according to foreign technology, and the number of products independently developed by China is small. The manufacturing industry of China is now dominated by the production of commodities, with lower technical content and less profit, which is unfavorable to the development of our Chinese economy. For example, the development of the most important chip in the production process of mobile phones, but now most of the chips in the development process of electronic equipment in China mainly rely on foreign imports, China is only the assembly process of parts. In addition, the core part of the production process of ballpoint pens is the production of balls. Because of the poor innovation ability of China, the production of

the ball mainly depends on foreign imports, which leads to the rise of production cost of the ball pen, which is not conducive to the development of enterprises. It can be seen that the innovation ability of manufacturing industry in China has a lot of problems, which greatly hinders the development of manufacturing industry in China. If China wants to occupy a place in the world manufacturing industry, we must improve the domestic creative ability.

2.2 Strong dependence on core technology

The research and development of core technologies can reflect a country's manufacturing strength to a certain extent. The production of most products have core technology. If we master the development of core technologies, we can master the development of economy. In the process of product production, the core technology accounts for the vast majority of profits. However, the core technology of China's manufacturing industry is strongly dependent on foreign countries, and the production process of most products cannot be completed independently. The number of core technology patents applied by enterprises in China is small, which cannot promote the development of manufacturing industry in China. For example, chip, engine and other core technology products, the production of such products mainly depends on imports, which increases the cost of product production and is not conducive to the development of enterprises. For example, Xiaomi and oppo mobile phones, although they are domestic phones, their chips are still imported from abroad. In 2020, China spent 2.4 trillion yuan on chip imports, accounting for 18% of the total domestic imports. A few years ago, the United States restricted the import of Chinese chips, which had a great impact on the development of our electronic field. The strong core technology dependence will make manufacturing industry in China restricted by other countries and hinder the independent development of manufacturing industry in China.

2.3 The waste of resources is serious

Because the development of manufacturing industry in China is not mature, we can not use advanced technology to reduce production cost in the production process of products, which causes a waste of resources. The development of Chinese manufacturing industry is relatively backward compared with foreign countries. There will be a waste of resources in the production process of products or the use of goods. For example, in the production of automobiles, most of the automobiles produced in China consume gas faster. However, most automobiles produced by Japan and the United States, which have relatively developed automobile manufacturing industries, consume fuel slowly, which can save resources to a certain extent. In the process of choosing cars in China, most of the people will also choose the higher cost performance of American and Japanese cars. When producing the same product, the manufacturing industry developed countries can reduce the production cost of the product and save social resources through the corresponding technology, while China needs more resources to complete the production of the corresponding product. From this we can see that China manufacturing industry in the production process will cause certain resources waste, is not conducive to the development of China manufacturing industry.

2.4 It causes great pollution to the environment

Environmental pollution is one of the common problems in manufacturing. Many enterprises need to discharge some manufacturing waste in the production of products, if not properly treated, it will cause pollution to the surrounding environment. Manufacturing industry development in China is relatively backward, the core technology research and development does not reach the designated position. Therefore, in the production process of the product, the cost price is higher, and the profit of the enterprise is less. In the process of waste treatment, need to put in a lot of money, a lot of enterprises in order to increase profits, will choose to ignore waste disposal process, the production process of waste discharged directly into the nature, which causes great pollution to the surrounding environment. China has five of the top 10 most polluted cities in the world. Plastic bag is a common goods in daily life, because the manufacturing technology of China is underdeveloped, the plastic bag produced is not naturally degradable goods in nature, and the developed countries have been able to produce degradable plastic bag. In the process of use, discarded in nature can not be degraded, and will be directly present in nature. It has a great impact on the surrounding environment.

2.5 Poor professional level of production personnel

The development of manufacturing industry cannot be separated from the support of excellent talents. Another important reason for the slow development of manufacturing industry in China is the lack of talents in the field, which cannot satisfy the needs of the development of manufacturing industry. By 2022, there are only 60 million highly skilled workers in China, accounting for only 30 percent of the workforce. Excellent technology research and development personnel is the basic content of manufacturing industry development. Because of the strong dependence of the manufacturing industry on foreign countries, the training of manufacturing talents in China is relatively small. The related majors in universities are the main positions for cultivating talents, but many colleges and universities have the phenomenon of weak pertinence, deviation between theory and reality, and poor teaching quality in the teaching process. Many students do not study seriously when they study. Moreover, the concept of teaching in colleges and universities has deviated, and the society needs innovative compound talents instead of cultured technical workers. As a result of these situations, there are fewer outstanding talents in the field of manufacturing in China, and then core technology research and development is relatively backward developed countries. The lack of talents leads to the slow development of Chinese manufacturing industry, which has a big gap with the developed countries.

3. The influence of technological innovation on manufacturing competition

3.1 Is advantageous to China core technology research and development

The technical innovation is the main approach that enhances China manufacturing industry competition ability. The beginning of technology innovation activities can stimulate people's creative inspiration and actively invest in core technology research and development. Core technology research and development is the first task of manufacturing development. The research and development of core technology needs a certain technical innovation ability to complete. The important reason for the backward research and development of core technology is that the innovation ability of Chinese enterprises is poor, and there are many imitation and plagiarism phenomena. Moreover, this mode of production brings enterprises greater profits, which seriously hinders the development of our manufacturing industry. For example, when producing shoes and hats, foreign Nike and Adidas sell well in the world, creating a good reputation. But China shoe and hat manufacturing industry many adopt the phenomenon of Nike and Adidas logo. In the process of core technology research and development, copying and imitation cannot be carried out, so it needs a certain ability of technological innovation. The innovative technology is the primary condition for the research and development of core technology products, and it is an indispensable part in the development of manufacturing industry in China.

3.2 Effectively reduce the production cost of enterprises

The research and development of core technology products can help enterprises reduce production costs. In the process of product production, the part that spends the most money is the core technology. In the past manufacturing industry, most of the core technology of China was imported from abroad, and the capital spent is more in the process of import. Or the use of experts to assist the production mode, improve the production cost of the product. Vigorously carrying out technological innovation activities in China can enable Chinese enterprises to obtain the ability to produce products independently. Mastering the core technology can reduce the quantity of foreign imports, so as to reduce the production cost to a certain extent. Technological innovation is an effective measure for enterprises to reduce production costs. And through technological innovation, it can reduce the waste of resources in the production process, save more resources and save the cost of enterprises. Technological innovation can also make the reuse of resources, for example, through the recycling of plastics, through production and processing, to produce new products. This can save a lot of raw material expenditure, effectively reduce the production cost of enterprises, so as to promote the common development of enterprises and manufacturing industry.

3.3 Reduce the environmental impact of production

Environmental pollution is one of the biggest problems in the development of manufacturing industry. There are two main reasons for environmental pollution. One is that waste treatment technology is not up to standard, and the other is that waste treatment costs more money, which causes a greater economic burden to enterprises. The problem of environmental pollution can be well solved through technological innovation. The first is environmental pollution caused by substandard technology. Technological innovation provides the manufacturing industry with advanced waste treatment technology, which can quickly and efficiently dissolve waste into harmless substances and discharge them into nature, effectively reducing the environmental pollution brought by manufacturing production. Secondly, due to the environmental pollution caused by capital problems, technological innovation can help enterprises master the core production technology, reduce the expenditure of technology introduction, reduce the capital expenditure in the production process, and reduce the waste of resources, which can help enterprises save a lot of funds for waste treatment. Reduce the financial pressure brought to enterprises by waste treatment, so that enterprises have more funds and energy for environmental pollution treatment. So as to reduce the environmental pollution caused by manufacturing production.

3.4 Increase the speed of production and increase the profits of enterprises

Our manufacturing undeveloped another important reason is that the production speed is slow. The traditional manufacturing industry uses the mode of artificial production. In China, there are relatively few manufacturers produced by machines, and the problems of manufacturers produced by machines are relatively more. Artificial production has certain limitations, and machine production can avoid the limitations of artificial production. At present the developed country factory produces most to adopt the machine production way, China still has certain disparity from the developed country manufacturing industry. The development of technological innovation activities can help the transformation of China's manufacturing industry mode, so as to improve the speed of product production. Through technological innovation, it can provide technical support for product production and replace manual production with machine production. Machine production not only has the characteristics of fast speed, but also can ensure the quality of product production. It only needs professional technicians to control it. It can not only reduce the expenditure of employees wages, but also greatly improve the speed of product production, increase the quantity of goods produced by enterprises, and thus increase the profits of enterprises.

4. Through technical innovation to enhance the concrete measures of manufacturing industry competition ability

4.1 Strengthen the training of professional personnel

The professional level of research and development personnel will have a great influence on the development of manufacturing industry. In the past process of manufacturing industry development, there are relatively few professionals in relevant fields, which leads to the development of manufacturing industry. Therefore, in the reform and the development of manufacturing industry, the need to strengthen the cultivation of the talent work, in order to provide personnel for the development of manufacturing industry base. To improve the level of staff, first of all, we need to improve the teaching quality of related majors in colleges and universities, and fundamentally solve the problem of talent scarcity. Relevant majors in colleges and universities need to carry out real-time innovation of teaching plans according to the actual situation, so as to provide outstanding graduates for the development of manufacturing industry and promote the development of manufacturing industry. Social enterprises can cooperate with colleges and universities to provide internship bases for students and help students accumulate certain work experience, which is conducive to the improvement of students' skill level. Relevant enterprises also need to internal level training for employees, organize regular knowledge lecture, manufacturing related specialized knowledge for employees, creating excellent team.

4.2 Strengthen network construction in the western region

comprehensive, China most product production is concentrated in the western region. So, the construction of the western area will affect the development of our manufacturing industry. The Internet era has brought new opportunities for the development of manufacturing industry. The network construction in the western region is backward, which cannot satisfy the needs of the current development of manufacturing industry, which greatly hinders the development of manufacturing industry in China. The establishment of network system has a positive impact on the development of manufacturing industry, the process of machine production cannot do without the support of network system. Relevant government departments need to establish a perfect network system in the western region to provide convenience for the development of manufacturing industry. First you need to set up network signal tower in the western region, realizing a complete coverage of the network, convenient communication with the outside world. Enterprises need to purchase advanced network equipment to achieve the integration of manufacturing and Internet development. Secondly, it is necessary to provide convenience for enterprises to purchase network equipment, provide financial support for enterprises through the introduction of relevant policies, reduce enterprise network construction expenditures, save funds for the development of manufacturing industry, and then achieve the purpose of promoting the development of manufacturing industry.

4.3 Improve the transportation construction work to provide convenience for the development of manufacturing industry

Transportation is the first element of development. Convenient transportation is the premise of the development of manufacturing industry. Improving transportation construction can provide convenience for the transportation of products, save the transportation time of products, and promote the development of manufacturing industry. The common transportation modes include land transportation, air transportation and sea transportation. When improving the transportation construction, the local government needs to formulate a reasonable transportation plan according to the characteristics of local transportation. For example, coastal cities can take advantage of the convenience of ports to vigorously develop maritime transportation. Inland areas can facilitate the transportation of products by constructing high-speed intersections and adding railway lines. Close to the airport or produce products with a short shelf life choose air. Many factories have a great impact on the surrounding residents and choose to set up far away from the city, so there are certain traffic problems. The government needs to invest funds to improve the transportation construction in areas with underdeveloped transportation and provide convenient transportation for products. For example, high-speed intersections should be built near factories to save transportation time and cost. On the road, the special channel is opened for the transportation of the products of the enterprise, so that the products can be quickly put into the market, and then promote the development of the manufacturing industry of China.

4.4 Strongly support enterprises to produce core technology products

Core technology is very important in manufacturing. But in the past, the core technology products of Chinese manufacturing industry were more dependent on foreign countries, and the core technology products independently developed by China were less. The core technology for the production of most products belongs to foreign countries. Therefore, in the process of reforming manufacturing industry through technological innovation, China needs to give full support to the production activities of core technology products of enterprises, so as to improve our creative level and promote the development of manufacturing industry. The quantity of core technology products can reflect the development degree of national manufacturing industry to a certain extent, so China must pay attention to the research and development of core technology products. The relevant government departments can provide convenience for the research and development of enterprise core technology products, such as setting up special channels for enterprises to provide special patent application channels to save the product application process. It can also increase the reward of patent application and stimulate the enthusiasm of creation of enterprises through a certain degree of material reward. It will increase subsidies for scientific research personnel, such as raising wages, providing family members with work, access to school and medical

care, and encourage college students to join the scientific research team, which has injected fresh blood into the development of China's manufacturing industry.

5. Conclusion

Innovative technology has great development significance in the field of manufacturing industry. The technological innovation in manufacturing industry is beneficial to the research and development of core technologies of China and improves the production quality of manufacturing industry. It can also effectively reduce the production cost of enterprises and promote the development of enterprises. Reduce the production of environmental pollution and can save production links, improve the speed of production. Therefore, China needs to strengthen the development of technological innovation activities in the field of manufacturing. By training professional talents, strengthening the construction of western network, Improving transportation construction, supporting the research and development of core technology products to speed up the construction of manufacturing innovation technology, so as to improve China's influence in the international economy.

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