

Research on the Development Trend of Machinery Manufacturing Industry in the Future

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ABSTRACT

With the rapid development of China's machinery manufacturing industry, machinery manufacturing industry has brought great convenience to people. Machinery manufacturing accounts for a large proportion of the national economy, and many professionals in the industry pay great attention to its development status and future trend. At present, the social competition is becoming increasingly fierce, and the machinery manufacturing industry has gradually increased its requirements for relevant production technology. It is necessary to increase the recruitment and training of professionals in order to promote the sustainable development of the machinery manufacturing industry in the future. We need to pay more attention to the product quality of the machinery manufacturing industry and have the spirit of innovation in order to enhance the competitiveness of the whole industry. In the near future, the machinery manufacturing industry will usher in a new round of challenges. This paper mainly analyzes the development status and existing problems of machinery manufacturing industry, and studies the development trend in the future.

Keywords: Machinery manufacturing, Development status, Future trends

1. INTRODUCTION

Machinery manufacturing industry refers to the industry engaged in the production of various power machinery, hoisting and transportation machinery, agricultural machinery, and other mechanical equipment. Machinery manufacturing is the pillar of the national economy. In the process of continuous improvement of international economy and trade, it has brought good development opportunities to the mechanical and electronic engineering industry, making it a pillar industry of the national economy. It occupies a pivotal position in the current society and has a great impact on the development of social and economic civilization[1-2]. Machinery manufacturing industry provides technical equipment for the whole national economy, and its development level is one of the main symbols of national industrialization[3]. In recent years, the total revenue of China's construction machinery industry is shown in Figure 1.

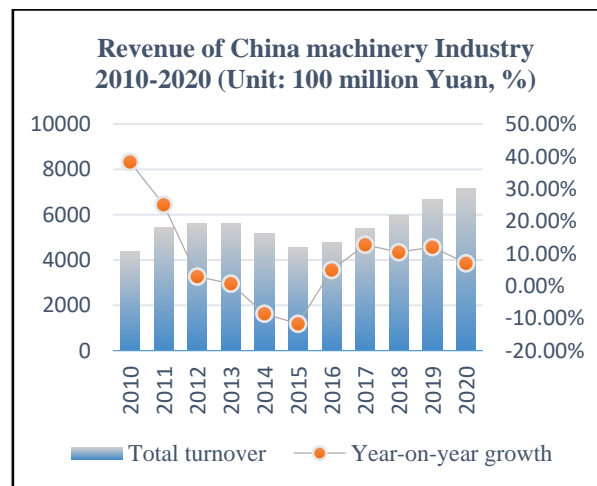


Figure 1 Revenue of China's machinery Industry from 2010 to 2020 (unit: 100 million Yuan, %)

With the development of science, technology and social economy, the machinery manufacturing industry has gradually become a national pillar industry, so as to improve the quality of national life. Machinery manufacturing industry in a more intelligent way to promote the rapid development of China's machinery manufacturing industry so as to occupy a favorable position in the international market. With the rapid

development of economic globalization, the cooperation among countries all over the world is conducive to improving the process level of machinery manufacturing industry [4]. For China, improving the level of machinery manufacturing is conducive to promoting the development of China's national economy, recognized by all countries in the world, so as to enhance China's international status. The innovation and development of global machinery means that the technology of the whole industry is also changing. With the wide application of Internet technology in mechanical manufacturing industry, the accuracy, quality and mechanization of mechanical parts are controlled by the Internet. Mechanical manufacturing technology promotes the development of manufacturing industry in a new direction [5-6].

2. PROBLEMS IN THE DEVELOPMENT OF MACHINERY MANUFACTURING INDUSTRY

2.1. Lack of product diversity

One of the main problems of China's mechanical and electronic industry is the lack of diversity of products, which is not conducive to the development of the whole industry. Judging from the current situation of China's mechanical and electronic engineering industry, there are still fewer products. Although it can better improve the product quality, it is not conducive to the long-term operation of the enterprise.

2.2. Lack of automatic production technology capacity

In some developed countries, machinery manufacturing has basically realized automation, such as automobile assembly. The development of automation has brought huge benefits to various industries, which can greatly reduce the labor demand and greatly improve the production efficiency, so as to increase the profit margin of enterprises. However, China's machinery manufacturing has not popularized automation, which is not conducive to the development of China's machinery manufacturing industry and lacks competitiveness in the global market. This has led to the fact that China's high-end products are more dependent on foreign imports, which further leads to the fact that Chinese enterprises can only turn to the production of medium and low-end products. At the same time, enterprises cannot maintain good accuracy and yield in the production and processing process.

2.3. Lack of high-tech talents

Talents are the cornerstone of the industry, and high-tech and high-quality talents are the pillars supporting the industry. Cultivating high-tech talents is to open up a

way forward for the machinery manufacturing industry. China's machinery manufacturing industry started late, and the training scheme of relevant talents is relatively lack and backward. In this regard, the state should issue corresponding policies for high-tech talents and establish a perfect training and reward system, which is very important for the training and attraction of high-tech talents, so that the machinery manufacturing industry can grow actively and occupy a place in the global market.

2.4. Lack of independent innovation ability

In the market of economic globalization, continuous innovation is needed to maintain good competitiveness. Compared with the global market, China needs to strengthen technology research and development in machinery manufacturing industry and continuously improve the ability of independent innovation. At present, there is a lack of perfect intellectual property protection system and fair competition and antitrust system of intellectual property in China, which will seriously affect the development of China's machinery manufacturing industry.

2.5. Imperfect management system

Compared with developed countries, the management system of machinery manufacturing industry in China is relatively backward. Because China belongs to the developing countries, so, the machinery manufacturing industry and developed countries or there is a big gap. Machinery manufacturing industry in our country starts late, can learn a lot from foreign on management style, coupled with China's situation, formulate a set of suitable management system, in different links of the mechanical manufacturing work to achieve the comprehensive coordinated development, to strict monitoring of irregularities, arrange the specialist is responsible for, for possible safety hazard places to improve, improve the quality of the mechanical manufacturing industry.

3. FUTURE DEVELOPMENT TREND OF MACHINERY MANUFACTURING INDUSTRY

3.1. Integration of mechanical manufacturing

Compared with some developed countries, the development of China's machinery manufacturing industry is relatively slow, and its industrial level is relatively backward. With the innovation of science and technology, the mechanical manufacturing industry is also developing towards the integration of mechanical manufacturing. In the process of mechanical manufacturing, the integrated development mode can improve the efficiency of machining, so as to further improve the work efficiency. Therefore, in the future development of mechanical manufacturing industry, integrated automatic control

technology is applied to improve work efficiency and improve the corresponding technology.

3.2. Precision of mechanical manufacturing

With the continuous progress and development of science and technology, enterprises have higher and higher requirements for the process of mechanical products, and the market has more refined requirements for the process of mechanical manufacturing. Especially in the aerospace field, the spare parts have the characteristics of ultra precision. High density precision machining is an eternal topic in the machinery manufacturing industry. Miniaturization and scientization are the top priority of enterprise development in the future, and they are also the main research direction of relevant national departments for mechanical design and manufacturing in the future.

3.3. Intelligent mechanical manufacturing

With the vigorous development of science and technology, the application of computer technology in people's daily life is becoming closer and closer. At the same time, it also brings many conveniences to the development of machinery manufacturing industry. Applying computer technology to mechanical manufacturing industry can not only improve the work efficiency of mechanical manufacturing industry, but also improve its process accuracy, make products more precise and meet people's daily needs. By combining the machinery manufacturing industry with intelligence, and by cultivating high-quality talents and developing cutting-edge technologies, we can reduce the gap with enterprises in developed countries, so as to speed up the overall development of China's machinery manufacturing industry and ensure the sustainable development of China's machinery manufacturing industry.

3.4 Diversification of machinery manufacturing

Have to be innovative as the demand of the market and consumers, more need to all-round development and innovation of products, increase the range of products, meet market and consumer demand, especially for mechanical manufacturing, single product has been unable to meet the needs of the consumers, want to meet the domestic and foreign markets, in market competition, need machinery products more diversified. Only change the status quo of single export trade, to various, multi-angle, multi-level development, improve the quality of their own products, further improve the competitiveness. So that our machinery manufacturing industry can obtain advantages in the future market competition, improve the competitiveness of the international market.

4. CONCLUSION

In recent years, China's machinery manufacturing industry has made great progress in the development process, especially in the product R & D stage. It has high trade export value and foreign trade competitiveness, and it has gradually become a pillar cause of China's economic development. With the continuous development of science and technology, the machinery manufacturing industry has higher and higher requirements for the level of information technology. Due to the continuous integration of automation technology in the process of mechanical design and manufacturing, the scope and field of mechanical manufacturing industry are widened, the production efficiency of mechanical parts is improved, the quality of mechanical products is improved, and the labor cost is reduced.

In the future, the machinery manufacturing industry needs to constantly improve its innovation ability, understand the real needs of customers, independently research and develop diversified project products, promote the combination of other industries and machinery manufacturing industry, ensure that China's machinery manufacturing industry in the export market to achieve greater competitiveness, promote the development of China's machinery manufacturing industry towards a higher direction.

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