

Research on the Mechanism and Path of Industrial Internet Platform Promoting the Deep Integration of Advanced Manufacturing Industry and Modern Service Industry

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Abstract: Owing to the constant progress of the domestic economy, China's economic structure has also reached a critical period of transformation and upgrading. Manufacturing and service industries are essential components of China's economy. Accelerating the deep integration of advanced manufacturing and modern service industries is an inevitable requirement for social and economic progress. Owing to the era context of "Internet plus", this paper analyzes the mechanism of deep integration of advanced manufacturing and modern service industry in detail, explores the current situation and existing problems of the integration of advanced manufacturing and modern service industry in China at the current stage, and proposes effective paths to push the deep integration with the industrial Internet platform, hoping to offer help for the deep integration.

1. Introduction

The requirements of China's economy for high-quality progress make the traditional manufacturing industry must be transformed and upgraded. Pushing the industrial integration of advanced manufacturing and modern service industry meets the new needs of industrial structure transformation and upgrading. The continuous progress and application of Internet technology also provides a new direction for pushing the deep integration.

2. Mechanism Analysis of Deep Integration between Advanced Manufacturing and Modern Service Industries

Innovation-driven progress is the main way of social progress today, and the integration and innovation of advanced manufacturing and modern service industries is also a positive response to the innovation-driven progress strategy. With the rapid progress of Internet technology, the deep integration is the inevitable result of the dual role of technology progress and market demand. The continuous changes in the economic market and the iterative updates of science and technology will stimulate the emergence of the concept of deep integration. A large amount of human and social resources need to be invested, and joint efforts and cooperation within the industry are needed. The introduction of industrial Internet platform also needs to continue to carry out adaptive applications according to the process of integration, promoting the degree of integration.

The deep integration will run through the research, production, and subsequent services of the manufacturing industry. With advanced Internet technology, the manufacturing industry can collect the information fed back by the market and customers in the R&D and manufacturing process, deeply integrate the information, actively feed back the market needs in the early stage of manufacturing, adjust its manufacturing strategy in real time, integrate modern service concepts, and transform into a service-oriented manufacturing model oriented by customer needs and product services. ^[1] The deep integration has broken through the upper limit of the progress of traditional industries. The new mechanisms that can be integrated between the two industries are very diverse. The combination with the Internet has made the traditional industrial boundaries exceed the original

boundaries, greatly expanding the progress space of advanced manufacturing industry and modern service industry.

3. Current Situation and Problems of the Integration of Advanced Manufacturing and Modern Service Industries

Since the reform and opening up, China's productive manufacturing industry has entered a peak period of progress, and the scale of the manufacturing industry has been continuously expanding. But owing to the constant progress of China's economy, the economic structure is facing transformation and upgrading, and promoting the integration has become a significant part of China's industrial structure optimization and adjustment. Especially as China's economic structure has reached a critical period of transformation and upgrading, it is required that the economy develop with higher quality and accelerate industrial transformation and upgrading. China has also further accelerated the integration and progress of advanced manufacturing and modern service industries, with a significant increase in the degree of service-oriented manufacturing. The integration of advanced manufacturing and modern service industries in China has achieved remarkable results. However, looking at the current situation of integration in China, the integration and progress still faces many problems.

3.1 Insufficient Understanding of the Deep Integration of the Two Industries

Although China strongly advocates for the deep integration of advanced manufacturing and modern service industries, there is a lack of sufficient understanding of the concept, model, and implementation path of the integration in specific implementation. Looking at the current progress status of enterprises in our country, many enterprises have a phenomenon of emphasizing practice over concepts and emphasizing production over services. The concept of service-oriented manufacturing is very vague, and the deep integration of advanced manufacturing and modern service industries is mistakenly regarded as the progress of productive service industries. The true concept of the integration of the two industries is unclear. In reality, few enterprises can start from the needs of customers, innovate their own business models, and deeply integrate services and products. They have no clear understanding of the mode of new service manufacturing, nor can they seize new opportunities for progress under the industrial Internet. Enterprises lack a clear understanding of the integration model, and are not adequately prepared for innovative restructuring in terms of customer relationship changes, technological application levels, and organizational structure adjustments during the integration process, making it impossible to achieve deep integration.

3.2 Insufficient Application of Internet Technology Platform for Integration of Two Industries

Internet technology is gradually integrated into all aspects of production and life. Enterprises also use Internet technology to improve their operational efficiency. However, during integration of China's manufacturing industry and service industry, the significance of Internet technology was not fully recognized, and the role of Internet technology in promoting the integration of the two industries was also ignored. When integrating the two industries, enterprises attach importance to the introduction of production technology but underestimate the application of information and intelligent technology. [2] The data and information flow in the research and progress, production, sales and other links of enterprises is not smooth, and various departments operate independently, unable to share and centrally process data, seriously limiting the extension of manufacturing to the service industry and hindering the deep progress of the integration. In the Internet era, industrial Internet technology is a huge blessing on the production efficiency and operating efficiency of manufacturing industry, and can also effectively promote the deep integration. It is a necessity for the progress of enterprises in the current era. However, at the current stage, the application of Internet technology in China's manufacturing industry is not enough, and the progress trend of the "Internet plus" era is also not fully understood. Industrial Internet technology is difficult to play its due role, and it is also difficult to promote the integration of manufacturing and services at both

ends.

3.3 Single Main Body of the Integration of the Two Industries

The main body of China's integration of advanced manufacturing and modern service industries is relatively single. Looking at the current progress status of manufacturing enterprises in China, most of them still adopt traditional production and manufacturing models, with insufficient transformation towards service-oriented production, especially the extension towards intelligent and information-based production. The leading and demonstrative role of the top manufacturing industry in the manufacturing industry is not strong, and a large number of middle and low-level manufacturing enterprises have low enthusiasm for carrying out dual industry integration. The demonstration of the integration is insufficient, making it difficult for other enterprises to recognize the economic progress benefits brought by dual industry integration.

4. Effective Paths for Industrial Internet Platform to Promote the Deep Integration of Advanced Manufacturing and Modern Service Industry

4.1 Deepen the Understanding of Enterprises towards the Integration of the Two Industries

The integration of the two industries is a significant part of China's economic transformation and upgrading, and its progress has a crucial impact on the high-quality progress of China's economy. The integration of the two industries, as the main direction for the future progress of China's service manufacturing industry, has always been a key concern in the progress of China's manufacturing industry. It is hoped that by promoting the deep integration, China's economy can achieve high-quality progress.^[3] Thanks to the continuous progress of Internet technology, the application of Internet technology has brought new progress opportunities for the integration of the two industries. Under these opportunities, enterprises must attach more attention to the integration of the two industries. The traditional manufacturing methods and service models are no longer in line with the progress trend of the current social manufacturing industry. "Internet plus" is the progress direction of the future manufacturing and service field. Enterprises ought to focus on the advantages of industrial Internet technology in actual production services, deepen their understanding of the integration of the two industries, apply industrial Internet technology to promote industrial integration, and inject new impetus into the progress of the two industries.

4.2 Strengthen the Role of Industrial Internet Platform in Promoting the Deep Integration of the Two Industries

To realize the deep integration, we must strengthen the role of industrial Internet platform in promoting the integration. Owing to the continuous progress and application of Internet technology, industrial Internet technology is becoming the key link for the integration. By building an intelligent big data platform, data sharing can be achieved in various aspects such as research and progress, production, and service, providing real-time data information for enterprises, helping them make more scientific operational decisions, and promoting the improvement of production efficiency and product quality. Modern service industry can also realize service mode innovation and business process optimization with the help of industrial Internet technology. For example, in production management, it can achieve real-time monitoring and analysis of production data, timely resolution of manufacturing production issues, risk avoidance, and optimization of resource allocation^[4]. In the field of customer service, the use of Internet big data analysis capabilities to provide customers with personalized service programs can effectively improve customer satisfaction. The industrial Internet platform can make the integration closer, jointly promote the intelligent upgrading of the industrial chain, Through the application of the industrial Internet platform, it not only expands the development space of the manufacturing and service industries, but also provides a strong driving force for the transformation and upgrading of China's real industry. With the continuous progress of industrial Internet technology, the application scenarios of industrial Internet technology will continue to expand, and the intelligent upgrading of the industrial chain will be promoted with

advanced technological advantages and contribute to the sustainable progress of social economy.

4.3 Improve the Construction of a Public Service Platform for the Integration of the Two Industries

In the Internet era, with the aid of the industrial Internet platform, we can found a public service platform for the integration of the two industries, establish a sharing technology platform, big data analysis platform, information exchange platform, etc., which is conducive to pushing the deep integration, and offer platform support for the integration of the two industries [5]. While promoting the integration of the two industries, leading enterprises can also share their integration achievements and experiences on the platform, play a leading role in promoting the coordinated progress of the entire manufacturing and service industries, jointly promote the deep integration, and promote the high-quality progress of China's economy.

4.4. Use the industrial Internet to deepen service-oriented manufacturing

With the continuous development of China's economy and society, China's advanced manufacturing industry is also actively promoting its own intelligent and service-oriented transformation. As an important medium connecting manufacturing industry and service industry, industrial Internet plays an important role in promoting the deep integration of advanced manufacturing industry and modern service industry. Service-oriented manufacturing is an important direction in the development of advanced manufacturing industry. Service-oriented manufacturing takes customers as the center, and satisfies customers' diversified needs for manufacturing products by providing personalized and differentiated services. By deepening the use of the industrial Internet, manufacturing related enterprises can collect and analyze customer demand, market situation and production data in real time, providing a scientific basis for the business decisions of manufacturing enterprises. At the same time, enterprises can use the industrial Internet platform to realize the intelligence and automation of the production process. For example, the advanced manufacturing industry can use the Internet of Things technology to monitor the status of production equipment in real time, scientifically arrange production plans, and improve production efficiency; Through cloud computing and big data technology, advanced manufacturing enterprises can realize centralized data processing and analysis, optimize production processes, and improve production efficiency. The advanced manufacturing industry relies on the industrial Internet platform to promote the deep integration of manufacturing and service industries, and uses the advanced advantages of the industrial Internet platform to expand the traditional manufacturing business to the modern service industry by applying the Internet of Things technology, artificial intelligence technology, and big data analysis in the current advanced manufacturing industry, deepening service-oriented manufacturing, and promoting the modernization of the manufacturing industry.

5. Conclusion

There are still many problems in the integration of advanced manufacturing industry and modern service industry in China. Based on the era context of "Internet plus", Chinese manufacturing enterprises should actively apply new technologies, update their management concepts, transform to service-oriented manufacturing, push the deep integration with the help of industrial interconnection platform, help the transformation and upgrading of China's industrial structure, and ensure the long-term progress of social economy.

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