Research on the Strategy of Service Transformation of Manufacturing Industry in Jiaxing

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Keywords: Jiaxing manufacturing industry; Service-oriented manufacturing; Manufacturing transformation.

Abstract. This paper, firstly, states the concept of service-oriented manufacturing, then analyzes the current situation and existing problems of the service transformation of Jiaxing's manufacturing industry, and points out five directions for the service transformation of Jiaxing's manufacturing industry. Finally, some suggestions are put forward for the implementation guarantee of transformation from manufacturing industry to service industry.

Introduction

In 2015, “Made in China 2025” has proposed to develop service-oriented manufacturing and producer services. Service-Manufacturing has become an important direction of the transformation and upgrading of manufacturing enterprises.

Traditional manufacturing industry is the main body of Jiaxing's real economy. From the perspective of historical practice, the traditional manufacturing industry laid a solid foundation for the economic development of Jiaxing. From the development reality of view, traditional manufacturing industry is an important force for Jiaxing's economic upgrading. However, there are many difficulties and challenges in the development of Jiaxing's traditional manufacturing industry at this stage, except for resource shortage, rising cost, environment constraints and other external factors, there still exist more significant problems, such as the low industrial structure level, the mismatch of supply and demand structure, and the weakness of enterprise strength, etc. [1]. Therefore, to promote the transformation of Jiaxing's manufacturing industry to service-oriented is to rejuvenate and rebuild the traditional manufacturing industry, but also it is the practical choice of Jiaxing's economic transformation and upgrading.

The Concept of Service-embedded Manufacturing

Service-oriented manufacturing is a new industrial form of integration of manufacturing and service, and it is a major trend of manufacturing transformation and upgrading.

The economic activities of traditional manufacturing enterprises only stay in the production and processing section, which create the lowest value on the smile curve (shown in Fig. 1). The transformation of manufacturing industry to service is to move further up the value chain: into design, component procurement and research and development, so as to improve the profitability of traditional manufacturing industry.

In general, service-oriented manufacturing is to transform manufacturing enterprises from "assembly and processing" to "manufacturing + service," from "selling products" to "selling products + services." There are less apt to make distinctions between manufacturing and service.
The Present Situation of Manufacturing Service in Jiaxing

According to the 2018 national economic and social development statistics bulletin of Jiaxing City, the annual GDP of Jiaxing City in 2018 is 487.198 billion yuan, and the secondary industry is 262.449 billion yuan, accounting for 53.9% of the total GDP of the city. We can see that the manufacturing industry is still an important pillar of Jiaxing's economic development. The tertiary industry is 213.246 billion yuan, accounting for 43.8% of the city's GDP, which increased compared with 41.6% of GDP in 2014. This shows that with the optimization and upgrading of Jiaxing's industrial structure, the status of service industry in the economic development is constantly improving, and gradually becomes the backbone of Jiaxing's economic transformation and upgrading. However, there are still many problems in the service-oriented manufacturing industry. Most of the manufacturing industries still do assembly processing, and selling goods only, have not yet successfully transformed into service-oriented enterprises.

Generally, Jiaxing promotes the transformation from manufacturing industry to service industry with the "four plus" model.

"Internet +" Service Manufacturing

In the process of building a digital economy city, Jiaxing attaches great importance to develop digital service-oriented manufacturing. Among 113 service-oriented manufacturing cultivation projects in the city, more than 70% are based on "Internet +."

"Robot +" Promotes Production Process Service

This mode is devoted to provide production line establishment and transformation, non-automated design and manufacturing, robot application total solution, robot maintenance and other automatic equipment system integration services for the small and medium-sized enterprises.

"Industrial Design +" Extending Service

Industrial design is an effective method to shift from manufacturing to creating. Take Xinxiu group as an example, in the past, Xinxiu group paid more attention to the innovative design of individual products, and less consideration to the strategic design of the whole enterprise. Now through the redesign of the production design, technological process, management system and marketing system of the enterprise, which have established a well functional, quick response and comprehensive supporting internal innovation and development mechanism of the enterprise.

"Brand Standard +" to Build a Professional Service-oriented Manufacturing Platform

To build a professional service-oriented manufacturing platform for the industry is to integrate the traditional industry with the Internet economy, and it can better enhance the friendship and
cooperation between manufacturers and professional market merchants, to promote the upgrading of traditional industries.

Problems

Manufacturing Value still needs to be Improved

The economic activities of Jiaxing manufacturing industry mainly stay in the processing and manufacturing links, and the product value chain is at the lowest position in the "smile curve." In the manufacturing process of most manufacturing industries, there are few links with high value such as R&D, design and marketing. There is still much room for growth to create value by manufacturing industry in the value chain.

Lack of Full Life Cycle Service of Products

The whole life cycle of products includes R&D and design, customized production, brand marketing, logistics distribution, maintenance services and other management links. In the whole life cycle management process of product use and maintenance, manufacturing enterprises should provide customers with a variety of services, which is a long-term service relationship between manufacturing enterprises and their customers. However, manufacturing industry in Jiaxing failed to provide such service.

Insufficient Value of Knowledge Assets in Manufacturing Enterprises

There is a cost-increment respectively concept mentioned in economics, which is the cost of producing a certain quantity of products by one manufacturing enterprise is less than the sum of the costs of producing the same quantity of products by multiple enterprises. Enterprises have a large number of technical resources, management resources, channel resources, brand resources and customer resources, by sharing these knowledge assets, enterprises can provide services at a lower cost than other enterprises. However, the comprehensive quality of Jiaxing manufacturing enterprises is not high, and the value of internal knowledge assets is small.

Industrial Internet has not been Completed

The industrial Internet refers to the transformation and reconstruction of the industrial chain and value chain with the Internet idea, bringing about the improvement of industrial efficiency, the transformation of industrial organization mode or even business mode. The development of the industrial Internet will drive the optimization and upgrading of the whole industry, and it is the key infrastructure to support the intelligent development of the manufacturing industry.

The Industrial Internet requires high infrastructure and technology, while the informationization level of Jiaxing's manufacturing industry is low because it is mainly composed of small and medium-sized enterprises, which is difficult to support the development of the industrial Internet.

Suggestions

Add Value through Product R & D Design

Jiaxing's manufacturing enterprises can improve product additional value and brand value through product R&D design, for instance, to provide industrial design services, such as product appearance design, product functionality design, or to provide individualized product design.

Expand Services around the Whole Life Cycle of Products

After the product is delivered to the customer, the way to improve product increment through some service-oriented means in the follow-up operation process. In this process, many new business models are constantly created. For example, to provide product life cycle services to realize appreciation, such as remote diagnosis services, real-time maintenance services, as well as outsourcing and operation services.
**Add Value through Product Transaction Facilitation**

Improving the convenience of product transaction is regarded as a manufacturing enterprises competition, and is becoming an important source of the core competitiveness of enterprises. It can be expanded by the following three types: to provide a diversified financial financing service, such as selling products by leasing, the accurate supply chain management services, the convenient e-commerce services.

**Add Value through Product Integration**

In many cases, the needs of clients are not only a single product, but also integration portfolio, especially in electric-power industry, transportation, telecommunication, electronics, machinery and other industries, what manufacturing enterprises needs is to provide integrated, integrated and systematic product solutions.

There are two different business models: the first is the system solution based on integration and gross contracting, that is, from selling a single product to selling a complete set of equipment and a complete set of production line. The second is that manufacturing enterprises not only sell clients a complete set of equipment and production lines, but also provide operation and maintenance, design, planning, manufacturing, construction, training, maintenance and other services.

**Conclusion**

Service transformation is the inevitable trend of Jiaxing's manufacturing industry development. In order to ensure the successful transformation of Jiaxing's manufacturing industry to service industry, manufacturing industry needs to establish an integrated industrial development concept; strengthen the internal knowledge assets of enterprises; clarify the service transformation path of manufacturing industry; promote comprehensive innovation of enterprises; and participate in and build the industrial Internet ecosystem.

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