

Research on the Development Path and Digital Transformation of Specialized, Refined, Unique and New "Little Giant" Enterprises

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Abstract. As China's economy gradually moves towards a stage of high-quality development, the traditional extensive development model is no longer suitable for this transformation demand, and there is an urgent need to shift towards a more intensive, efficient, and sustainable development mode. Innovation is not only the driving force for high-quality development but also the main means of balancing economic and social development. The development of specialized, refined, and innovative "little giant" enterprises can effectively promote technological self-reliance and support the inherent needs and practical paths for the high-quality development of the Chinese economy. Meanwhile, digital transformation is a necessary path for enterprises to adapt to market changes, improve operational efficiency, and innovate business models. Based on this, this article mainly analyzes the development path and digital transformation path design research of specialized and innovative "little giant" enterprises. After analysis, this article believes that the development of small and medium-sized enterprises can be divided into three stages: growth start-up, specialization and innovation, and the "little giant" stage. The three elements of efficiency change, innovation drive, and value co-creation are coordinated, and digital transformation is promoted in three stages. Suggestions are also made for the development of specialized, refined, and innovative "little giant" enterprises.

Keywords: Specializing in new and innovative "little giants", digital transformation, innovation, customer needs, value co-creation.

1. Introduction

In the past year, against the backdrop of the rise of anti-globalization trends and the accelerated restructuring of global industrial and supply chains, China's high-tech development has encountered a "bottleneck" phenomenon. Core technologies are constrained by people, and industrial upgrading and development are restricted. The "Specialized, Refined, Unique, and New Little Giant" is a policy measure proposed by the Ministry of Industry and Information Technology of China to promote the transformation and upgrading of small and medium-sized enterprises, enhance core competitiveness, and explore key technological methods. It refers to the professionalization, refinement, specialization, and novelty of small and medium-sized enterprises. These types of enterprises focus on a specific niche market or field, forming a unique market positioning and technological advantage. In terms of technological innovation, management innovation, and business model innovation, these enterprises have novelty and can continuously launch new technologies, products, and services. Cultivating and promoting the high-quality development of "specialized, refined, unique, and innovative" small and medium-sized enterprises is of great significance in building a strong manufacturing country, ensuring employment security, and stimulating enterprise vitality. It not only helps to improve the resource utilization efficiency of enterprises, but also promotes progress in quality, efficiency, and power transformation [1].

With the development of the digital economy, consumers are increasingly inclined to use digital services and products. In the process of improving supply chain management and exploring new business models, digital transformation has become an inevitable trend for enterprises. The development path of specialized and innovative "little giant" enterprises is closely related to digital transformation and has important practical significance. Firstly, digital transformation helps

specialized, innovative, and "little giant" enterprises improve operational efficiency. Secondly, digital transformation promotes innovation. By utilizing big data and artificial intelligence technology, enterprises can analyze market trends, gain insights into customer needs, and innovate products. Thirdly, digital transformation helps businesses expand their markets. By establishing e-commerce platforms and social media marketing, companies can reach a wider customer base, especially the younger generation of consumers. Digital marketing strategies not only reduce marketing costs but also increase brand awareness and customer loyalty. Fourthly, digital transformation also helps enterprises improve their risk management capabilities, effectively manage energy consumption, and promote sustainable development.

This article analyzes the development path and digital transformation of specialized, innovative, and "little giant" enterprises. The first part of this article will explore the growth of specialized, refined, innovative, and "little giant" enterprises. The second part will explore the path and strategy of enterprise digital transformation. The third part is an analysis of key strategies for digital transformation.

2. Analysis of the Development Path of "Little Giant" Enterprise

2.1. Overview of Development Path

"Little Giant" enterprise always adheres to the strategic direction of "focusing on segmentation and professional cultivation". The enterprise continuously promotes efficiency improvement through lean production. Continuously enhancing innovation capabilities by focusing on key technologies; By building a value community, achieving green and intelligent development, and enhancing the sustainable development capability of enterprises. Its development stages can be summarized into three stages: the initial growth stage, the specialized and innovative stage, and the little giant stage. In the growth process of specialized and innovative "little giant" enterprises, efficiency transformation, innovation-driven, and value co-creation are the three key influencing factors.

2.1.1. Success, initial stage: prioritize efficiency transformation to promote rapid growth of the enterprise

The most important task for a long-term enterprise is to survive in a fiercely competitive market to enter the growth phase. At this stage, efficiency change is the main driving factor, while innovation-driven and value co-creation are the two supporting factors.

The specific manifestation of the first-rate change in the initial stage of enterprise growth is lean production. Innovation-driven and value co-creation manifest as independent research and development and a customer-centric approach. Most enterprises which are small and medium-sized at this stage focus on producing products that were initially positioned, mainly through continuous improvement of intelligent manufacturing level, continuous implementation of refined management, continuous optimization of supply chain management and other measures, continuously improving lean production level, continuous improvement of business efficiency, so that the production system of the enterprise can effectively respond to complex and changing market demands, and enable the survival of the enterprise.

2.1.2. Specialized and innovative stage: innovation-driven leadership, promoting the leap of enterprise competitiveness

Newness is the essential requirement and basic guarantee for the sustainable and healthy development of the "Little Giant" enterprise. Technology, products, and services require sustained and high-intensity innovation investment to support the transition of small and medium-sized enterprises to professionalized, refined, and creative enterprises. In the stage of enterprise development towards specialized, refined, and innovative enterprises, innovation-driven becomes the dominant driving factor, while efficiency change and value co-creation become two supporting factors. Innovation mainly includes capacity innovation and research and development innovation.

Capacity innovation mainly refers to the transition of enterprises from "traditional lean" to "intelligent integration". When enterprises were first established, they were mostly workshop-style processing plants. During the development process, the demand for production capacity increased and the factories gradually standardized. From small workshops with few people to factories with thousands of people, specialized and innovative enterprises have achieved a transformation from traditional lean production to intelligent system integration driven by capacity innovation. Research and development innovation requires the formation of technological advantages. Innovation and research and development are the core driving forces behind the growth of specialized and innovative "little giant" enterprises. These enterprises usually attach importance to specific niche markets and form their own technological advantages and core competitiveness through continuous technological innovation and R&D investment. According to data from the Ministry of Industry and Information Technology, the average R&D intensity of specialized, refined, and innovative "Little Giant" enterprises has reached 10.3%, far higher than the industry average level.

2.1.3. "Giant" stage: empowering value co-creation and promoting the growth of enterprise platform ecology

To develop the ability for sustainable growth, small businesses must be embedded in the social system. Enterprises need to build a growth ecosystem with suppliers and customers. Fully tap into the potential of employees within the company, build a community of shared interests, and work together to promote the growth of the enterprise. At this stage, value co-creation becomes the dominant driving factor, while efficiency change and innovation drive become the two supporting factors. Among them, value co-creation is manifested in the establishment of a community of shared interests.

2.2. Characteristics and Usage Conditions of Development Path

2.2.1. Specialization development direction in specific fields

"Little Giant" enterprise always adheres to the strategic direction of "focusing on segmentation and professional cultivation", focuses on common goals, divides them into multiple short-term goals, applies innovative development and research from lean production to intelligent manufacturing, and then forms a relatively complete supply chain collaboration industry chain.

2.2.2. Firm, efficiency transformation, innovation-driven, value co-creation

The three key factors that affect the growth of "little giant" enterprises are rate change, innovation-driven, and value co-creation. At different stages of enterprise growth, due to the different internal capabilities and external competition faced by the enterprise, the three influencing factors play a leading role, but they also influence and promote each other, working together to promote enterprise growth [2].

2.2.3. Strong, three factors coordinated promotion

From the perspective of the growth history of multiple small and medium-sized enterprises, the three factors of efficiency change, innovation drive, and value co-creation interact and blend in a spiral cycle on the main line of "focusing on segmentation and deepening professional cultivation". In the initial growth period dominated by mainline products, efficiency transformation ensures the survival of the enterprise, and the development driven by innovation and value co-creation provides management and technological accumulation for the next stage of technological innovation. In the stage of deepening "specialization," "refinement," "uniqueness," and "novelty" and product upgrading, innovation-driven enterprises are encouraged to increase their market share through new product research and development and integrated innovation. In the "Little Giant" stage, a community of shared interests is formed with customers and suppliers through value co-creation, and a community of shared interests is formed with employees, further promoting technological innovation and efficiency improvement in the enterprise.

3. Specialization, New "Little Giant" Enterprise Digital Transformation Path and Strategy

Transforming the digital industry is a strategy for enterprises that aims to create value and drive business change with digital technology to develop. Through digital transformation, enterprises can achieve business model transformation, innovate products and services, improve efficiency, and reduce costs, thereby gaining greater competitive advantages and increasing enterprise value. However, in the process of enterprise transformation, some companies, although investing a large amount of financial, material, and human resources, often face the dilemma of ineffective or even failed transformation. In general, small and medium-sized enterprises have shortcomings like complex processes, and insufficient financial and human resources. Therefore, strengthening the research on the design of transformation paths in the digital transformation process of small and medium-sized enterprises has important theoretical and practical significance for promoting enterprise digital transformation.

3.1. The Process of Promoting Digital Transformation

The digital transformation process of small businesses can be mainly divided into three stages. Firstly, explore the validation period. At this stage, the focus is on building a digital business model that is suitable for one's development. Secondly, the opportunity growth period. At this stage, the focus is on enhancing resource integration capabilities to improve the momentum of enterprise digital transformation. Thirdly, the period of system development. At this stage, the focus is on strengthening competitive advantages and achieving sustainable development.

The exploration period focuses on exploring development models, and in the early stages of becoming a specialized, refined, and innovative "little giant" enterprise, enterprises will inevitably go through the process of exploring development strategies. Most medium-sized manufacturing enterprises will follow the trend of Internet development, aim at the Internet digital market, and sprout the strategic idea of digital transformation. The strategy of digital production and sales can enable some enterprises to survive in fierce market competition but also face the risk of initial transformation failure. Enterprises that have experienced initial failures in digital transformation still do not give up on this path. They continue to explore, learn from their failures, and create a digital business model that is suitable for their development environment. Ultimately, they establish a business model that is suitable for their development and clarify the direction of transformation.

The formation period of the conference focuses on strengthening transformation. While the Internet drives the development of related industries, it also speeds up the update and iteration, and new contradictions will appear within the enterprise. For example, some senior executives of the company have fixed thinking, which makes it difficult to understand the role of digital development strategy in promoting enterprise growth, the lack of backbone employees with the concept of Internet digitization in the enterprise, and the single business model is difficult to support the daily operation of the enterprise. On this basis, enterprises should improve their original development strategies. Enterprises take organizational structure reform as the starting point to alleviate departmental conflicts and establish appropriate systems. Enterprises focus on attracting or cultivating digital professionals to promote the development of both "new" and "old" talents and facilitate efficient and healthy transformation processes. Enterprises attach great importance to technological innovation by embracing digitization and intelligence to enhance their internal innovation capabilities. Explore new technologies during the research and development process, and integrate high-end foreign R&D technologies with domestic consumer usage needs.

At the stage of unified development, the focus is on building competitive advantages. Influenced by the trend of "Industry 4.0" and "Internet plus", many enterprises have introduced ERP systems and tried to use ERP to comprehensively integrate corporate resources such as sales, production, human resources, and finance, to achieve the best combination of resources and achieve the highest benefits. With the optimization of the production management process and the establishment of a localized

service system, mobile informatization under the mobile Internet has become a new trend. The diversification and personalization of user needs are constantly increasing. How to meet the growth of customer needs, improve customer satisfaction, and obtain more customer traffic is a problem that enterprises should pay attention to at this stage.

3.2. Path Analysis of Digital Transformation

Under the diverse need of market, the basic objective of digital transformation is to optimally restructure the value system. Its essence is to put customer needs first, to drive enterprise transformation. Digital transformation is a comprehensive and multi-level transformation, including management mode, operation mode, and business mode. The path of digital transformation for the specialized and innovative "little giant" is mainly reflected in two aspects: infrastructure construction and business processes.

One character infrastructure construction is a prerequisite for enterprise digital transformation. Enterprises need to establish a stable and efficient network environment, including data centers, cloud computing platforms, and big data analysis systems, to support digital operations. Enterprises should enhance their digital capabilities by improving the interaction between physical entities and the digital virtual world, to achieve transformation of digit, promote the development of the real economy, and improve their competitiveness [3]. In the process of digital transformation, it is necessary to effectively solve the dilemma of technology and integration, establish a good digital transformation environment on this basis, and achieve internal integration, industrial chain integration, and industry integration. It is also necessary to accelerate the improvement of the quality of digital personnel and appropriately cultivate and introduce talents with data analysis, software development, and system management capabilities [4].

Digitalization of workflow is the core of enterprise digital transformation. Enterprises use digital tools to analyze and optimize existing business processes, eliminate redundant links, and improve process efficiency [5]. Enterprises utilize technologies such as RPA and AI to automate business processes, reduce manual operations, and lower error rates. In addition, replacing paper and manual processes with software enables enterprises to automatically collect data that can be mined to better understand process performance, cost drivers, and risk reasons.

4. Conclusion

In the process of developing a medium-sized manufacturing enterprise into a specialized, refined, and innovative "little giant" enterprise, the enterprise should actively embrace the digital economy to promote the process of digital transformation. The three factors of efficiency change, innovation drive, and value co-creation promote each other and strive to build and improve the digital transformation path.

Firstly, enterprises need to do a good job in overall planning, build digital dynamic capabilities from multiple aspects in a timely and appropriate manner, promote efficiency changes, and improve the profitability of the enterprise. Small and medium-sized manufacturing enterprises should first do a good job in overall digital planning, clarify the purpose, goals, key areas, specific steps, time coordination, and resource arrangement of transformation, plan a comprehensive digital strategy blueprint, and provide guidance and support for digital transformation. Secondly, enterprises should actively respond to external environmental changes, promote technological innovation, breakthrough development bottlenecks, and explore models that are in line with the direction of digital transformation. Small and medium-sized manufacturing enterprises should promote technological innovation, talent introduction, and training, and form their competitive advantages based on their economic strength and risk management capabilities. Thirdly, enterprises should promote value co-creation, build an ecosystem for enterprise development, coordinate the three elements, and promote sustainable development of enterprises. Enterprises must create a good internal corporate atmosphere

and an external cluster culture, so that employees can strive for the same goal, and companies can work together and grow together.

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