

# Research on the Digital Transformation of Small and Medium-Sized Enterprises in the Context of the Epidemic

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**Abstract:** With the rapid development of Internet big data and intelligence, the digital transformation and upgrading of China's industries has been promoted. However, under the influence of COVID-19 in 2020, China's economy has been severely impacted, and the production of small and medium-sized enterprises has been affected, forcing small and medium-sized enterprises to transform. This paper first analyzes the development status of small and medium-sized enterprises, and then find out the characteristics of successful digital transformation enterprises. Subsequently, the path of digital transformation of small and medium-sized enterprises is studied, mainly from four aspects: enterprise innovation, production link, enterprise cooperation and customer maintenance, and find the path in line with the digital transformation of small and medium-sized enterprises in China. Finally, Z company has the characteristics of technology innovation, build online platform, conform to the characteristics of digital transformation of small and medium-sized enterprises, therefore, Z company for example to the innovation of digital transformation, production, enterprise cooperation and customer maintenance four path, the digital transformation of small and medium-sized enterprises in China and economic development has certain reference value.

**Keywords:** Small and Medium-Sized Enterprises; Digital Transformation; The Epidemic Era

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## 1. Introduction

The rapid spread of COVID-19 around the world has reduced the growth rate of GDP and affected the high-quality development of our economy. Due to the weak ability of small and medium-sized enterprises to resist risks, the prevention mechanism in the face of emergencies is not perfect, and enterprises present a series of problems such as lack of talent and weak foundation of transformation technology. Therefore, most small and medium-sized enterprises try to use the advantages of digital technology to explore new models of corporate business development. There are two reasons for the digital transformation of enterprises: on the one hand, the expanding scale of Internet enterprises can upgrade, optimize and develop rapidly with digital technology; on the other hand, the revenue of traditional enterprises decreases year by year, the profitability is declining, and the enterprise development becomes more and more difficult, so the digital transformation can seek better development and gradually become a common choice for enterprises to survive.

## 2. Research on the status quo of digital transformation of small and medium-sized enterprises

### 2.1 Development of digital transformation of small and medium-sized enterprises in China

Under the influence of COVID-19, the development of small and medium-sized enterprises is slow. In order to ensure the stability of the development of small and medium-sized enterprises, it is necessary to use digital means to continuously explore the road of digital transformation suitable for the development of enterprises. The digital transformation of enterprises is divided into three stages:

exploration stage, practice stage and deep application stage.

## **2.2 Industry distribution of digital transformation of small and medium-sized enterprises in China**

China has a large number of small and medium-sized enterprises, a wide distribution of industries, is an important pillar of China's economic development. According to the report on the impact of the development of small and medium-sized enterprises under the epidemic, small and medium-sized enterprises account for 55.34 percent of China, mainly involving service education and finance industries. Compared with other large-scale enterprises, small and medium-sized enterprises have the largest number and the most extensive distribution, and have become an important basic force for China's economic development.

## **2.3 Methods of digital transformation of Small and medium-sized enterprises in China**

Some small and medium-sized enterprises are transforming to online platforms such as e-commerce. According to data statistics, in the first four months of 2021, China's import and export increased by 28.5% year on year, mainly due to the rapid growth of the export of food, clothing and other commodities. In April of the same year, the export value of toys was 19.59 billion yuan, and the cumulative export from January to April was 68.72 billion yuan, with a year-on-year growth of 59.0% year on year. According to the investigation of relevant departments, it is found that during the epidemic period, China's raw materials rose rapidly, sales channels were limited, and labor costs were high. The establishment of the e-commerce platform makes the import and export trade represented by toy enterprises develop rapidly. These industries not only survive, but also drive the continuous development of other industries related to the industry. During the epidemic period, we investigated and studied the development of entertainment enterprises, and found that the export of China's game consoles has developed better compared with last year. People are isolated at home, and the demand for entertainment products such as game consoles is large. All kinds of entertainment products are very popular, and in some foreign regions, the demand exceeds supply.

## **2.4 Characteristics of small and medium-sized enterprises with successful transformation**

High level of technological innovation. The development of any enterprise needs technology as a support, and good technology will promote the rapid development of enterprises. In China, although there are many small and medium-sized enterprises in digital transformation, the industry distribution is concentrated and the competition pressure is great. Only by constantly developing new technologies and developing new products can enterprises meet the demand of the market and promote the smooth transformation of enterprises.

## **3. The path of digital transformation of small and medium-sized enterprises**

Formulate an overall strategic plan and implement the digital transformation step by step. Enterprises should make clear the development direction of digital transformation, formulate the development goals of enterprise digital transformation, understand the characteristics of digital enterprises, and integrate them into the digital transformation of enterprises. The transformation and upgrading of digital enterprises in innovation, production, cooperative relationship and customer maintenance are mainly reflected in the streamlining process and optimization of product structure, reducing cost and obtaining profits; the production link is changed from traditional timely production to instant production, which reduces the cost of circulation of each product and promotes the development of the enterprise; it shares information resources with the enterprise to improve the production efficiency; maintaining customers to meet the personalized needs of consumers and improve the industry competitiveness of the enterprise. Enterprises should formulate an overall strategic plan and implement their digital transformation step by step.

### **3.1 Promote the digital innovation of products**

Innovation is the development trend of China, and the development of small and medium-sized enterprises needs independent innovation. First of all, small and medium-sized enterprises can apply information technology to constantly adjust the characteristics of

their products, streamline the production process, improve the product structure, and constantly increase the added value of their products. The enterprise has changed from the traditional artificial or mechanical production to the intelligent production, simplifying the production process and completing the production tasks efficiently. At the same time, small and medium-sized enterprises should collect targeted data, carefully analyze the positioning of enterprises, deeply explore the potential needs of existing consumers, and produce personalized and different products, to meet the personalized needs and potential needs of consumers. Enterprise targeted product innovation, will open up a new consumer market, promote the development of enterprises.

### **3.2 Streamline production links**

Streamlining production by enterprises can reduce the waste of resources, reduce the production and operation costs of enterprises, and improve the profitability of small and medium-sized enterprises. At the present stage, small and medium-sized enterprises change the timely production in production into instant production, and immediately conduct digital production when customers place orders. The manufacturer directly sends the finished products to customers, which reduces the circulation of products among various departments, reduces the production cost, and realizes the zero inventory of instant production. Compared with the tedious production process of traditional enterprises, streamlining the production link can remove the redundant process of the production link and reduce the unnecessary costs in each link.

## **4. Case analysis of digital transformation**

### **4.1 Z Corporate background of Company**

Z Company was founded in 2013. Before the digital transformation, Z company was mainly the import and export of machinery components. After 2018, it began to make a transformation on the basis of the original machinery import and export trade, and created a new brand in the field of smart home, and founded a new Z company in 2019. In 2020, the number of companies in the smart home industry will increase sharply. In order to improve the competitiveness of the company, Z Company has introduced advanced digital technology and digital team, and focused on building its own brand (Q brand). At the same time, Z company cooperates with other large-scale smart home enterprises, so that Z company can only be responsible for solving the smart home problems, and the product production is completed by the partners. In this way, Z has completed the operation mode of combining online platform and offline mall.

### **4.2 Z company's motivation for digital transformation**

The first digital transformation of an enterprise is an external motive. Under the pressure of the market, the enterprise has to combine its own business experience to carry out technological innovation, use digital technology to develop new products, and carry out new business models to ensure the survival and development of the enterprise.

The second digital transformation is the internal motivation of the enterprise. On the basis of the original development, the enterprise carries out the digital upgrade in order to obtain higher profits. Using the integrated online and offline business model to replace the original traditional offline operation can enable enterprises to occupy more market share in the development of the same industry, so as to obtain corresponding profits.

## **5. Suggestions for the digital transformation of small and medium-sized enterprises**

### **5.1 National and governmental aspects**

The state should support financial institutions to provide lending and financing services to small and medium-sized enterprises to fundamentally solve the problem of insufficient funds. The government can carry out the pilot project of Internet equity-based crowdfunding, enhance the service ability of crowdfunding to serve mass innovation and entrepreneurship, standardize and develop regional equity markets serving small and micro enterprises, and promote the financing of technology start-ups. In addition, the government should vigorously develop special funds to provide special subsidies for the business development and business innovation, so as to improve the enthusiasm of employees and ensure the stable development of the company.

## 5.2 The aspects of the enterprise itself

Digital platform is a new form of production organization based on innovation, which will promote the rapid economic growth. On the one hand, the platform construction is reflected in the combination of digital platform and traditional production equipment, and on the other hand, it is reflected in the application of digital technology in the production process of enterprises, so as to realize the sharing of basic technical resources and information, and enhance the competitiveness of enterprises through the continuous innovation of technology and business model.

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