

# Current Status and Trends of Digital Transformation of Small and Medium-Sized Enterprises

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**Abstract:** This paper aims to explore the current status and trends of digital transformation of small and medium-sized enterprises, analyze the impact of digital transformation on small and medium-sized enterprises, and propose strategies and suggestions for the digital transformation of small and medium-sized enterprises. This article first introduces the background and purpose of digital transformation of small and medium-sized enterprises, and then analyzes the current status and trends of digital transformation of small and medium-sized enterprises, as well as the impact of digital transformation on small and medium-sized enterprises. It is hoped that this paper can provide reference for the digital transformation of small and medium-sized enterprises, promote the in-depth development of digital transformation of small and medium-sized enterprises, and promote the high-quality development of small and medium-sized enterprises.

**Keywords:** Enterprise, Digital Transformation, Business Process

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## 1 Introduction

Small and medium-sized enterprises are an important part of the real economy and are also the focus and difficulty of industrial digital transformation. Currently, the digital transformation of the world economy has become a general trend. According to statistics, the current application rate of digital equipment in small and medium-sized enterprises is only 45%, the digital coverage rate of production processes is only 40%, and the equipment networking rate is only 35%. The intelligent investment of small and medium-sized enterprises is obviously insufficient compared with large enterprises. Digital transformation is one of the important trends that have emerged in the past few years. The importance of digital transformation in achieving sustainable growth and innovation, improving operational efficiency and productivity, and generating new business models and revenue sources has accelerated.

This paper aims to explore the current status and trends of digital transformation of small and medium-sized enterprises, analyze the impact of digital transformation on small and medium-sized enterprises, and propose strategies and suggestions for the digital transformation of small and medium-sized enterprises, in order to provide reference for the digital transformation of small and medium-sized enterprises.

## 2 Current Status of Digital Transformation of Small and Medium-Sized Enterprises

Digital transformation refers to the use of digital technology and digital thinking by enterprises to comprehensively upgrade and optimize business processes, organizational structures, corporate culture, etc., in order to improve the efficiency, innovation capabilities and competitiveness of enterprises.

### 2.1 Current Status of Digital Transformation of Small and Medium-Sized Enterprises

At present, the digital transformation of small and medium-sized enterprises has become an important means to enhance the competitiveness of enterprises. According to the "Guidelines for Digital Transformation of Small and Medium-sized Enterprises"<sup>1</sup>, digital transformation has become an inevitable trend in the development of small and medium-sized enterprises. However, digital transformation still faces some challenges, such as limitations in capital, talent, technology, and cognition, as well as unclear paths for digital transformation.

### 2.2 Challenges of Digital Transformation of Small and Medium-Sized Enterprises

Challenges faced by SMEs in digital transformation include:

Funding issues: Digital transformation requires a large amount of capital investment, and small and medium-sized enterprises have relatively limited funds;

Talent issues: Digital transformation requires talents with relevant skills, but small and medium-sized enterprises generally lack such talents;

Technical issues: Digital transformation requires the use of advanced technologies, but small and medium-sized enterprises generally have low technical levels;

Cognitive issues: Small and medium-sized enterprises have insufficient understanding of digital transformation and lack of awareness and concepts of digital transformation;

Path problem: The path to digital transformation is unclear, and small and medium-sized enterprises don't know where to start.

### 3 Trends in Digital Transformation of Small and Medium-Sized Enterprises

Digital transformation is the current and future trend, and small and medium-sized enterprises are no exception.

#### 3.1 Trend of Digital Transformation

Digital transformation is an important means for enterprises to improve efficiency, innovation capabilities and competitiveness. The trends of digital transformation include: intelligence, automation, data, platform, ecology, etc. The core of digital transformation is to open up the enterprise data chain, guide the circulation and sharing of data throughout the entire production process, business links, and process cycles of the enterprise, and use data flow to drive technology flow, material flow, capital flow, and talent flow, thereby promoting enterprise business innovation and Model change.

#### 3.2 Trends in Digital Transformation of Small and Medium-Sized Enterprises

Trends in digital transformation of small and medium-sized enterprises include: acceleration of digital transformation, popularization of digital transformation, upgrading of digital transformation, and ecologicalization of digital transformation. The acceleration of digital transformation refers to the accelerated pace of digital transformation of small and medium-sized enterprises, the popularity of digital transformation refers to the continuous expansion of the application scope of digital transformation of small and medium-sized enterprises, and the upgrading of digital transformation refers to the continuous improvement of the depth and breadth of digital transformation of small and medium-sized enterprises. Ecologicalization refers to the continuous improvement of the ecosystem for digital transformation of small and medium-sized enterprises.

### 3.3 The Future of Digital Transformation of Small and Medium-Sized Enterprises

The future of digital transformation of small and medium-sized enterprises is the comprehensive popularization and in-depth application of digital transformation. Digital transformation will become an important means for small and medium-sized enterprises to improve efficiency, innovation capabilities and competitiveness. Digital transformation will promote the transformation of small and medium-sized enterprises in the direction of intelligence, automation, data, platform and ecology, achieve comprehensive upgrade and optimization of digital transformation, and improve the efficiency, innovation ability and competitiveness of enterprises.

### 4 Policy Recommendations for Digital Transformation of Small and Medium-Sized Enterprises

Policy support for the digital transformation of small and medium-sized enterprises is an important guarantee for the digital transformation of small and medium-sized enterprises. The following are some policy support measures:

Financial subsidies: The government can encourage small and medium-sized enterprises to carry out digital transformation through financial subsidies and other methods. For example, the government can provide certain financial subsidies for small and medium-sized enterprises to purchase digital equipment and software.

Tax incentives: The government can encourage small and medium-sized enterprises to carry out digital transformation through tax incentives and other means. For example, the government can provide certain tax incentives for small and medium-sized enterprises to purchase digital equipment and software.

Financial support: The government can encourage small and medium-sized enterprises to carry out digital transformation through financial support and other means. For example, the government can provide low-interest loans to SMEs to support their digital transformation.

Policy guidance: The government can encourage small and medium-sized enterprises to carry out digital transformation through policy guidance and other methods. For example, the government can introduce relevant policies to guide small and medium-sized enterprises to carry out digital transformation.

Talent training: The government can encourage small and medium-sized enterprises to carry out digital transformation through talent training and other methods. For example, the government can provide digital transformation-related talent training for small and medium-sized enterprises to improve their digital transformation

capabilities.

## 5 Conclusion

This paper aims to explore the current status and trends of digital transformation of small and medium-sized enterprises, analyze the impact of digital transformation on small and medium-sized enterprises, and propose strategies and suggestions for the digital transformation of small and medium-sized enterprises. By analyzing the current status and trends of digital transformation of small and medium-sized enterprises, we found that the digital transformation of small and medium-sized enterprises has become an important means to enhance the competitiveness of enterprises. The impact of digital transformation on small and medium-sized enterprises is mainly reflected in improving efficiency, innovation capabilities and competitiveness. The challenges faced by the digital transformation of small and medium-sized enterprises include limitations in capital, talent, technology, cognition, etc., as well as unclear paths for digital transformation. The trends in digital transformation of small and medium-sized enterprises include the acceleration of digital transformation, the popularity of digital transformation, the upgrading of digital transformation, and the ecologicalization of digital transformation. Policy support for the digital transformation of small and medium-sized enterprises is an important guarantee for the digital transformation of small and medium-sized enterprises. The government can encourage small and medium-sized enterprises to carry out digital transformation through financial subsidies, tax incentives, financial support, policy guidance, talent training, etc.

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## Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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## Author Contributions

Not applicable.

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## References

- [1] Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital transformation: An overview of the current state of the art of research. *Sage Open*, 11(3), 21582440211047576.

- [2] Zaoui, F., & Souissi, N. (2020). Roadmap for digital transformation: A literature review. *Procedia Computer Science*, 175, 621-628.
- [3] Majchrzak, A., Markus, M. L., & Wareham, J. (2016). Designing for digital transformation. *MIS quarterly*, 40(2), 267-278.