



# Research on the Impact of Digital Transformation on the Performance of Small and Medium-Sized Enterprises - Based on the Perspective of Profitability

Rongguang Yu, Guifang Fu\*

Department of Applied Psychology, School of Public Administration, Guangdong University of Foreign Studies, Guangzhou, Canton, China

\*Corresponding Author: Guifang Fu, Department of Applied Psychology, School of Public Administration, Guangdong University of Foreign Studies, Guangzhou, Canton, China

**Abstract:** This study aims to explore the impact of digital transformation on the performance of small and medium-sized enterprises (SMEs), focusing on profitability. By selecting financial data from listed SMEs between 2011 and 2021, this study uses Return on Equity (ROE) lagged as the measurement indicator for profitability and constructs a baseline regression model incorporating the degree of digital transformation and ROE. Additionally, to deeply analyze the transmission mechanism of digital transformation's effects, this study includes the financial condition of the enterprise (i.e., whether the company is in a loss position) as a moderating variable in the empirical model. The empirical results show that digital transformation significantly enhances the profitability of SMEs, with this effect being sustained over time. Furthermore, for companies facing financial losses, digital transformation may provide an effective path to improving their financial performance. This research provides empirical support for the strategic planning and resource allocation of SMEs in the digital age and contributes to promoting sustainable development for both enterprises and the social economy.

**Keywords:** Small and Medium-Sized Enterprises, Digital Transformation Degree, Moderating Effect.

## 1. INTRODUCTION

In the current context of a reshaped global economic landscape and accelerating diffusion of digital technologies, the digital economy has become a core engine driving China's high-quality development and the construction of a modern economic system. Chinese leader Xi Jinping has explicitly directed to "continuously strengthen, refine, and expand China's digital economy," elevating digital transformation to a national strategic priority.

As an important component of the national economy and a major source of innovative vitality, the survival and development of SMEs are directly related to the optimization of economic structure and social stability. Faced with rapid changes in information technology and the Internet, SMEs must undergo digital transformation; this is not only their means of adapting to market demands and improving management efficiency, but also a key strategic choice for reshaping core competitiveness and achieving sustainable profit growth in intense market competition. However, compared to large enterprises, SMEs generally have limited resource endowments and transformation capabilities, leading to significant differences in their digital transformation processes and ultimate economic outcomes. This makes it of great practical importance and urgency to explore the pathways of digital transformation in SMEs and its ultimate impact on firm performance.

Profitability (e.g., ROE) is a core indicator for measuring a firm's value creation and operational efficiency, and it has long been a focal point of academic research. The relationship between firm performance and profitability has been a central topic in management and strategic studies. Profitability is often viewed as a key indicator of a firm's financial soundness; in contrast, performance is a broader concept that encompasses not only financial results but also non-financial dimensions such as operational efficiency and market share. Existing literature has extensively explored the positive impact of digital transformation on the performance of large enterprises, using theoretical frameworks based on the resource-based view and dynamic capabilities. However, research focusing on SMEs—taking into account their life cycle and resource constraints—and systematically examining the impact of digital transformation on their profitability still has significant gaps. First, existing studies have

inadequately considered the heterogeneity of SMEs in terms of resources, talent, and capital, limiting the generalizability of the findings. Second, few studies have examined the time-lag effects (immediate versus long-term effects) and sequencing effects (early versus late transformation) of digital transformation on SMEs' profitability, making it difficult to guide SMEs in formulating effective strategic plans. Therefore, this paper aims to fill these gaps by focusing on SMEs and using profitability as the core indicator, in order to investigate the mechanisms and outcomes of digital transformation, with particular emphasis on the key role of transformation timing.

## **2. THEORETICAL ANALYSIS AND RESEARCH HYPOTHESES**

### **2.1. Main Effect of Digital Transformation on Sme Profitability**

Faced with the challenges of the digital economy era and the pursuit of high-quality development, digital transformation has become an inevitable strategic decision for enterprises. It essentially involves a systematic restructuring of business models, operational processes, organizational structures, and even cultural concepts. As active components of the economic system, the transformation outcomes of SMEs directly determine their market competitiveness and long-term viability. Theoretically, digital transformation empowers firms to enhance their core elements, thereby achieving sustained growth in profitability.

Specifically, digital transformation can significantly optimize a firm's resource allocation and operational efficiency. Li (2022) emphasizes that digital transformation promotes managerial innovation by optimizing resource allocation and improving organizational efficiency, which in turn has a positive impact on firm performance. Liu et al. (2022) further point out that digital transformation can increase production efficiency, improve distribution channels, and significantly reduce transaction costs, bringing direct economic benefits to firms. Zhou and Guo (2023) confirm this point, indicating that digital technologies can significantly improve firms' profitability by raising production efficiency and lowering firms' external transaction costs. Yao and Xia (2022) conducted an empirical analysis of Chinese listed companies that verified the positive association between digital transformation and firm performance, emphasizing its importance in enhancing firms' market competitiveness and profitability.

Second, digital transformation can enhance firms' innovation capabilities and information transparency. Zhang et al. (2024) reveal that digital transformation significantly increases firms' earnings persistence by curbing real earnings management, improving information transparency, and mitigating financing constraints, thus laying the foundation for long-term profitability. Jiang (2021) focuses on supply chain management and notes that transformation, by optimizing information flow and data management, improves supply chain efficiency and responsiveness, thereby enhancing the firm's overall economic performance. Although Qi and Cai (2020) point out that SMEs have disadvantages in accessing key resources and strategic positioning, and Qiu and Xu (2022) mention their relative lack of technology adoption capabilities, in the long run digital transformation can gradually build dynamic capabilities and ambidextrous innovation capabilities while effectively reducing operating costs (Bai and Liu, 2022). The cumulative effects of these mechanisms (Ye, 2023) will more than offset the initial capital investments and potential risks of transformation. With the persistence and deepening of transformation effects, SMEs will be able to form stable competitive advantages and achieve sustained growth in profitability. Therefore, this paper argues that the continuity and depth of digital transformation are key factors influencing a firm's profitability.

Based on the above theoretical analysis and existing literature, we propose the following hypothesis:

**Hypothesis 1:** The continuity (persistence) of digital transformation has a significant positive effect on the long-term growth of SME profitability.

### **2.2. Moderating Effect of Loss Status**

In examining the impact of digital transformation on SME profitability, a firm's financial status, especially whether it is loss-making, is an essential moderating factor. According to the resource-based view, a firm's resources and capabilities are key to gaining competitive advantage, and financial health is the fundamental guarantee of its ability to acquire and allocate resources. When a firm is facing losses, its resource allocation and investment decisions tend to become more cautious and conservative. This conservative stance arises mainly from concerns about immediate cash flow, reduced risk tolerance, and

uncertainty about future performance, which together suppress a firm's willingness and actual ability to invest in digital transformation, a high-capital long-term strategic initiative.

Specifically, SMEs in a loss-making state often prioritize cost cutting and risk avoidance rather than allocating their limited funds to digital transformation projects with long-term payoffs. Although digital transformation can enhance efficiency in the long run, its high initial investment and potential failure risk pose a huge burden for financially constrained loss-making firms. Therefore, a loss-making status plays a suppressive role in the positive relationship between digital transformation and profitability, making it difficult for the transformation's effects to be fully realized.

Based on the above analysis, we propose the following hypothesis:

**Hypothesis 2:** A firm's loss-making status significantly moderates the relationship between the degree of digital transformation and SME profitability. Specifically, in loss-making firms, the profitability-enhancing effect of digital transformation is significantly weaker.

### **3. RESEARCH DESIGN**

#### **3.1. Sample Selection and Data Sources**

The classification of SMEs typically relies on quantitative metrics such as firm size, financial status, and market influence. In Europe, enterprise size classification includes factors like the number of employees, annual revenue, total assets, and equity structure, forming a comprehensive assessment system. For example, based on the number of employees, a firm is classified as large, medium, or small, and these categories are further refined by annual revenue and asset size. In Japan, the definition of SMEs adopts a more flexible composite standard, which considers both the number of employees and the asset size, allowing firms to choose the applicable criteria based on their own circumstances.

In this paper, we reference the "Regulations for the Classification Standards of Small, Medium, and Micro Enterprises" jointly issued by multiple national ministries in 2011. This regulation, considering each industry's actual development and characteristics, defines different quantitative standards based on the number of employees, business income, and total assets, including categories for medium, small, and micro enterprises. In this study, medium, small, and micro enterprises are collectively referred to as SMEs. Based on this definition, we selected 872 listed SMEs from 2011 to 2021 as the sample. The sample was screened as follows: (1) excluding companies in the financial and insurance sectors; (2) excluding companies labeled ST, \*ST, PT, etc.; (3) excluding firms with missing data. To mitigate the effect of outliers, continuous variables were winsorized at the 1% level. Ultimately, we obtained 7,417 firm-year observations. All data used in this study are sourced from the CSMAR database, and data processing was conducted using Stata 16.0.

#### **3.2. Variable Design**

The variables in this study include return on equity, the degree of digital transformation, and whether the firm is loss-making. Among these, return on equity (ROE) is the dependent variable, the degree of digital transformation (Dig) is the independent variable, and loss-making status (Loss) is the moderating variable. The main variables and their measurement are outlined in Table 1.

Digital transformation refers to the reshaping of an organization's or firm's business model, processes, culture, and value creation approach using digital and information technologies to adapt to the rapidly changing digital economy era. Scholars have proposed different perspectives on this concept. For example, Gong and Ribiere (2021) suggest that digital transformation involves firms using innovative digital technologies to drive the enhancement of key resources and capabilities, with the aim of fundamentally reshaping the firm's value creation model. Gregory (2019) defines it as the firm's reinvention of core activities—including R&D, production, and organizational management—through the integrated application of digital technologies to innovate its value creation process. In this study, the degree of digital transformation is defined by the natural logarithm of the number of digital-related technology keywords appearing in annual reports (such as "big data," "artificial intelligence," "mobile internet," "cloud computing," "Internet of Things," and "blockchain"). A larger value of this index indicates a higher degree of digital transformation.

There are various indicators for measuring a firm's profitability, and no single standard is universally accepted. Sun (2011) suggests that the profitability of listed companies can be analyzed through various

profitability ratios, such as the cost-profit margin and the sales profit margin. Shao and Jiang (2019) indicate that factors affecting the profitability of listed manufacturing firms include total asset turnover, sustainable growth rate, and the shareholding ratio of the largest shareholder. In this study, we choose ROE (return on equity) as the measure of profitability. The persistence of profitability is measured using a linear first-order autoregressive model. Given that a firm’s financial status (especially whether it is loss-making) is an important factor affecting its strategic decisions and resource allocation, we include the loss-making status as the moderating variable.

**Table 1.** Main variables and measurement

Main variable	Measurement	
ROE <sub>i,t+1</sub>	Return on equity at time t+1, calculated as net profit of firm <i>i</i> in period t+1 divided by average shareholders’ equity.	
ROE <sub>i,t</sub>	Return on equity at time t, calculated as net profit of firm <i>i</i> in period t divided by average shareholders’ equity.	
Dig	Digital transformation degree, measured as ln(Frequency of digital-related keywords in annual report + 1).	
Loss	Loss indicator: whether net profit in the current year is positive (0 or 1).	
Control Variables	Liquid	Current Ratio=Current Asset/ Current Liabilities.
	Lev	Debt Ratio = Total Liabilities / Total Assets.
	Intangible	Intangible Asset Ratio = Intangible Assets / Total Assets.
	Board	Board Size: natural logarithm of the number of board members.
	Mfee	Management Expense Ratio = Management Expenses / Total Assets.

### 3.3. Model Design

To test Hypotheses 1 and 2, we specify the following model (time subscripts omitted for brevity):

$$ROE_{i,t+1} = \beta_0 + \beta_1 \cdot DIG + \beta_2 \cdot ROE_{i,t} + \beta_3 \cdot (ROE_{i,t} \times DIG) + \beta_4 \cdot LOSS + \beta_5 \cdot Liquid + \beta_6 \cdot LEV + \beta_7 \cdot Intangible + \beta_8 \cdot Board + \beta_9 \cdot Mfee + \epsilon_{i,t} \quad (1)$$

$$ROE_{i,t} = \beta_0 + \beta_1 \cdot DIG + \beta_2 \cdot (DIG_{i,t} \cdot LOSS_{i,t}) + \beta_3 \cdot Liquid + \beta_4 \cdot LEV + \beta_5 \cdot Intangible + \beta_6 \cdot Board + \beta_7 \cdot Mfee + \epsilon_{i,t} \quad (2)$$

where  $ROE_{i,t+1}$  denotes firm *i*’s ROE in year t+1, calculated as net profit in year t+1 divided by average shareholders’ equity. The larger this value, the stronger the firm’s profitability.  $Dig_{i,t}$  represents the degree of digital transformation, measured by the natural logarithm of the frequency of digital-related technology keywords in the annual report. A larger value indicates a higher degree of digital transformation. Based on Hypothesis 1, we expect  $\alpha_2$  to be significantly positive, indicating that the degree of digital transformation has a significant positive effect on a firm’s profitability.  $Loss_{i,t}$  is a dummy variable indicating whether the firm is loss-making in year t ( $Loss = 1$  if net profit is non-positive, 0 otherwise). After including the interaction term  $ROE_{i,t} \times Dig_{i,t}$ , we expect the coefficient  $\alpha_4$  to be significantly positive, meaning that digital transformation has a significant positive impact on the firm’s long-term profitability. We include a set of control variables to ensure the comprehensiveness and accuracy of the analysis. These control variables include the debt ratio (Lev), liquidity ratio (Liquid), cash flow (Cashflow), intangible asset ratio (Intangible), board size (Board), and management expense ratio (Mfee).

## 4. EMPIRICAL ANALYSIS

### 4.1. Descriptive Statistics

We conducted a detailed descriptive statistical analysis of the financial data for the 872 listed SMEs from 2011 to 2021. As shown in Table 2, the core variables have the following statistics: the mean of ROE is 0.0686 with a standard deviation of 0.1265, revealing not only the volatility of SMEs’ profitability but also significant differences in profitability levels across firms. The digital transformation index  $Dig$  has a mean of 1.538 and a standard deviation of 0.813. This distribution suggests that although SMEs generally recognize the importance of digital transformation, there is substantial heterogeneity in transformation progress and outcomes among firms. The loss dummy has a mean of 0.085 with a standard deviation of 0.279, indicating that while most SMEs remain profitable, some firms are in financial distress, which may be closely related to the progress and effectiveness of their digital transformation.

**Table 2.** Descriptive statistics of main variables

Main Variable	Mean	Std. Dev.	Min	Max
ROE	0.0686	0.1265	-0.9257	0.4072
Dig	1.538	0.813	0.693	5.913
Loss	0.085	0.279	0	1
Liquid	2.806	2.806	0.268	29.916
lev	1	0.195	0.032	0.908
Cashflow	0.046	0.065	-0.199	0.256
Intangible	0.040	0.044	0	0.343
Board	2.103	0.199	1.609	2.708
Mfee	0.094	0.075	0.007	0.641

## 4.2. Correlation Analysis

We performed a detailed correlation analysis of the financial and operational variables for SMEs to explore their interrelationships and impacts on profitability. The results reveal several key findings: there is a statistically significant positive correlation between the degree of digital transformation (*Dig*) and ROE, suggesting that digital transformation may help enhance firms' profitability. This finding is important for understanding how SMEs can leverage digital technologies to strengthen their market competitiveness and profitability. Meanwhile, the liquidity ratio (*Liquid*) is positively correlated with ROE and the debt ratio (*Lev*) is negatively correlated with ROE, further emphasizing the key supporting role of a sound financial structure in maintaining and enhancing profitability. Adequate liquidity is fundamental for daily operations, while an appropriate level of debt helps control financial risk, and both factors jointly influence overall profitability performance. In addition, the positive relationship between cash flow (*Cashflow*) and ROE underscores the core role of cash flow in profitability, as it ensures firms' short-term funding needs and provides stable capital for long-term development. All these correlation coefficients are below 0.5, indicating that there is no severe multicollinearity problem among the main variables, which provides a solid foundation for subsequent regression analysis.

**Table 3.** Correlation matrix of variables

Variable	ROE	Dig	Loss	Liquid	Lev	Cashflow	Intangible	Board
ROE	1							
Dig	0.0410***	1						
Loss	0.6934***	0.0352***	1					
Liquid	0.0705***	-0.0125*	0.0903***	1				
Lev	0.1662***	-0.0073	0.1681***	0.6672***	1			
Cashflow	0.3267***	0.0617***	0.1882***	0.0326***	0.1456***	1		
Intangible	0.0621***	0.0372**	0.0483***	0.1328***	0.0663***	0.0653***	1	
Board	0.0306**	0.0608***	0.0258***	0.1282***	0.1617***	0.0176	0.0609***	1

\*Note: \*\*\*, \*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

## 4.3. Regression Analysis

### 4.3.1. Digital Transformation and Profitability

The regression results are presented in Table 4. These results support Hypothesis 1: the degree of digital transformation (*Dig*) has a significant positive effect on SME profitability (ROE). In the first regression (Model 1), we control for firm size, financial leverage (*Lev*), cash flow, intangible assets (*Intangible*), board size, and management expenses (*Mfee*). The coefficient on the interaction term  $ROE_{i,t} \times Dig_{i,t}$  is 0.00575 and is statistically significant at the 1% level ( $p < 0.01$ ), indicating a strong positive relationship between the degree of digital transformation and profitability.

To ensure robustness, the second regression (Model 2) additionally controls for year fixed effects. The interaction term's coefficient remains positive at 0.00601 and is significant at the 5% level, further confirming the positive impact of digital transformation on profitability. The coefficients of the control variables are consistent with expectations; for example, cash flow has a significantly positive effect and the debt ratio (*Lev*) has a significantly negative effect on profitability, both statistically significant.

In summary, the results of both regressions suggest that an increase in the degree of digital transformation contributes to enhancing SMEs' profitability. This finding is important for understanding

SME strategic planning in the digital era. Firms should recognize the importance of digital transformation and regard it as a key strategy for improving competitiveness and profitability.

**Table 4.** Digital transformation and SME profitability persistence

VARIABLES	ROEt+1	ROEt+1
ROE <sub>i,t</sub> ×DIG	0.00575***	0.00601**
	(0.34)	(0.36)
ROE	0.337***	0.325***
	(26.75)	(11.72)
Dig	0.0064***	0.0057**
	(3.52)	(2.61)
Liquid	0.00126	0.00126
	(1.29)	(1.29)
Lev	-0.0307**	-0.0308**
	(-2.78)	(-2.79)
Cashflow	0.148***	0.147***
	(5.89)	(5.83)
Intangible	-0.146***	-0.146***
	(-4.35)	(-4.34)
Year	—	Control
Constant	0.0349*	0.0359*
	(1.96)	(2.01)
Observations	4412	4412
F	157.57	140.07

\*Note: \*\*\*, \*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

#### 4.3.2. Moderating Effect of Loss Status

Table 5 examines the moderating effect of a firm’s loss-making status on the relationship between digital transformation (*Dig*) and ROE. The coefficient for the loss dummy is significantly negative in both models, indicating that loss-making firms have lower ROE compared to non-loss-making firms. This result is especially pronounced in Model (1) ( $t = -70.89$ ) and remains highly significant in Model (2) ( $t = -36.35$ ), highlighting the critical role of financial health in profitability.

Notably, the three-way interaction term ( $ROE_{i,t} \times Dig_{i,t} \times Loss_{i,t}$ ) is significantly positive in Model (1) (coefficient = 0.0193,  $t = 3.80$ ). This indicates that for loss-making firms, the positive effect of digital transformation on ROE is enhanced. This finding supports our hypothesis that loss-making status moderates the effect of digital transformation on profitability. It suggests that although digital transformation is generally seen as a key to improving competitiveness, its impact varies significantly among firms with different financial conditions. For loss-making firms, digital transformation may provide an effective way to improve their financial performance.

**Table 5.** Moderation effect of loss (ROE as dependent variable)

VARIABLES	ROE	ROE
Dig	0.00482***	0.00343*
	(3.66)	(2.52)
interaction		0.0193***
		(3.80)
Liquid	-0.00057	-0.0006
	(-1.02)	(-1.07)
Lev	-0.047***	-0.0478***
	(-6.22)	(-6.30)
Cashflow	0.368***	0.368***
	(21.64)	(21.66)
Intangible	-0.122***	-0.122***
Board	(-5.11)	(-5.13)
	0.00737	0.00783
	(1.36)	(1.45)
Mfee	-0.171***	-0.168***

	(-11.20)	(-11.03)
	-0.274***	-0.301***
Loss	(-70.89)	(-36.35)
Constant	0.6961***	6.0973***
	(7.73)	(7.83)
Observations	6718	6718
F	955.65	852.77

\*Note: \*\*\*, \*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

#### 4.4. Robustness Analysis

To ensure the reliability of our results, we conducted a sensitivity test by replacing the dependent variable. Specifically, we used return on assets (ROA) as an alternative profitability measure instead of ROE. As shown in Table 6, when using ROA as the dependent variable, the coefficients on the key variables and their significance levels remain consistent with the main results. In particular, the coefficient on lagged ROA is significantly positive in both model specifications, and its magnitude (as indicated by the t-values) is similar to that in the ROE-based models. This indicates that whether ROE or ROA is used as the profitability measure, the positive effect of digital transformation on firm profitability remains robust. This finding further confirms the important role of digital transformation in enhancing firm profitability.

**Table 6.** Results of robustness test for replacing explanatory variables

VARIABLES	ROA_lagged	ROA_lagged
ROA	0.471***	0.561***
	(36.45)	(25.85)
Dig	0.00271**	0.00519***
	(2.99)	(5.08)
Liquid	0.00336***	0.00308***
	(8.62)	(7.85)
Lev	0.0787***	6.0777***
	(6.19)	(6.13)
Cashflow	0.148***	0.147***
	(5.89)	(5.83)
Intangible	-0.0265*	-0.0283**
	(-2.46)	(-2.63)
Year	—	控制
Constant	0.0146	0.0105
	(1.73)	(1.24)
Observations	4412	4412
F	323.83	288.34

\*Note: \*\*\*, \*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

## 5. CONCLUSIONS

### 5.1. Research Conclusions

Based on a panel dataset of listed SMEs on China's Shanghai and Shenzhen A-share markets from 2011 to 2021, this paper investigates how the degree of digital transformation affects firm profitability (ROE) and examines the moderating effect of a firm's loss-making status. The following main conclusions are drawn:

#### 5.1.1. Digital Transformation Has A Long-Term Positive Effect on Profitability

The results show that SMEs implementing digital transformation experience a significant increase in profitability, and this effect persists over time. Sustained investment in digital transformation helps firms form stable competitive advantages and achieve long-term growth in profitability.

#### 5.1.2. Loss-Making Status Significantly Moderates the Transformation–Profitability Relationship.

The empirical findings indicate that whether a firm is loss-making significantly influences the impact of digital transformation on profitability. Specifically, digital transformation provides a more effective

and urgent way for loss-making firms in financial distress to improve their financial performance. In other words, the positive effect of digital transformation is especially pronounced in resource-constrained firms that need to reduce costs and improve efficiency.

## **5.2. Policy Recommendations**

Based on the above conclusions and considering the challenges and opportunities that Chinese SMEs face in the digital transformation process, we offer the following recommendations:

SMEs should integrate digital transformation into their core strategy and enhance strategic planning. Firms should break away from traditional business thinking and view digital transformation as a key means of reshaping core competitiveness. Specifically, they should develop clear strategic objectives according to their own characteristics (such as resources, industry, and life-cycle stage) and identify key areas for transformation, such as customer relationship management, supply chain optimization, and product innovation. Through market research and internal analysis, aligned with technology development trends, firms should ensure that digital investments are well integrated with their actual development needs. Increase investment in technological innovation and focus on building digital capabilities. The core of digital transformation lies in technology and talent. Firms should continue to increase R&D investment in cutting-edge technologies such as cloud computing, big data, and artificial intelligence to improve operational efficiency, reduce costs, and support personalized services. At the same time, firms should emphasize the development and recruitment of technical personnel as a key part of their human resources strategy. By combining internal training with external hiring, they should build a professional team with high-level digital skills and innovation capabilities to ensure the smooth implementation of transformation activities and continuous innovation.

The government should improve the policy support system and create an environment conducive to transformation. Given SMEs' limitations in resources and risk-bearing capacity, relevant government departments should play an active guiding and supportive role. On the one hand, they should continue to strengthen the development of new infrastructure (such as digital technology platforms) to lower the technology acquisition threshold and application costs for SMEs. On the other hand, they should formulate more targeted incentive policies (for example, tax relief, financial support, or digital service vouchers) to help SMEs reduce transformation costs and improve efficiency, thereby promoting the deep integration of the digital economy with the real economy.

## **REFERENCES**

- Li, W. X. (2022). The relationship between management innovation, digital transformation, and enterprise performance: Evidence from Chinese manufacturing enterprises. *China Price*, (12), 103–106.
- Liu, D., Bai, F., & Dong, K. (2022). A study on the mechanism of digital transformation's impact on enterprise performance. *Finance and Accounting Communications*, (16), 120–124.
- Ye, J., & Gu, M. (2023). The impact mechanism of digital transformation on enterprise performance: Research framework and outlook. *Finance & Accounting Monthly*, 44(13), 153–160..
- Bai, F., Liu, D., & Dong, K. (2022). How does digital transformation affect corporate financial performance: A multiple mediation analysis based on structural equation modeling. *East China Economic Management*, 36(9), (pages not specified).
- Yao, Y., & Xia, W. (2022). Company performance and digital transformation: An empirical analysis based on Chinese listed companies. *Industrial Innovation Research*, (10), 151–153.
- Jiang, W. (2021). Analysis of the impact of digital transformation of distribution organizations on supply chain performance. *Business Economic Research*, (20), 25–28.
- Qi, Y., & Cai, C. (2020). Multiple impacts of digitalization on manufacturing enterprise performance and its mechanisms. *Study and Exploration*, (7), 108–119.
- Qiu, H., & Xu, H. (2022). The impact of digital transformation on the performance of agricultural enterprises. *Statistics & Decision*, 38(3), 90–95.
- Zhang, H. (2023). Study on the impact of digital transformation on the performance of S enterprises [Master's thesis, Shanxi University of Finance and Economics].
- Song, Y., & Jiang, Z. (2023). Study on the impact of digital transformation on the performance of manufacturing enterprises. *Finance and Accounting Communications*, (10), 35–39.

- Li, B., Wang, B., & Qing, X. (2018). Corporate social responsibility fulfillment, media supervision, and financial performance: Empirical evidence from heavily polluting industries in China's A-share market. *Accounting Research*, (7), 64–71.
- Zhou, X., & Guo, S. (2023). How digital transformation affects corporate profitability: Mechanisms and empirical evidence from the perspective of the digital economy. *Journal of Guizhou University of Finance and Economics*, (1), 32–40.
- Sun, Y. (2011). Analysis of factors affecting corporate profitability. *Journal of Shanxi University of Finance and Economics*, 33(2), 62.
- Shao, W., & Jiang, Y. (2019). Analysis of factors affecting profitability of China's listed manufacturing companies. *Business & Management*, (4), 41–45.
- Gong C, Ribiere V. Developing a unified definition of digital transformation[J]. *Technovation*, 2021, (102): 102217.
- Vial G. Understanding digital transformation: A review and a research agenda[J]. *Managing digital transformation*, 2021, (2): 13-66.
- Liu, J. (2007). Comparative analysis of SME classification standards in Japan, the United States, and China: Implications. *Southeast Asian Studies*, (2), 56–60.
- Leuz, C., Lins, K. V. & Warnock, F. E.. Do investors' perceptions of risk drive capital flows? *The Review of Financial Studies*, 2010, (6) :3113-3145.
- Graham J R, Harvey C R. The theory and practice of corporate finance: Evidence from the field[J]. *Journal of financial economics*, 2001, 60(2-3): 187-243.
- Liu, T., & Zhang, X. (2021). The current status, problems, and countermeasures of digital transformation of Chinese SMEs. *Guizhou Social Sciences*, (2), 148–155.
- Lou, Y., & Liu, M. (2022). SME digital transformation: From hesitancy to seizing momentum – A study of transformation paths and performance based on text mining. *Industrial Technology Economics*, 41(2), 3–13.

**Citation:** Rongguang Yu, Guifang Fu. " Research on the Impact of Digital Transformation on the Performance of Small and Medium-Sized Enterprises - Based on the Perspective of Profitability". *International Journal of Managerial Studies and Research (IJMSR)*, vol 14, no. 1, 2026, pp.35-43. DOI: <https://doi.org/10.20431/2349-0349.1401005>.

**Copyright:** © 2026 Author. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.