

# Digital Transformation and Corporate Performance: The Moderating Role of Corporate Culture

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**Abstract:** This study explores how Digital transformation affects corporate performance and the moderating role of corporate culture in this process. By analyzing the data of Chinese listed companies, we find that Digital transformation has a positive impact on corporate performance, and corporate culture can further enhance this impact. Our research findings have important implications for both theory and practice. As for theory, our research has deepened the understanding of the impact of Digital transformation and revealed the moderating role of corporate culture. For practice, our research results suggest that enterprises should actively carry out Digital transformation and cultivate an enterprise culture that supports innovation and change. Policymakers can also draw inspiration from our research results, for example, they can provide financial support and technical training, and formulate favorable policies to encourage enterprises to carry out Digital transformation. However, our research also has some limitations, such as not considering the possible mediating role of corporate culture and the limitations of the sample. Future research can try to address these limitations and further broaden our understanding of the relationship between Digital transformation, corporate culture and corporate performance.

**Keywords:** Digital Transformation; Corporate Performance; Corporate Culture; Moderating Effect; Chinese Listed Companies.

## 1. Introduction

The theme of this study is Digital transformation and corporate performance: the moderating role of corporate culture. With the increasing globalization and informatization, Digital transformation has become the key to the development of many enterprises. At the same time, there is increasing attention to corporate performance, which has become an important indicator for measuring the success or failure of enterprise operations. However, there is no clear consensus on how Digital transformation affects corporate performance and the role of corporate culture in this process.

This paper aims to explore how Digital transformation affects corporate performance and the moderating role of corporate culture in this process. Our research hypotheses are: (1) Digital transformation has a positive impact on enterprise performance; (2) Corporate culture can adjust the impact of Digital transformation on corporate performance. Based on these assumptions, we will conduct empirical research to try to reveal the complex relationship between Digital transformation, corporate culture and corporate performance.

The structure of this article is as follows: The second part will review relevant literature; The third part will propose our theoretical framework and assumptions; The fourth part will introduce our research methods; The fifth part will present our research results and analyze them; The sixth part will present our conclusion; The final section will discuss our research limitations and future research directions.

## 2. Theory and Research Hypothesis

### 2.1. Theory

theoretical framework is shown in the following figure:

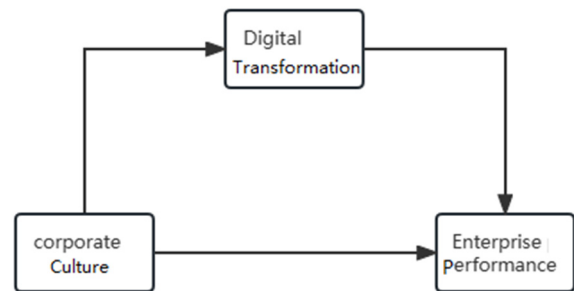


Fig 1. The Theoretical Framework of the study

In this model, Digital transformation is an independent variable, corporate performance is a dependent variable, and corporate culture is a moderating variable. We believe that Digital transformation will directly affect corporate performance, while corporate culture will adjust the relationship between Digital transformation and corporate performance. the theory of Digital transformation refers to the principles and methods adopted by organizations, enterprises or society in response to changes in the digital era. It emphasizes the use of digital technology and data-driven approaches to change traditional business models, processes, and value creation methods, in order to achieve efficiency improvement, innovative breakthroughs, and sustained competitive advantages.

The Digital transformation theory provides a framework to help organizations and enterprises understand the challenges and opportunities in the digital era, and provide guidance and direction to ensure that they can adapt to the rapidly changing market demand and technological progress. This theory covers multiple aspects, including strategic planning, organizational culture, technical architecture, talent cultivation, etc.

In the theory of Digital transformation, key concepts and

principles include:

**Customer centric:** By deeply understanding customer needs and behaviors, we can redesign products, services, and interaction methods to provide personalized and customized experiences.

**Data driven decision-making:** use big data and analysis technology to gain insights from massive data, make decisions and innovate based on data, and achieve refined management and continuous optimization.

**Agile innovation:** Adopting flexible methods and processes, rapid trial and error, and rapid iteration to respond to market changes and uncertainties, driving innovation and growth.

**Talent cultivation and organizational culture:** cultivate the skills and qualities required in the digital era, create an organizational culture that adapts to change and innovation, and promote sharing, collaboration, and learning.

**Technical architecture and Digital ecosystem:** build a flexible and scalable technical infrastructure, integrate internal and external resources, build a digital ecosystem, and achieve collaboration and value co creation between all parties.

The goal of the Digital transformation theory is to help organizations fully understand and grasp the opportunities in the digital era, improve efficiency and competitiveness through reform and innovation, and achieve sustainable development. However, the specific Digital transformation strategy and implementation method need to be customized according to the specific situation and objectives of the organization, so the theory is only a guiding framework, and the actual operation needs to be adjusted and improved according to the specific situation in practice.

Enterprise performance is a comprehensive evaluation of the achievement of goals and results by a company. It is usually based on a series of indicators and indicator systems, used to measure and evaluate the performance and results of enterprises in various aspects.

Enterprise performance evaluation can be conducted from multiple perspectives, and the following are some common performance indicators:

**Financial performance:** including financial indicators such as sales revenue, profit, return on equity, cash flow, etc., reflecting the profitability, solvency, and investment return of the enterprise.

**Customer performance:** includes indicators such as customer satisfaction, customer retention rate, and market share, reflecting the company's market position and customer relationship management capabilities.

**Operational performance:** includes indicators such as production efficiency, cost control, and on-time delivery rate to measure the operational efficiency and management level of the enterprise.

**Innovation performance:** including R&D investment, Product development speed, proportion of innovation income and other indicators, reflecting the innovation ability and competitive advantage of enterprises.

**Employee performance:** includes indicators such as employee satisfaction, training investment, and employee turnover rate, which measure the company's human resource management capabilities and employee performance.

**Social responsibility performance:** including indicators such as environmental impact, social contribution, and corporate ethics, reflecting the sustainable development and social responsibility fulfillment of the enterprise.

Enterprise performance evaluation is not only about

measuring the results of a period of time in the past, but also about providing feedback on the achievement of enterprise goals and providing reference for future decision-making and improvement. Effective Business performance management needs to set clear goals, establish measurable indicators, regularly monitor and evaluate performance, find problems and take corrective measures.

The most important thing is that enterprise performance evaluation should be consistent with the long-term strategy and values of the enterprise, to ensure that performance evaluation is meaningful for the strategic goals and long-term development of the enterprise, and can drive the enterprise towards a higher level.

Corporate culture refers to the sum of common values, beliefs, behavioral norms, and ways of behavior within an enterprise. It represents the identity and core values of a company, influencing communication, cooperation, and decision-making within and outside the organization.

Corporate culture plays a crucial role in the development and success of enterprises, and the following are some important characteristics of corporate culture:

**Values and beliefs:** Corporate culture is rooted in shared values and beliefs, reflecting the principles and behavioral norms valued by business members. These values can include integrity, innovation, excellence, teamwork, etc., which have important guiding significance for guiding employees' behavior and decision-making.

**Leadership and exemplary role:** Corporate culture is advocated and practiced by the leadership, and the behavior and decisions of the leadership play a crucial role in shaping the corporate culture. Leaders should lead by example, become role models for culture, and pass on and strengthen corporate values through actions.

**Communication and cooperation:** A good corporate culture encourages open communication and active cooperation. It advocates mutual trust and support among employees, promotes teamwork and knowledge sharing, and creates a good work atmosphere.

**Innovation and learning:** A positive corporate culture encourages innovation and learning, advocating for employees to continuously improve and surpass themselves. It provides an environment to accommodate failures and learn from them, promoting sustained personal and organizational development.

**Customer orientation:** An excellent corporate culture places customer needs and satisfaction at the core. It emphasizes customer centeredness, pursues the provision of excellent products and services, and continuously meets and exceeds customer expectations.

**Social responsibility:** Corporate culture also includes responsibility and attention to society and the environment. It advocates for enterprises to actively fulfill their social responsibilities in the business process, promote sustainable development and social welfare.

Corporate culture is unique and needs to be built on the organization's strategic goals and values. A strong and positive corporate culture can empower employees, improve employee satisfaction and loyalty, and help businesses achieve long-term success.

Based on the above theoretical framework, we propose the following assumptions:

**Hypothesis 1:** Digital transformation has a positive impact on enterprise performance.

This assumption is based on the Digital transformation

theory. Many studies have proved that Digital transformation can help enterprises improve their business processes and operational efficiency, thus improving enterprise performance (Bharadwaj et al., 2013; Matt et al., 2015; Hess et al., 2016).

Hypothesis 2: Corporate culture will adjust the relationship between Digital transformation and corporate performance.

This assumption is based on the theory of corporate culture. Some studies have shown that corporate culture can affect various activities and performance of a company (Denison, 1990; Sorensen, 2002). Therefore, we speculate that corporate culture may affect the impact of Digital transformation on corporate performance.

## 2.2. Research Hypothesis

This section will introduce our research methods, including sample and data collection, definition and measurement of variables, as well as research models and analytical methods.

Our research sample includes Chinese listed companies, with a time span of 2018-2023. We chose listed companies as our research sample because their data is publicly available and transparent, making it easier for us to conduct research. We collect data through sources such as publicly available financial reports and annual reports.

Digital transformation: We measure Digital transformation by the proportion of enterprises' expenditure on digital technology investment and application in total expenditure. The data is sourced from the company's annual report.

Corporate performance: We use ROA (Return on Assets) and market stock return to measure corporate performance. The data comes from the enterprise's financial report and the Stock Market data.

Corporate culture: Due to the difficulty of directly measuring corporate culture, we collected data on employees' perception of corporate culture through a questionnaire survey method, and measured it using Denison's (2000) Corporate Culture Scale.

Research models and analytical methods

We use a moderating effect model to test our hypothesis. The specific model is as follows:

$$\text{Enterprise performance} = \beta_0 + \beta_1 * \text{Digital transformation} + \beta_2 * \text{Corporate Culture} + \beta_3 * \text{Digital transformation} * \text{Corporate culture} + \varepsilon$$

We use SPSS software for data analysis. Firstly, we conduct descriptive statistical analysis and correlation analysis. Then, we test our hypothesis through regression analysis.

## 3. Analysis of Results

This section will present our research results and analyze them.

Descriptive statistics

We first conducted descriptive statistical analysis. The results show that the investment and application of our sample enterprises in Digital transformation are relatively extensive, the overall corporate performance is stable, and there are certain differences in the perception of corporate culture.

correlation analysis

The results of correlation analysis show that there is a significant positive correlation between Digital transformation and enterprise performance, which supports our first hypothesis. In addition, we also found that there is a certain correlation between corporate culture, Digital transformation and corporate performance.

Regression analysis results and explanations

According to the results in the table above, we find that

Digital transformation has a significant and positive impact on enterprise performance, which verifies our first hypothesis. At the same time, we find that the interaction between Digital transformation and corporate culture has a significant and positive impact on corporate performance, which verifies our second hypothesis that corporate culture can regulate the impact of Digital transformation on corporate performance.

Verification of assumptions

Based on the above analysis, our two hypotheses have been verified: (1) Digital transformation has a positive impact on enterprise performance; (2) Corporate culture can adjust the impact of Digital transformation on corporate performance.

## 4. Conclusion

In this study, we explored how Digital transformation affects corporate performance and the moderating role of corporate culture in this process. Our research results verify our two hypotheses: (1) Digital transformation has a positive impact on enterprise performance; (2) Corporate culture can adjust the impact of Digital transformation on corporate performance.

Our research has the following contributions. First, our research deepened our understanding of the impact of Digital transformation, especially its impact on corporate performance. Our research results show that Digital transformation can significantly improve enterprise performance, which is consistent with previous studies (such as Bharadwaj et al., 2013; Matt et al., 2015; Hess et al., 2016). Secondly, our research reveals the moderating role of corporate culture in the relationship between Digital transformation and corporate performance, which has not been involved in previous research. Our results show that corporate culture can further enhance the positive impact of Digital transformation on corporate performance.

However, our research also has some limitations. Firstly, our study only considered the moderating effect of corporate culture and did not consider its possible mediating role. Secondly, our sample only includes listed companies in China and may not be applicable to other countries and types of enterprises. Future research can try to address these limitations and further broaden our understanding of the relationship between Digital transformation, corporate culture and corporate performance.

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