

Digital Transformation and Performance Improvement: A Theoretical Analysis Based on the Resource-Based View

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Abstract: This study aims to explore the mechanisms through which digital transformation influences corporate performance, providing a theoretical analysis from the perspective of the resource-based view. The research methodology primarily combines literature review and theoretical deduction to construct an analytical framework centered on resource acquisition, resource integration, and capability reconfiguration. The findings indicate that digital transformation can effectively enhance corporate performance by improving resource allocation efficiency, strengthening market insight and value creation capabilities, and promoting the development of dynamic capabilities. However, digital transformation does not necessarily lead to performance improvement; its effectiveness depends on the alignment of corporate strategy, organizational learning capacity, and the level of resource integration. The study emphasizes that companies should ensure their digital initiatives are consistent with their resource endowments and long-term development strategies, avoid falling into “technology traps,” and achieve sustainable competitive advantage through capability development and talent cultivation.

Keywords: Digital Transformation; Resource-Based View; Corporate Performance; Resource Integration; Dynamic Capabilities

1. Introduction

In the context of the rapid development of the global digital economy, corporate digital transformation has become a core pathway for enhancing competitiveness and achieving sustainable development. With the continuous emergence of technologies such as cloud computing, big data, artificial intelligence, and blockchain, the market environment faced by

companies has fundamentally changed: competitive boundaries are becoming blurred, industry ecosystems are constantly being reshaped, and consumer demands are increasingly personalized and dynamic. Under this trend, the traditional competition logic relying on economies of scale and cost advantages is gradually waning, replaced by new resource allocation models based on data and knowledge. Digital transformation not only involves the adoption of technology but also entails a systematic reshaping of corporate strategy, organization, processes, and culture [1]. The resource-based view (RBV) posits that a firm’s core competitiveness stems from resources that are rare, inimitable, non-substitutable, and value-generating [2]. Unlike traditional tangible resources, digital-related resources are highly dynamic and scalable, offering a new perspective for applying RBV in the digital context [3]. On one hand, digital technologies themselves can be regarded as new strategic resources, enabling firms to break through existing capability boundaries. On the other hand, the data accumulation, organizational capabilities, knowledge-sharing mechanisms, and innovation culture formed during digital transformation also constitute critical sources of sustainable competitive advantage. Therefore, exploring the relationship between digital transformation and performance improvement from the RBV perspective not only enriches theoretical research in strategic management but also provides valuable insights for practice.

From a practical perspective, an increasing number of companies have achieved business growth and value creation through digital transformation. For example, manufacturing firms have significantly improved production efficiency through digital twins and smart factories; retail companies have optimized customer experience through big data analytics and intelligent recommendations; financial

institutions have enhanced risk control and service innovation capabilities using artificial intelligence and blockchain. These cases demonstrate that digital transformation has become a key driver of corporate performance improvement. However, some firms encounter difficulties during the digitalization process: the return on technology investment may fall short of expectations, organizational restructuring may be challenging, employee skill transformation may lag, and in some cases, a “digital paradox” emerges, where increased digital investment does not translate into improved performance. This reality indicates that the relationship between digital transformation and performance is not linear or simple but is influenced by multiple factors such as resource acquisition, capability building, and environmental adaptation.

In academic research, studies on corporate digital transformation mainly focus on two directions: one emphasizes technology adoption and organizational adaptation, examining how digitalization alters internal operational mechanisms; the other focuses on performance outcomes, exploring the relationship between digital investment and financial performance, innovation output, and customer value. However, current research still has two major limitations: first, although numerous empirical studies reveal correlations between digital transformation and performance, they lack deep theoretical explanation and fail to uncover the underlying mechanisms; second, there is insufficient discussion on how digital resources couple with a firm’s existing resource system and form competitive advantages in dynamic environments. Therefore, it is necessary to re-examine the intrinsic relationship between digital transformation and performance improvement from a theoretical perspective grounded in the RBV.

This study uses the RBV as an analytical framework, focusing on the following core questions: How do firms acquire, allocate, and integrate digital resources during digital transformation? Through which pathways are these resources converted into dynamic capabilities and ultimately enhance corporate performance? How do firms address challenges posed by resource homogenization and rapid imitation to build sustainable competitive advantages? By addressing these questions through literature review and theoretical analysis,

this paper aims to reveal the resource logic and performance logic of digital transformation, providing new perspectives for both academic research and practical application.

2. Literature Review

2.1 Research Progress on Corporate Digital Transformation

With the widespread application of digital technologies, corporate digital transformation has gradually become a core topic of interest in both academia and practice. Early studies mainly focused on the relationship between information technology implementation and operational efficiency, suggesting that digital tools could improve productivity and reduce costs to a certain extent [4]. However, with the rise of emerging technologies such as big data, artificial intelligence, and cloud computing, digital transformation has evolved beyond the mere application of information technology to involve systematic adjustments in corporate strategy, organizational structure, business processes, and culture. Scholars generally consider digital transformation as a key approach for firms to achieve sustainable competitive advantage in dynamic competitive environments [5].

Existing research indicates that during digital transformation, firms not only enhance their resource integration and business innovation capabilities but also expand value networks through cross-industry collaboration and ecosystem development [6].

Moreover, recent studies have pointed out that the effects of digital transformation vary significantly depending on industry, firm size, and the strategic perception of management [7]. For example, manufacturing firms emphasize the digitalization and intelligence of production processes to reduce costs and improve efficiency, whereas service firms focus more on mining and applying customer data to enhance customer experience and market responsiveness. These studies provide an important theoretical foundation for understanding the diverse pathways of digital transformation.

2.2 Research on the Relationship between the Resource-Based View and Corporate Performance

RBV emphasizes the scarcity, inimitability, and non-substitutability of firm resources, arguing that these resources are fundamental for

obtaining and sustaining competitive advantage [8]. Previous research primarily focused on traditional tangible and intangible resources, such as capital, technology, brand, and organizational culture. With the development of the knowledge economy and digital economy, scholars have further incorporated digital resources into the research scope, including data assets, digital capabilities, and technological infrastructure [9]. These resources are considered key drivers of corporate digital transformation.

Relevant literature suggests that during digital transformation, firms that can effectively identify, integrate, and utilize these critical resources are able to develop new dynamic capabilities, thereby enhancing overall performance [10]. For example, by accumulating and analyzing big data, firms can more accurately identify changes in market demand and improve product development and service models. By developing digital platforms and ecosystems, firms can strengthen resource sharing and external collaboration, thereby expanding market boundaries. It is evident that the RBV provides a solid theoretical foundation for explaining how digital transformation can promote performance improvement.

2.3 Current Research and Limitations on Digital Transformation and Performance Improvement

Existing literature generally supports the positive impact of digital transformation on corporate performance, but some disagreements and limitations remain. First, some studies find that the short-term effects of digital transformation are not significant and may even cause firms to face high investment and high risk during the early stages of transformation, negatively affecting financial performance [11]. Second, academia has yet to reach a consensus on the mechanisms linking digital transformation and performance. Some studies emphasize the direct effects of technology application, while others focus on indirect factors such as organizational capabilities, strategic alignment, and corporate culture [12].

In addition, current research primarily focuses on quantitative empirical analysis, whereas theoretical discussions based on RBV are relatively insufficient, especially regarding the intrinsic logic of how digital

resources are transformed into corporate performance. As the digital economy continues to evolve, firms need to re-examine the value attributes and integration methods of resources to achieve sustainable competitive advantage. Therefore, theoretical analysis grounded in RBV is crucial for understanding the relationship between digital transformation and performance improvement, and it also provides directions for future research.

3. Theoretical Analysis

3.1 Digital Transformation and Resource Acquisition

RBV emphasizes that a firm's competitive advantage derives from resources that are rare, inimitable, and non-substitutable. With the advancement of digital transformation, firms can break through traditional resource boundaries and acquire new critical resources.

First, firms gain richer and more diverse data resources in the digital environment. Data not only becomes a "new production factor" for business operations but, when combined with algorithms, platforms, and computing power, can be transformed into sustainable competitive assets.

Second, digital transformation brings new technological resources, including artificial intelligence, cloud computing, and blockchain. These technologies not only change business processes but also provide entirely new ways of creating value.

Finally, digital transformation expands relational resources. Through digital platforms, firms can more efficiently connect with customers, partners, and suppliers, forming cross-industry collaborative networks and enhancing the breadth and speed of resource acquisition.

Therefore, in the context of digital transformation, firms not only accumulate traditional physical and financial resources but also expand information, technological, and relational resources through digital means, laying the foundation for subsequent capability development.

3.2 Capability Building and Integration

Resources alone cannot automatically generate competitive advantage; the key lies in whether firms can effectively integrate resources and convert them into capabilities. Digital

transformation facilitates the development of dynamic capabilities.

First, firms need sensing capabilities to capture changes in market demand and technological trends through big data and intelligent analytics. Second, firms require integration capabilities to combine internal and external resources organically. For example, integrating supply chain data with production systems to form intelligent operational models. Third, firms need reconfiguration capabilities to flexibly adjust business models and organizational structures in uncertain competitive environments to continuously adapt to external changes.

Digital transformation not only enhances traditional operational capabilities but also fosters data-driven decision-making, cross-industry collaboration, and innovation capabilities. These capabilities interact with resources, enabling firms to continuously optimize the value chain and strengthen competitive advantage.

3.3 The Resource–Capability–Performance Logic Chain

From the RBV perspective, the pathway for improving corporate performance can be summarized as a “resource acquisition→ capability building→ performance realization” logic chain. Specifically, digital transformation enables firms to acquire new scarce resources, which are then integrated and transformed into organizational capabilities, ultimately driving performance improvement through the application of these capabilities.

For instance, firms can collect and analyze customer behavior data through digital technologies to optimize marketing strategies, enhance customer satisfaction, and increase market share. Similarly, firms can integrate upstream and downstream resources through digital supply chains to achieve cost control and operational efficiency. Furthermore, firms can leverage digital platforms to enable cross-industry innovation, creating new revenue streams and business models, thereby achieving sustainable growth.

This logic chain indicates that the relationship between resources, capabilities, and performance is not linear but rather an interactive, dynamic process. Digital transformation continually introduces new resources and capabilities, promoting multidimensional performance improvements, including financial, market, and

innovation performance.

3.4 Theoretical Implications

The RBV-based analysis offers important theoretical insights for corporate digital transformation. First, when implementing digital transformation, firms should emphasize the diversity and uniqueness of resources, avoiding reliance solely on technological investment, and instead forming competitive advantage through differentiated resource combinations. Second, firms need to establish a dynamic capability system to transform new resources into sustainable capabilities, ensuring long-term competitiveness in complex environments. Finally, performance improvement depends not on a single resource or capability but on the systematic interaction between resources and capabilities. Therefore, firms should adopt a systemic perspective in digital transformation, focusing on strategic alignment and coordinated development.

In summary, the RBV-based theoretical analysis reveals the intrinsic logic between digital transformation and performance improvement: by acquiring new resources, building dynamic capabilities, and converting these capabilities into performance advantages. This logic not only deepens understanding of the mechanisms of digital transformation but also provides a theoretical reference for managerial practice.

Taken together, the theoretical analysis reveals not only the internal mechanisms linking digital transformation and corporate performance but also the broader implications for strategy and practice. By connecting resource acquisition, capability development, and performance outcomes, the analysis provides a systematic perspective that bridges theory and application. These insights set the stage for the conclusion, where the overall findings are synthesized, theoretical contributions are highlighted, and practical as well as future research directions are outlined.

4. Conclusion

Based on the RBV, this study systematically explores the relationship between corporate digital transformation and performance improvement. The findings suggest that a firm’s competitive advantage does not solely depend on changes in the external environment but largely stems from the uniqueness of internal resources and the capability to integrate and utilize them

effectively. Digital transformation is not merely a technological upgrade; it represents a multidimensional restructuring and capability enhancement across data, platforms, talent, processes, and organizational learning.

First, digital transformation drives efficiency improvement by reshaping key resource structures. The introduction of automation and intelligent tools enables firms to significantly reduce costs and enhance resource allocation efficiency across production, operations, and supply chain management. More critically, digital transformation allows firms to transcend the limitations of traditional resource acquisition by tapping into data as a new production factor. Data, when combined with algorithms, computing power, and digital platforms, becomes a rare and inimitable strategic asset that provides sustainable competitive advantage. This finding extends the RBV by highlighting the emergent role of digital resources as intangible yet valuable assets.

Second, digital transformation strengthens market insight and value creation capabilities. Leveraging big data analytics, artificial intelligence, and platform collaboration, firms can more accurately capture market demand changes and deliver precise products and services. Beyond improving customer satisfaction, digitalization also enables firms to shift from transaction-oriented business models to value co-creation models, where customers, partners, and ecosystems jointly participate in innovation. This broader perspective suggests that performance should not only be measured in financial outcomes but also in innovation performance, ecosystem participation, and long-term customer engagement.

Third, digital transformation fosters the development of organizational dynamic capabilities, allowing firms to respond more quickly to environmental uncertainty while maintaining flexibility and adaptability in competition. These mechanisms collectively drive performance improvement.

However, this study emphasizes that digital transformation does not automatically lead to performance growth. Technological investment alone does not constitute competitive advantage; its translation into performance improvement depends on the firm's ability to integrate resources and engage in continuous learning. Firms lacking strategic planning and organizational support may fall into a

"technology trap" despite substantial digital investment, making it difficult to achieve sustainable competitive advantage. This also implies that managers should carefully evaluate the alignment between digital initiatives and the firm's developmental stage, resource endowment, and long-term objectives, rather than pursuing technology adoption for its own sake.

Therefore, firms should align digital transformation initiatives with their resource endowments and developmental stages, define clear strategic objectives, and establish corresponding organizational mechanisms and talent systems.

Theoretically, this study introduces RBV into the analysis framework of digital transformation and performance, highlighting the importance of resource integration and capability development. This approach provides new perspectives for examining the causal relationship between digital strategy and corporate performance. Practically, the findings offer guidance for managers: firms should avoid blindly pursuing technological trends and instead prioritize alignment with internal resources and long-term strategy, particularly by proactively building organizational learning mechanisms and talent development programs.

Future research can further explore the performance effects of digital transformation under different industry contexts and firm sizes, thereby enriching the understanding of this critical topic.

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