

# A Critical Review of the Adaptability of Strategic Management Theory in the Digital Economy Era

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## Abstract

Digital transformation is reshaping the competitive landscape for businesses, challenging traditional strategic management theories. This study conducts a critical review of the adaptability of strategic management theories in the digital economy era. The research employs a historical analysis approach, tracing the evolution from industrial organization theory to dynamic capabilities theory. Through comparative analysis, the study highlights the limitations of traditional theories in explaining new phenomena such as digital business models, platform competition, and ecosystem strategies. Simultaneously, the research acknowledges the continued relevance of certain core concepts from traditional theories, such as the fundamental logic of value creation and competitive advantage. Based on these analyses, the study proposes a framework for integrating traditional theories with emerging digital strategic thinking, emphasizing the importance of interdisciplinary research. Finally, the study outlines potential future directions for strategic management theory, including innovative areas such as AI-assisted strategic decision-making. This research provides new insights for the innovative development of strategic management theory in the digital age.

## Keywords

Strategic Management Theory, Digital Economy, Dynamic Capabilities, Platform Strategy, Digital Transformation

## 1. Introduction

Digital technologies are profoundly reshaping the global economic landscape and business competitive environment. The rapid development and widespread application of emerging technologies such as cloud computing, big data, and artificial

intelligence have driven fundamental changes in business model innovation, industrial chain restructuring, and value creation methods (Vial, 2019). Against this backdrop, traditional strategic management theories face unprecedented challenges and opportunities. For a long time, strategic management theories have provided important theoretical guidance and analytical tools for businesses to formulate and implement competitive strategies. From early industrial organization theory to the resource-based view, and then to dynamic capabilities theory, strategic management theories have continuously evolved at different historical stages, offering rich theoretical insights into the sources of competitive advantage for enterprises (Teece, 2007). However, new phenomena in the digital economy era, such as platform economy, sharing economy, and digital ecosystems, pose severe challenges to traditional theories. For instance, the rise of network effects and multi-sided market theory requires us to rethink the logic of value creation and capture (Parker et al., 2016). The emergence of data as a key strategic resource also prompts us to re-examine the core assumptions of the resource-based view (Akter et al., 2020).

Faced with these challenges, the academic community has engaged in extensive discussions on the adaptability of strategic management theories. Some scholars believe that traditional theories still have explanatory power and only need appropriate expansion and adjustment (Teece, 2018). Others argue that entirely new theoretical frameworks are needed to address strategic issues in the digital age (Nambisan et al., 2017). In this debate, how to assess the limitations and continued relevance of traditional theories, and how to integrate emerging digital strategic thinking, have become the focus of current research. This study aims to clarify the main challenges facing strategic management theories in the digital economy era through systematic literature review and critical analysis, explore possible paths for theoretical innovation, and provide new ideas for promoting the advancement of strategic management theories.

The remainder of this paper is structured as follows: Section 2 presents the historical evolution of strategic management theories. Section 3 examines the limitations of traditional theories in the digital context. Section 4 explores directions for theoretical innovation and integration. Finally, Section 5 concludes the paper with key findings and implications.

## **2. Historical Evolution of Strategic Management Theories**

### **2.1. From Industrial Organization Theory to Resource-Based View**

The development of strategic management theories can be traced back to the 1960s, initially heavily influenced by industrial organization economics. The industrial organization theory, represented by Porter's Five Forces model, emphasized that a firm's competitive advantage mainly stems from the structural characteristics and market position of its industry (Porter, 1980). This view long dominated strategic management research and practice, providing a systematic analytical framework for businesses to formulate competitive strategies. However, as

research deepened, scholars gradually realized that focusing solely on external environmental factors could not fully explain the persistent performance differences among firms.

In the late 1980s, scholars represented by Barney proposed the resource-based view, shifting the research focus to heterogeneous resources within firms (Barney, 1991). The resource-based view posits that a firm's competitive advantage originates from its possession of rare, valuable, inimitable, and non-substitutable resources. This theoretical perspective greatly enriched our understanding of the sources of competitive advantage and promoted the development of related research areas such as core competencies and knowledge management. The proposal of the resource-based view marked an important shift in strategic management theory from external environment analysis to internal resource analysis, laying the foundation for subsequent theoretical developments.

## 2.2. The Rise of Dynamic Capabilities Theory

As the pace of market environment changes accelerated, the static nature of the resource-based view gradually revealed its limitations. To explain how firms maintain competitive advantage in rapidly changing environments, Teece and other scholars proposed the dynamic capabilities theory in the 1990s (Teece et al., 1997). Dynamic capabilities are defined as a firm's ability to integrate, build, and reconfigure internal and external resources to address rapidly changing environments. This theory emphasized the importance of continuous innovation and adaptation to environmental changes, pushing strategic management research towards a more dynamic perspective.

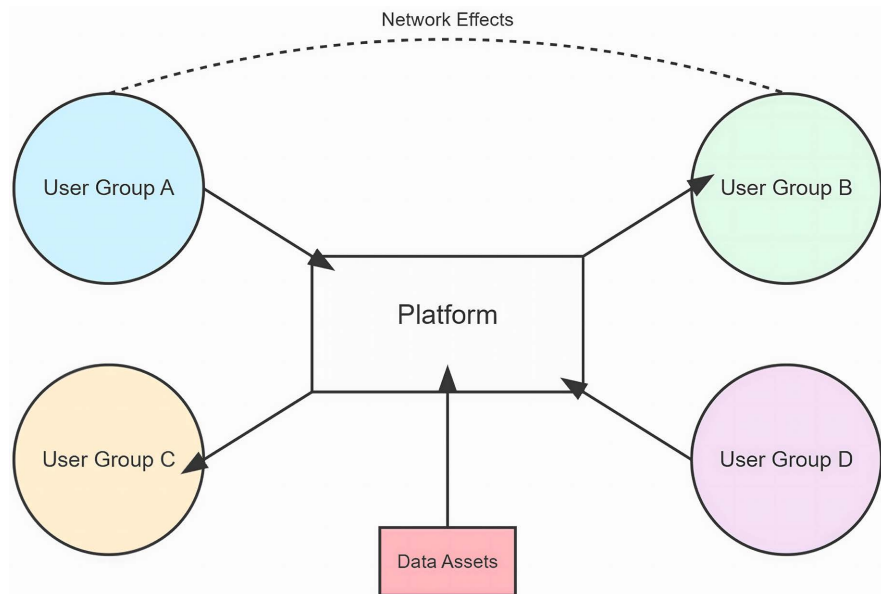
The introduction of dynamic capabilities theory has had a profound impact on the field of strategic management. It not only extended the resource-based view but also provided new insights into explaining competitive advantage in emerging industries. For example, in rapidly changing high-tech industries, a firm's success often depends on its ability to sense market opportunities, reconfigure resources, and innovate business models, rather than static resource endowments. The development of dynamic capabilities theory has also promoted research in related fields such as organizational learning and knowledge management, providing an important theoretical foundation for understanding how firms maintain competitiveness amid change.

## 2.3. Emerging Strategic Thinking in the Digital Age

With the rapid development of digital technologies, traditional strategic management theories face challenges in explaining some emerging phenomena. To address these challenges, new strategic thinking and theoretical perspectives have emerged in recent years. Among them, platform strategy and ecosystem strategy are two areas receiving significant attention.

Platform strategy focuses on how to create and capture value in multi-sided markets. Unlike traditional linear value chains, the platform model emphasizes

creating value by facilitating interactions between different user groups. This way of thinking requires us to reconsider the sources of competitive advantage, such as the importance of network effects and data assets (as shown in **Figure 1**). Ecosystem strategy further extends this idea, emphasizing the coordination of multiple interests in complex cross-industry networks to co-create value (Jacobides et al., 2018). These emerging strategic thoughts not only challenge some basic assumptions of traditional theories but also provide new analytical tools for understanding competitive dynamics in the digital economy era.



**Figure 1.** Platform strategy concept diagram. Source: Parker, G. G., Van Alstyne, M. W., & Choudary, S. P. *Platform revolution: How networked markets are transforming the economy and how to make them work for you*. W. W. Norton & Company, p. 123.

As shown in **Figure 1**, platform strategy emphasizes creating and capturing value by connecting multiple user groups and leveraging network effects and data assets. This dynamic characteristic of multi-sided markets challenges traditional strategic analysis frameworks, requiring us to rethink the sources and sustainability of competitive advantage.

### 3. Limitations of Traditional Strategic Management Theories

#### 3.1. Inadequacies in Explaining Digital Business Models

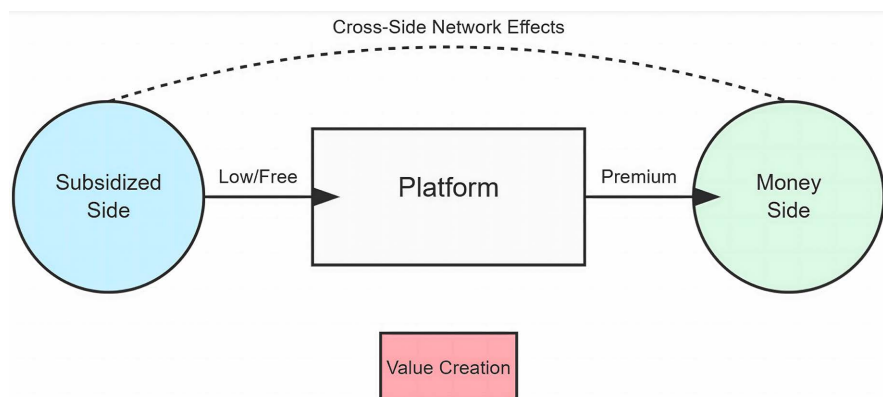
Traditional strategic management theories reveal some limitations in explaining digital business models. First, traditional theories often assume that value creation and capture occur within relatively closed value chains, whereas digital business models are typically based on open platforms or ecosystems (Zhu & Furr, 2016). This fundamental difference makes it difficult for traditional value chain analysis to fully capture the value creation logic of digital enterprises. For example, the value of sharing economy platforms like Uber and Airbnb mainly comes from

connecting and coordinating dispersed resources, rather than traditional resource ownership and control.

Second, traditional theories lack sufficient recognition of the importance of intangible assets and network effects. In the digital economy, data, algorithms, and user networks are often the most critical strategic assets for enterprises, but these factors are difficult to adequately evaluate and analyze within traditional theoretical frameworks (McAfee & Brynjolfsson, 2017). Lastly, the relatively stable competitive environment assumed by traditional theories is inconsistent with the rapid changes and disruptive innovations characteristic of the digital economy. This makes strategic decisions based on static analysis potentially quickly obsolete in digital environments.

### 3.2. Challenges in Addressing Platform Competition

Platform competition poses severe challenges to traditional strategic management theories. Traditional industry boundaries become blurred in the platform economy, with cross-industry competition becoming the norm. This makes it difficult for industry-based strategic tools (such as Porter's Five Forces model) to accurately position competitive situations. For example, Amazon, starting as an e-commerce platform, has now expanded into cloud computing, artificial intelligence, and other fields, making it challenging to analyze its competitors and competitive dynamics from a single industry perspective. The network effects and winner-takes-all characteristics of platform competition challenge traditional theories of competitive advantage. In many digital markets, first-mover advantages and user scale may be more critical than traditional resource heterogeneity. Under this dynamic, the strategic focus of enterprises may need to shift from pursuing sustainable competitive advantage to rapid expansion and market lock-in. Finally, the pricing strategies and value capture logic of multi-sided markets differ significantly from traditional theories. Platform companies often adopt complex subsidy strategies to attract different user groups, which are difficult to explain using traditional cost-oriented or value-oriented pricing theories.



**Figure 2.** Platform pricing strategies in multi-sided markets. Source: McKinsey global institute digital economy research center.

As shown in **Figure 2**, platform companies typically adopt differentiated pricing strategies, applying different pricing policies to different user groups. This strategy aims to attract users on one side by subsidizing the other side, thereby achieving cross-side network effects. This complex pricing logic and value capture method are difficult to explain using traditional cost-plus or value-based pricing theories.

### **3.3. Theoretical Gaps in Ecosystem Strategies**

The rise of ecosystem strategies further exposes the limitations of traditional strategic management theories. Traditional theories mainly focus on individual firms or closed value chains, while ecosystems involve multiple independent but interdependent participants. This complex network structure is difficult to analyze using traditional competition or cooperation frameworks (Jacobides et al., 2018). For example, in the smartphone ecosystem, the relationships between Apple, app developers, and users involve both competition and cooperation, which are difficult to explain using traditional strategic theories. The value creation and capture mechanisms in ecosystems differ significantly from the assumptions of traditional theories. In ecosystems, value is often co-created by multiple participants, and the contribution of individual firms may be difficult to measure accurately. This challenges traditional theories' assumptions about firm boundaries and core competencies. For instance, in open-source software ecosystems, value creation is distributed, while value capture may be concentrated in a few key nodes, a dynamic that is difficult to capture using traditional value chain analysis. The evolution and governance mechanisms of ecosystems also go beyond the explanatory scope of traditional theories. Ecosystems typically have self-organizing and adaptive characteristics, and their development trajectories are difficult to predict and control using traditional strategic planning methods. This requires us to rethink the essence of strategic management, shifting from controlling resources to coordinating and guiding complex systems.

## **4. Directions for Theoretical Innovation and Integration**

### **4.1. Integrating Traditional Theories with Digital Strategic Thinking**

Facing the challenges of the digital economy, academia is exploring ways to integrate traditional strategic management theories with emerging digital strategic thinking. One important direction is to expand and reinterpret classic theoretical frameworks. For example, some scholars propose extending the resource-based view to the digital environment, emphasizing the strategic value of intangible assets such as data, algorithms, and networks. This extension not only considers the scarcity and value of these digital assets but also focuses on their replicability and substitutability. Meanwhile, dynamic capabilities theory is continuously evolving to better explain how digital enterprises maintain competitive advantage in rapidly changing environments. This includes how enterprises sense digital opportunities,

reconfigure digital resources, and continuously innovate digital business models. The expansion and reinterpretation of these theories provide new perspectives for understanding the sources of competitive advantage in the digital age.

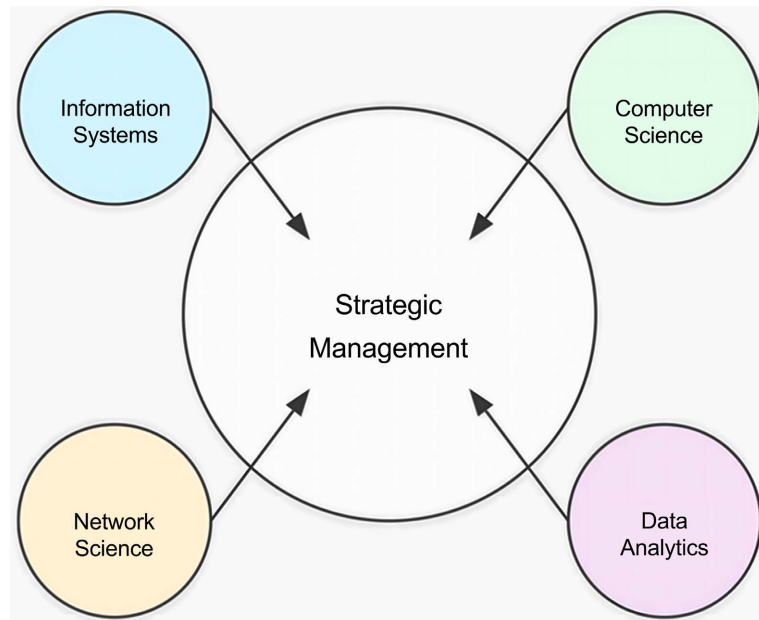
Another important direction is to develop new theoretical perspectives to capture the unique characteristics of the digital economy. For instance, platform ecosystem theory attempts to integrate concepts such as network effects, multi-sided markets, and ecosystem governance, providing a new analytical framework for understanding the competitive dynamics of digital platforms. This theory not only focuses on how platforms create and distribute value but also explores how platforms manage and coordinate complex stakeholder networks. At the same time, open innovation theory has also developed in the digital environment, emphasizing how enterprises leverage external resources and collaborative networks to accelerate innovation. These emerging theories do not aim to completely replace traditional theories, but rather to complement and expand the existing knowledge system to address the new challenges brought by the digital economy. By integrating insights from traditional theories with new digital strategic thinking, we can construct a more comprehensive and dynamic strategic management theoretical framework, providing stronger guidance for enterprises in formulating strategies in the digital age.

#### **4.2. The Importance of Interdisciplinary Research**

The complexity of the digital economy requires strategic management research to adopt a more interdisciplinary approach. Theories and methods from fields such as information systems, computer science, and network science can provide new perspectives and tools for strategic management research. For example, complex systems theory can help us understand the evolutionary dynamics of digital ecosystems, while network science methods can be used to analyze the value network structure in platform economies. Meanwhile, big data analysis and machine learning technologies also provide new methodological support for strategic research, enabling us to better analyze and predict complex market dynamics. This interdisciplinary integration not only enriches the theoretical perspectives of strategic management but also provides more comprehensive solutions for solving practical problems. For instance, when studying the competitive strategies of digital platforms, combining market theories from economics, algorithm design from computer science, and user behavior analysis from psychology can yield more in-depth and practical insights.

Interdisciplinary research not only helps enrich strategic management theories but also promotes the integration of theory and practice. Many new phenomena in the digital economy, such as blockchain and artificial intelligence, require knowledge from multiple disciplines including technology, economics, and management for comprehensive understanding. Therefore, cultivating interdisciplinary research capabilities and establishing interdisciplinary research teams will become key to driving innovation in strategic management theories (as shown in

**Figure 3).** This interdisciplinary collaboration can take various forms, including joint research projects, interdisciplinary doctoral programs, and collaborative research between academia and industry. Through these efforts, we can break the boundaries of traditional disciplines and create more innovative and impactful research outcomes. At the same time, this interdisciplinary approach can help us cultivate more well-rounded talents to provide better strategic guidance for enterprises in the digital economy era.



**Figure 3.** Interdisciplinary research in strategic management. Source: Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. Digital innovation management: Reinventing innovation management research in a digital world. *MIS Quarterly*, 41(1), 223-238.

### 4.3. Data-Driven Theory Construction

The digital economy era provides an unprecedented data foundation for the construction of strategic management theories. Big data and advanced analytics technologies enable researchers to observe and analyze corporate behavior, market dynamics, and competitive landscapes more deeply. This creates new opportunities for data-driven theory construction. For example, by analyzing large-scale transaction data and user behavior data, researchers can more precisely quantify network effects and multi-sided market dynamics, thereby validating and refining platform strategy theories. Meanwhile, social media data and online review data provide new perspectives for studying corporate reputation, brand value, and customer relationship management. This research method based on large-scale real-time data not only enhances the empirical basis of theories but also captures micro-behavioral patterns and macro trends that are difficult to observe using traditional research methods.

Machine learning and artificial intelligence technologies also provide new tools for theoretical development. These technologies not only help researchers identify

patterns and relationships from massive data but can also simulate complex market environments to test the validity of different strategic hypotheses. For instance, by constructing agent-based complex adaptive system models, researchers can better understand the evolutionary dynamics of ecosystems and interactions between enterprises. Natural language processing technology provides new possibilities for analyzing corporate strategic texts, management speeches, and industry reports, helping us gain a deeper understanding of the processes of strategy formulation and communication. However, data-driven theory construction also faces challenges. How to balance the precision of data analysis with the generalizability of theories, and how to handle data bias and privacy issues, require careful consideration from researchers. Future strategic management research needs to maintain the depth and breadth of theoretical thinking while leveraging data insights, ensuring that the generated theories have both empirical support and explanatory and predictive power.

## 5. Conclusion

This study provides a critical review of strategic management theories' adaptability in the digital economy era, revealing both challenges and opportunities for theoretical development. While traditional theories show limitations in fully explaining digital phenomena like platform competition and ecosystem strategies, their core concepts about value creation and competitive advantage remain relevant. The research suggests that future theoretical development should focus on three key directions: 1) integrating traditional frameworks with digital strategic thinking, particularly in areas like data-driven capabilities and platform governance; 2) fostering interdisciplinary research that combines insights from computer science, economics, and organizational studies; and 3) leveraging big data analytics for theory construction and validation. For practitioners, this implies the need to develop hybrid strategic approaches that combine traditional analytical tools with new digital perspectives, while investing in data analytics capabilities and ecosystem orchestration skills. For policy makers, this calls for developing regulatory frameworks that promote healthy digital ecosystem development while ensuring fair competition. This theoretical evolution will be crucial for helping organizations navigate the complexities of digital transformation and maintain competitive advantage in the rapidly evolving digital economy.

## Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

## References

- Akter, S., Michael, K., Uddin, M. R., McCarthy, G., & Rahman, M. (2020). Transforming Business Using Digital Innovations: The Application of AI, Blockchain, Cloud and Data Analytics. *Annals of Operations Research*, 308, 7-39.  
<https://doi.org/10.1007/s10479-020-03620-w>

- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17, 99-120. <https://doi.org/10.1177/014920639101700108>
- Jacobides, M. G., Cennamo, C., & Gawer, A. (2018). Towards a Theory of Ecosystems. *Strategic Management Journal*, 39, 2255-2276. <https://doi.org/10.1002/smj.2904>
- McAfee, A., & Brynjolfsson, E. (2017). *Machine, Platform, Crowd: Harnessing Our Digital Future*. W.W. Norton & Company.
- Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital Innovation Management: Reinventing Innovation Management Research in a Digital World. *MIS Quarterly*, 41, 223-238. <https://doi.org/10.25300/misq/2017/41:1.03>
- Parker, G. G., Van Alstyne, M. W., & Choudary, S. P. (2016). *Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You*. W.W. Norton & Company.
- Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press.
- Teece, D. J. (2007). Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance. *Strategic Management Journal*, 28, 1319-1350. <https://doi.org/10.1002/smj.640>
- Teece, D. J. (2018). Business Models and Dynamic Capabilities. *Long Range Planning*, 51, 40-49. <https://doi.org/10.1016/j.lrp.2017.06.007>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18, 509-533. [https://doi.org/10.1002/\(sici\)1097-0266\(199708\)18:7<509::aid-smj882>3.0.co;2-z](https://doi.org/10.1002/(sici)1097-0266(199708)18:7<509::aid-smj882>3.0.co;2-z)
- Vial, G. (2019). Understanding Digital Transformation: A Review and a Research Agenda. *The Journal of Strategic Information Systems*, 28, 118-144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- Zhu, F., & Furr, N. (2016). Products to Platforms: Making the Leap. *Harvard Business Review*, 94, 72-78.