



Organizational Change Management under the Background of Digital Transformation: A Practical Path with Agile Management as the Core

Yangyidan Zhou

NO.1 MIDDLE SCHOOL OF CILI, Zhangjiajie, 427200, China
zhouchristin99@gmail.com

Abstract. In the context of digital transformation, organizational change management has become crucial for corporate success. However, traditional hierarchical structures and management models struggle to adapt to rapidly evolving technologies and market changes, leading to persistently high failure rates in transformation efforts. This study focuses on agile management, exploring its mechanisms and practical approaches in organizational change, aiming to provide theoretical support and operational guidance for businesses. The study employs case analysis, comparing the digital transformation practices of Huawei and Microsoft. The results show that agile management significantly enhances a company's dynamic responsiveness through flat organizational structures, cross-functional collaboration, and user-oriented mechanisms. Huawei focuses on technology research and development, driving change through an "iron triangle" matrix structure and a "wolf culture." In contrast, Microsoft emphasizes ecosystem collaboration, leveraging flat empowerment and a "growth mindset" culture to achieve transformation. Despite their different paths, both companies have reduced decision-making delays, improved collaboration efficiency, and effectively motivated employees through agile management. Additionally, cultural reshaping and leadership transformation have been proven to be key factors in success. This study reveals the core value of agile management in digital transformation and provides a change path for enterprises to learn from. Future research can further explore the applicability of small and medium-sized enterprises and the application potential of artificial intelligence in organizational change.

Keywords: Digital transformation, organizational change management, agile management, case analysis.

1 Introduction

Currently, digital technologies represented by big data, cloud computing, artificial intelligence, the Internet of Things (IoT), and 5G are reshaping the global industrial landscape at an unprecedented pace. According to predictions by International Data Corporation (IDC), the total global data volume will grow to 175ZB by 2025, more than five times that of 2018 [1]. Gartner research indicates that 85% of enterprises have adopted cloud computing technology, and the penetration rate of artificial intelligence in the

enterprise market is expected to reach 48% by 2023 [2]. These technologies not only transform traditional production models--such as industrial internet, which enhances production efficiency by over 30% through device connectivity, but also give rise to new industries like smart cities, telemedicine, and autonomous driving. Data from the China Academy of Information and Communications Technology shows that in 2022, China's digital economy reached 50.2 trillion yuan, accounting for 41.5% of GDP, making it a core driver of economic growth.

However, McKinsey's research shows that only 30% of companies have achieved significant results in their digital transformation [3]. The fundamental contradiction lies in the fact that the iteration cycle of digital technology has shortened to 6-12 months (for example, GPT models have evolved from version 3.0 to 4.0 in just 2 years), yet traditional organizations still adhere to hierarchical structures--with decision-making chains averaging 5-7 levels, leading to market response delays as high as 83% [4]. A more pressing issue is that only 19% of employees in manufacturing can skillfully use digital analytics tools, and 43% of change initiatives in finance stall due to cultural conflicts [5,6]. This gap between technological acceleration and organizational inertia makes it imperative for companies to build agile management systems.

Agile Management (Agile Management), as a methodology derived from software development, is expanding its value to the transformation of the whole field. It solves the transformation dilemma through different dimensions: To enhance organizational agility, companies can flatten the pyramid structure to fewer than three layers (like Huawei's "iron triangle" model, which reduces decision paths by 60%), adopt agile tools such as Scrum and Kanban for two-week iterations (similar to Microsoft Azure's approach that quadrupled delivery speed), and foster a culture of failure tolerance (inspired by Amazon's "working backward" method, boosting innovation success rates to 35%).

This study reveals how agile management helps organizations bridge the "digital divide" by analyzing the practices of leading companies such as Huawei and Microsoft. Theoretically, it constructs a model of collaborative change across technology, organization, and culture; practically, it provides a reusable transformation framework for enterprises of different sizes, which is of significant practical importance for achieving the strategic goal of "deep integration of the digital economy and the real economy" proposed in the report of the 20th National Congress of the Communist Party of China.

2 Theoretical Basis

2.1 Core Challenges of Digital Transformation

In the process of digital transformation, companies face a sharp contradiction between technology-driven change and organizational inertia. Traditional organizations typically have relatively stable structures, processes, and management models. These long-formed inertias make it difficult for companies to quickly adapt and adjust to rapidly evolving technological changes [7]. For example, traditional hierarchical organizational structures involve multiple layers of information transmission, slow speed, and cumbersome decision-making processes, which fail to promptly respond to market

changes and technological innovations, severely limiting the pace of digital transformation [8].

Employee resistance and the inability of some employees to adapt to digital development are also significant challenges for companies undergoing digital transformation. The introduction of digital tools may cause employees to worry about being replaced and feel fear, leading to resistance against change[9]. Moreover, employees who have long been accustomed to routine work may lack the innovative thinking and learning capabilities required for digital transformation. For older employees, learning new digital skills often presents greater difficulties, which to some extent affects the overall progress of the company's digital transformation.

2.2 The Fit between Agile Management and Organizational Change

One of the theoretical bases of agile management is dynamic capability theory. This theory holds that enterprises need to have the ability to quickly adjust resource allocation and business process, so as to enhance the adaptability to changes in the external environment [10]. In the digital age, the market environment changes rapidly, and customer needs are diversified and personalized. Agile management can help enterprises to timely capture market changes and quickly adjust strategies and business models, so as to gain an advantage in the competition [11].

In terms of leadership, agile management emphasizes that leaders need to transform their roles from traditional command-style leadership to motivational leadership[12]. Leaders motivate employees and provide appropriate rewards, fully mobilizing their enthusiasm and initiative, encouraging active participation in organizational change[13]. At the same time, leaders must also support and provide resources for employees, fostering a positive innovation environment and encouraging them to boldly try new things.

2.3 "Trinity" Transformation Path Model

Strategic upgrades are key to digital transformation. Companies need to use digital tools to rethink and redesign business processes, such as leveraging big data analytics to optimize products and services, utilizing artificial intelligence for automated production and smart customer service, thereby enhancing competitiveness. Organizational restructuring is essential for agile management. Traditional pyramid structures have multiple layers and low efficiency; companies should shift towards flatter, networked structures. Flattening reduces hierarchy and accelerates information flow; networking breaks down departmental barriers and promotes collaboration. Cultural reshaping is the intrinsic driving force of transformation. Companies must foster an open, trial-and-error, and user-centric culture. An open culture encourages knowledge sharing and innovation; a trial-and-error culture eases the pressure on employees to innovate; a user-centric culture optimizes product and service offerings based on customer needs.

3 Case Comparison

This paper uses case analysis method to select the digital transformation practices of Huawei and Microsoft for comparative analysis.

3.1 Huawei's "Agile Organization" Transformation

In 2016, Huawei introduced "Digital Transformation 2.0," transitioning from a traditional telecommunications equipment provider to a "digital ecosystem" company. Huawei formed a "Iron Triangle" cross-departmental team to break down departmental barriers and enhance customer value. The company implemented a "rotating CEO" system to cultivate strategic vision and comprehensive management skills among executives, improving decision-making flexibility. In 2020, Huawei's R&D investment accounted for 15%, with digital business revenue growing by 37%.

3.2 Microsoft's "Agile Organization" Transformation

After Satya Nadella took office in 2014, Microsoft integrated agile management into its corporate culture. The company vigorously developed Azure cloud services, promoting the transition of Office to a subscription model, providing convenience for users and stabilizing cash flow. At the same time, it opened up its ecosystem, no longer limiting itself to the Windows platform. In fiscal year 2023, Microsoft's total revenue reached \$211.9 billion, a 18% increase year-over-year, with the Intelligent Cloud division making significant contributions, pushing the market value over \$2.5 trillion.

3.3 Comparison

Table 1. Comparison of strategic paths: technology-driven vs ecological synergy

unit	Huawei	Microsoft
Core strategy	With technology research and development as the core, build "cloud + AI" infrastructure	With the developer ecosystem as the core, it will build "tools + platform" services
Technology investment	R&D expense ratio in 2022 was 25.1% (\$23.8 billion)	In 2022, the R&D expense ratio was 18.7% (ca. \$20 billion)
Focus areas	5G, Kunpeng chip and intelligent terminal	Azure cloud services, Office 365, GitHub ecosystem
market positioning	Hardware provider => digital solution provider	Software monopolists => cloud and AI enabled platforms

As shown in Table 1, Huawei focuses on technology research and development to build "cloud + AI" infrastructure, with a R&D expense ratio of 25.1% in 2022, concentrating on areas such as 5G, transitioning from a hardware supplier to a digital solutions provider. Microsoft, on the other hand, centers its efforts on developer ecosystems to create "tools + platform" services, with a R&D expense ratio of 18.7% in 2022, focusing on Azure cloud services and other areas, shifting from a software monopolist to a cloud and AI empowerment platform. Huawei maintains a strong execution culture, relying on executive rotation and concentrated efforts to solve problems; Microsoft promotes decentralized autonomy, granting teams high levels of independence. In terms of commonalities, both are centered around digital platforms: Huawei focuses on "cloud + AI"

infrastructure, while Microsoft builds "tools + platform" services, essentially empowering customers through technology. High R&D investment: both had R&D expenses exceeding 18% in 2022, reflecting a long-term commitment to technological innovation. However, there are differences in core strategies and market positioning: Huawei emphasizes independent technology development, transitioning from a hardware supplier to a digital solutions provider, whereas Microsoft leans more towards ecosystem collaboration, moving from a software monopolist to a cloud and AI empowerment platform. The fundamental reason for this difference is that Huawei originated as a telecommunications equipment company, relying on hardware revenue, and its choice of technology-driven growth stems from B2B characteristics and geopolitical pressures, necessitating the construction of a moat through self-developed technologies; Microsoft, leveraging WinDows historical advantage is to rely on software subscription, turn to ecological integration, form a closed-loop ecology, and reduce customer migration costs.

Table 2. Table captions should be placed above the tables.

unit	Huawei	Microsoft
organization structure	The "iron triangle" matrix structure	Decentralized small teams
decision mechanism	Rotating CEO system	Flat authority (middle managers have direct decision-making power)
Collaboration approach	Cross-departmental "war room" mechanism (e.g., 2012 laboratory and product line collaboration)	Cross-functional "Squad" teams (developers, product managers, designers working directly together)
Agile tools	Develop "iMasterNCE" network management system internally	Use open source tool chains such as Jira and AzureDevOps

As shown in Table 2, Huawei adopts a "iron triangle" matrix structure and a rotating CEO system, coordinating through cross-departmental "war rooms." Microsoft, on the other hand, employs a "decentralized" small team structure and a flat authorization system, collaborating through cross-functional "Squad" teams and using open-source tool-chains. The common point between the two is their continuous high investment in research and development, with a focus on cutting-edge areas such as AI and cloud computing. However, there are differences in their technical fields and investment models. Huawei primarily focuses on tackling underlying technologies like 5G and chips, due to external sanctions and acquisitions at the time, which required ensuring supply chain security; Microsoft, meanwhile, mainly integrates cloud services and developer tools, lowering the entry barrier for developers through standardized tools, thus ensuring ample cash flow.

Table 3. Path of cultural reshaping: crisis awareness drive vs growth thinking transformation

unit	Huawei	Microsoft
Cultural core	"Wolf culture" + "crisis awareness"	The "growth mindset" replaces the "fixed mindset" assessment system
personnel encouragement	Virtual restricted shares	Equity incentive + learning resource subsidy
Resistance management	Strengthen grassroots execution through "the war of the squad leader"	Use "hackathons" to overcome technical team resistance
Customer orientation	"Customer focus" is written into the Basic Law of the Huawei	"Developer first" (Azure prioritizes developer needs)

As shown in Table 3, the core of Huawei culture is "wolf culture" and "crisis awareness." It uses virtual restricted shares to motivate employees, strengthens grassroots execution, and adheres to the principle of "customer-centricity." Microsoft replaces its fixed mindset evaluation system with a growth mindset, employing equity incentives and learning resource subsidies. It uses "hackathons" to overcome resistance and emphasizes "developers first." In terms of commonalities, both focus primarily on customer orientation and innovate incentive mechanisms. However, Huawei advocates for wolf culture, motivating employees through virtual restricted shares, and employs the "war of squad leaders" in resistance management. Its customer base focuses on the top 50 operators, fundamentally because Huawei faces survival pressure and needs to break through technological blockades. On the other hand, Microsoft adopts a growth mindset, providing learning subsidies to stimulate employee innovation, and uses the "hackathon" model, with a customer base of 3 million developers. The reason is that Microsoft can tolerate trial and error due to its cash flow and needs continuous skill updates to drive ecosystem innovation.

Table 4. Comparison of transformation results

unit	Huawei	Microsoft
Revenue growth rate	The compound growth rate from 2016 to 2021 was 14.3% => 19.5% in 2022 (due to the impact of US sanctions)	Compound growth rate 2016-2023 18.2% (Azure contribution over 60%)
Digital business share	Consumer business accounted for 33% in 2022	In 2023, intelligent cloud business will account for 38%
Number of patents developed	More than 130,000 patents have been applied for globally	More than 80,000 patents have been applied for globally

Employee turnover rate	The management turnover rate was 8.7% in 2022	The retention rate of technical team in 2023 is 92%
------------------------	---	---

As shown in Table 4 from 2016 to 2023, Huawei's revenue compound annual growth rate was 14.3% from 2016 to 2021, but it dropped by 19.5% in 2022 due to sanctions. In 2022, consumer business accounted for 33%, with numerous patents, and the management turnover rate was 8.7%. Microsoft's revenue compound annual growth rate from 2016 to 2023 was 18.2%, with its intelligent cloud business accounting for 38% in 2023. Although Microsoft has many patents, it falls short of Huawei, and its technical team retention rate was 92% in 2023.

3.4 Case Comparison Conclusions

The practices of Huawei and Microsoft show that Huawei is more technology-driven, with advantages including high technical barriers, strong delivery capabilities in complex B2B scenarios, and outstanding crisis response capabilities. The disadvantages include heavy R&D investment, strong organizational rigidity, and significant geopolitical impact. On the other hand, Microsoft leans towards an ecosystem collaboration model, with advantages such as rapid ecosystem expansion, low marginal costs, and broad coverage of small and medium-sized enterprises. The disadvantages include reliance on cooperation for core technologies, difficulty in meeting deep customization needs with standardized products, and high complexity in ecosystem management. The different transformation models of the two companies are driven by their industry characteristics and significantly influenced by their corporate DNA. For different types of companies, especially those that are technology-intensive (semiconductors, high-end equipment), the Huawei technology-driven model is more suitable, with R&D investment not less than 15% of revenue and patent layouts focusing on core processes. For ecosystem platform companies (internet), the Microsoft ecosystem collaboration model is more suitable, with API openness exceeding 80% and subscription-based cash flow management required. For intermediate companies (smart manufacturing, healthcare IT), a hybrid model is needed, involving independent development of core modules and adopting an agile iron triangle organizational structure.

There is no absolute advantage or disadvantage in every transformation path, only whether it is suitable or not. Enterprises need to choose the transformation path based on three elements: industry competition pattern, technology maturity and organizational genes, and dynamically adjust the mixed ratio with each stage.

4 Key Success Factors and Inspiration

In the wave of digital transformation, the key factors for successful corporate transition deserve in-depth exploration. Leaders play an extremely important role, serving as the core drivers of transformation. On one hand, leaders must have forward-looking technical vision and actively promote technological upgrades within the company. For example, timely introduction of advanced digital tools and technologies can help optimize business processes and enhance operational efficiency. On the other hand, leaders need

to foster an open and inclusive corporate culture. In such a cultural environment, employees can freely exchange ideas, share experiences, and boldly try new things, injecting vitality into corporate innovation.

Employees are also key to the transformation, granting them autonomy and more decision-making power at work can boost their enthusiasm and creativity. At the same time, enhancing digital skills is essential. As digital transformation progresses, employees need to master new technologies and tools. Through training, employees can better adapt to new job requirements, reduce resistance to change, and thus engage more actively in the transformation process.

Current research primarily focuses on the digital transformation of medium and large enterprises. However, for the vast number of small and medium-sized enterprises (SMEs), the applicability of these experiences remains to be verified. SMEs have relatively limited resources and strong market adaptability, which sets them apart from their larger counterparts. Future efforts should concentrate on exploring transformation models suitable for SMEs, helping them find their way in the wave of digitalization and develop steadily. The rise of artificial intelligence has brought new opportunities for organizational change. Its powerful data processing and intelligent analysis capabilities can optimize corporate decision-making processes and enhance organizational collaboration efficiency. Future research could focus on the potential applications of AI in organizational change, exploring how to deeply integrate AI technology with organizational transformation to open up new paths for corporate transition and provide more innovative solutions.

5 Conclusion

This study reveals the core role of agile management in organizational change through case analyses of Huawei and Microsofts digital transformation. The research finds that despite adopting different transformation paths—Huawei with "technology-driven" at its core, achieving breakthroughs through an "iron triangle" structure and a "wolf culture"; Microsoft focusing on "ecosystem collaboration," leveraging flat empowerment and a "growth mindset" culture to drive transformation—both have significantly enhanced their organizational responsiveness through agile management. Specifically:

To drive sustained innovation and efficiency, technology-intensive enterprises should prioritize independent R&D (e.g., Huawei's 5G patent leadership), while ecosystem-focused firms must emphasize open collaboration (like Microsoft's GitHub model); organizationally, shortening decision chains (Huawei's rotating CEO system) and enabling cross-functional teamwork (Microsoft's Squad model) are critical for agility, while culturally, fostering crisis awareness (as seen at Huawei) accelerates breakthrough innovation, and a growth mindset (exemplified by Microsoft) supports continuous evolution.

The core contradiction of digital transformation lies in the conflict between the speed of technological iteration and the inertia of traditional organizations, which includes information lag in hierarchical structures, skill gaps among employees, and cultural

resistance to change. To address this, companies need to build an agile change system that integrates "strategy-organization-culture".

This study extends agile management from the IT sector to pan-industrial digital transformation scenarios, enriching dynamic capability theory in organizational change, while offering differentiated transformation paths—technology-driven enterprises can adopt Huawei's high-execution model, and ecosystem-platform firms can emulate Microsoft's developer collaboration strategy—ultimately advancing the deep integration of the digital and real economies in alignment with China's 14th Five-Year Digital Strategy. This study extends agile management from the IT sector to pan-industrial digital transformation scenarios, enriching dynamic capability theory in organizational change, while offering differentiated transformation paths—technology-driven enterprises can adopt Huawei's high-execution model, and ecosystem-platform firms can emulate Microsoft's developer collaboration strategy—ultimately advancing the deep integration of the digital and real economies in alignment with China's 14th Five-Year Digital Strategy.

The cases in this study focus on the top enterprises in the technology industry, and their applicability to small and medium-sized enterprises and traditional industries needs further verification. Future research can focus on the following directions:

This research explores SME adaptation models by identifying lightweight, agile transformation paths under resource constraints; investigates AI-enabled organizational change through the impact of generative AI (e.g., large language models) on decision-making and cultural evolution; and conducts industry-specific analysis to compare digital transformation variations across sectors such as manufacturing and finance.

Digital transformation is not a single technological upgrade but a systematic restructuring of organizational capabilities. Companies need to choose their path of change based on their own DNA and continuously iterate agile capabilities in dynamic competition. This study provides a theoretical framework and practical guidance for this process, but the long-term effects of digital transformation still require ongoing observation and in-depth exploration.

References

1. International Data Corporation: The digitization of the world: From edge to core. IDC. <https://www.idc.com/getdoc.jsp?containerId=US48106221>, last accessed 2021/01/01
2. Gartner: Cloud adoption trends 2023. Gartner Research. <https://www.gartner.com/en/information-technology/insights/cloud-strategy>, last accessed 2023/01/01
3. McKinsey & Company: Unlocking success in digital transformations. McKinsey Digital. <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/unlocking-success-in-digital-transformations>, last accessed 2022/01/01
4. Boston Consulting Group: Agility in the age of digital disruption. BCG. <https://www.bcg.com/publications/2023/agility-in-digital-disruption>, last accessed 2023/01/01
5. World Economic Forum: The future of jobs report 2022. WEF. <https://www.weforum.org/reports/the-future-of-jobs-report-2022>, last accessed 2022/01/01

6. Deloitte: Cultural challenges in financial services transformation. Deloitte Insights. <https://www2.deloitte.com/us/en/insights/industry/financial-services/financial-institutions-culture-transformation.html>, last accessed 2021/01/01
7. Leonard-Barton, D.: Core capabilities and core rigidities: A paradox in managing new product development. *Strateg. Manag. J.* 13(S1), 111–125 (1992)
8. Zeng, D., Cai, J., Ouyang, T.: Digital transformation research: Integration framework and future prospects. *Foreign Econ. Manag.* 43(5), 63–76 (2021)
9. Kotter, J.P.: Accelerate! How the most innovative companies capitalize on today's rapid-fire strategic challenges – and still make their numbers. *Harv. Bus. Rev.* (2012)
10. Teece, D.J.: Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strateg. Manag. J.* 28(13), 1319–1350 (2007)
11. Teece, D.J., Pisano, G., Shuen, A.: Dynamic capabilities and strategic management. *Strateg. Manag. J.* 18(7), 509–533 (1997)
12. Bass, B.M., Riggio, R.E.: Transformational leadership. 2nd edn. Psychology Press, New York (2006)
13. Zhang, X.: Leadership of senior managers in Chinese enterprises during the transition period: A study report. In: Center for Leadership and Motivation Research, Cheung Kong Graduate School of Business (2019)

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

