Ecosystem Empowerment and Data-Driven Approach: The Impact of Xiaomi Group's Digital Transformation on its Financial Performance

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Abstract. Under the background of the vigorous development of the global digital economy and the accelerated transformation and upgrading of China's manufacturing industry, the financial value of enterprise digital transformation has become increasingly prominent, which has become the central issue of enterprise strategic decision-making and academic research. This paper selects the technology industry giant Xiaomi group as a typical case, and uses the single case longitudinal research method to carry out in-depth analysis. This paper reviews the digital transformation strategy of Xiaomi group since its establishment in 2010, especially after its initial public offering, and explores the driving factors, specific implementation paths and internal mechanisms behind it, as well as how these strategic measures affect financial performance. Based on a detailed trend analysis of financial data from 2018 to 2024, the study found that digital transformation had a significant and positive impact on financial performance through three key paths, namely "cost reduction and efficiency improvement", "income creation and value creation" and "decision optimization", which were specifically reflected in the significant improvement of inventory elasticity, the substantial improvement of operational efficiency, the steady growth of overall gross profit margin and the continuous enhancement of future competitiveness.

Keywords: Digital Transformation, Financial Performance, Xiaomi Group, Ecosystem, Smart Manufacturing.

1 Introduction

Currently, the Fourth Industrial Revolution---centered on big data, artificial intelligence, and the Internet of Things---is reshaping the global industrial landscape. "The 'digital economy' has become a national strategy in China, and both traditional manufacturing companies and technology firms are facing the urgent challenge of digital transformation. Digital transformation refers to the process by which companies use digital technologies to fundamentally change the way they create and deliver value, involving comprehensive changes to strategy, operations, organization, and even culture [1]. Early empirical research in the academic community identified a "productivity paradox," namely that IT investments did not immediately translate into

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productivity gains. However, most studies in recent years have shown that digital transformation has a positive impact on corporate performance, though this relationship often exhibits significant time-lag and nonlinear characteristics [2, 3]. In the early stage, high investment may put pressure on profits, while in the long term, it releases dividends through efficiency improvement and new market development [2]. According to existing research, its impact mechanism mainly follows three paths: cost reduction and efficiency improvement, revenue generation and value enhancement, and decision optimization and risk management. These studies provide a macro framework and empirical evidence for understanding the value of digital transformation, but lack in-depth case analysis on the micro mechanism, the differentiated financial impact of different transformation paths, and the practice in specific industry leaders [4].

Xiaomi Group, as a typical representative of China's digital economy era, has a development history closely intertwined with digitalization. From a mobile phone company that started with MIUI software and internet marketing, it has grown into an ecosystem-based technology enterprise spanning smartphones, smart hardware, and internet services. From its business models of hardware, new retail, and internet services to its core strategy of "Mobile x AIoT," every step bears the profound imprint of digitalization. Therefore, this study uses Xiaomi as a case study to systematically analyze the strategic trajectory and key events of Xiaomi's digital transformation, opening the "black box" of how digital transformation impacts corporate financial performance. Based on this, exploring how digital transformation creates corporate value, especially how it translates into quantifiable financial performance, not only provides a rich and concrete sample for academic research but also offers a realistic reference for many companies seeking transformation in terms of strategic paths and financial effects, possessing both theoretical value and practical significance.

2 Analysis of the Strategic Drivers and Key Paths for Xiaomi Group's Digital Transformation

2.1 Xiaomi's Digital Transformation Has Gone Through Three Stages of Evolution

From 2010 to 2014, Xiaomi took the MIUI operating system as the core, accumulated original data and fans through user community operation, established the Internet gene of "software-defined hardware", and laid the foundation for hardware product definition and marketing. From 2015 to 2019, it took mobile phones as the core, and quickly incubated a group of smart hardware products through the ecosystem chain model and built an AIoT platform[5]. At the same time, it vigorously laid out "Xiaomi Home" offline stores, explored new retail, completed the online and offline integrated layout, and data began to feed back into product iteration and supply chain[6]. From 2020 to the present, facing global supply chain fluctuations and cost pressures, Xiaomi launched the "smart manufacturing" strategy, built "lights-out factories", improved the digitalization and flexibility of the production end, deepened the "mobile phone x AIoT" strategy, strengthened the data interconnection and service integration within the

ecosystem, and expanded into new fields such as smart electric vehicles to build a "people, car and home full ecosystem"[7].

2.2 Xiaomi's Strategic Motivations

First, Xiaomi's hardware business is breaking through industry ceilings with extremely low profit margins, seeking a second and third growth curve for sustainable growth. Second, facing competitive pressure in the red ocean market of smartphones, it maintains its market share through ecosystem synergy and differentiated user experience. Third, it seizes the historical opportunity of the maturity of mobile internet, IoT, big data, and AI technologies to redefine smart living. Finally, it meets consumers' growing demand for cross-device intelligent collaboration and seamless experiences.

2.3 Transformation Path

Analysis of Xiaomi's key transformation path reveals that it has reformed its product development, production supply, marketing, and organizational ecosystem with digitalization as the core. For product development, the MIUI system insists on rapid updates and optimizes the experience based on massive user behavior data [8]. The development of ecosystem products adopts the "incubation and empowerment" model, with Xiaomi providing data, channel, and supply chain support, achieving efficient digital expansion of products; for production supply, the "lights-out factory" in Beijing is an experimental base, realizing full-process automation and digital management of production. Through the big data platform, upstream suppliers and downstream channels are connected to achieve demand forecasting, intelligent production scheduling, and inventory visualization, improving the resilience of the supply chain [9]; for marketing, "Xiaomi Home" serves as an offline traffic entrance and data touchpoint, connecting with the online Xiaomi Mall data to achieve unified user profiles, inventory sharing, and precise marketing, improving the efficiency of omnichannel operations; for organizational ecosystem, the MIUI and AIoT platforms are open to developers and ecosystem companies, forming an "empowerment" ecosystem. Under the premise of compliance, user data flows within the ecosystem to improve products, recommend services, form a value loop, and support the expansion of new businesses such as automobiles.

3 Analysis of the Impact of Digital Transformation on Xiaomi's Financial Performance

3.1 Overall Financial Performance Trend Analysis (2018-2024)

Looking at the vertical trend, Xiaomi’s financial structure has undergone a profound and positive transformation[10]. Revenue grew from RMB 174.9 billion in 2018 to RMB 365.9 billion in 2024, with a compound annual growth rate of 13.1%. More importantly, the revenue and profit structure has been optimized. The proportion of Internet service revenue to total revenue steadily increased from 9.1% in 2018 to 9.3%

in 2024. The proportion of IoT and lifestyle consumer product revenue also increased significantly. As the gross profit margin of Internet services has remained at an extremely high level for a long time, it has become the core engine that has driven the company's overall gross profit margin to increase significantly from 12.7% in 2018 to 20.9% in 2024[11].

3.2 Financial Impact of Different Pathways

Cost Reduction and Efficiency Improvement Path. Against the backdrop of the global supply chain experiencing multiple challenges, such as the pandemic and shortages of core components, Xiaomi has demonstrated strong inventory management resilience through data-driven supply chain collaboration and demand forecasting[12]. In 2024, while expanding its revenue scale, its inventory control remained robust, reflecting the value of the digital supply chain in a complex environment. Cost control efficiency: Despite the company's continued large-scale investment in R&D, market expansion and global channel construction, its overall operating expense ratio was effectively controlled. In 2024, the group's overall operating expense ratio decreased by 1.0 percentage point year-on-year to 15.0%, of which the operating expense ratio of the "Mobile x AIoT" segment was 12.6%, reflecting the achievements of digital operation in improving human efficiency and marketing accuracy.

Revenue Generation and Value-Added Path. First, the structural growth of high-margin businesses. This is the most direct and profound impact of digital transformation on Xiaomi's financial performance. Internet service revenue not only maintained its significant share, but its absolute value increased from RMB 16 billion in 2018 to RMB 34.1 billion in 2024, representing a CAGR of 13.4%. This business includes advertising, games, fintech, and internet TV, as shown in Figure 1. Its growth relies entirely on the scale and stickiness of MIUI's global monthly active users—a digital asset. Second, the user acquisition, premiumization, and synergistic value of the hardware business. The strategic value of smartphones and IoT hardware lies in acquiring users, accumulating data, and serving as traffic entry points for internet services. Simultaneously, the premiumization strategy guided by digital insights has yielded significant results, as shown in Figure 2. The average selling price of smartphones increased from RMB 959.1 in 2018 to RMB 1,138.2 in 2024. In 2024, in the Chinese mainland market, the shipment volume of high-end smartphones priced at RMB 3,000 and above reached 23.3%, improving the profitability of the hardware business. Third, in terms of ecosystem synergy value, through the "Mobile x AIoT" strategy, a massive number of devices are connected at a relatively low marginal cost, reaching 905 million by the end of 2024, expanding the user base and scenarios, and providing a solid foundation for the monetization of Internet services.

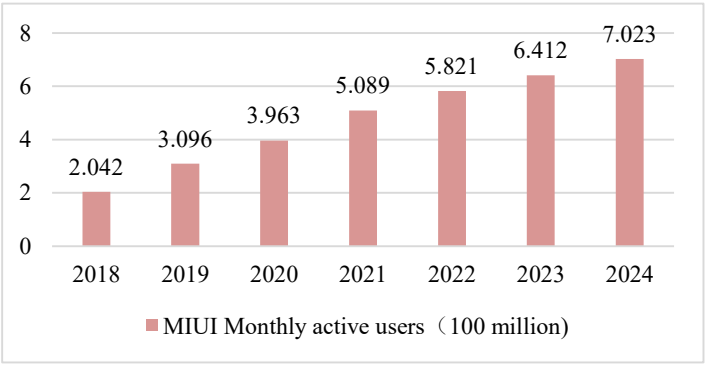


Fig. 1. MIUI Monthly Active User Scale Chart

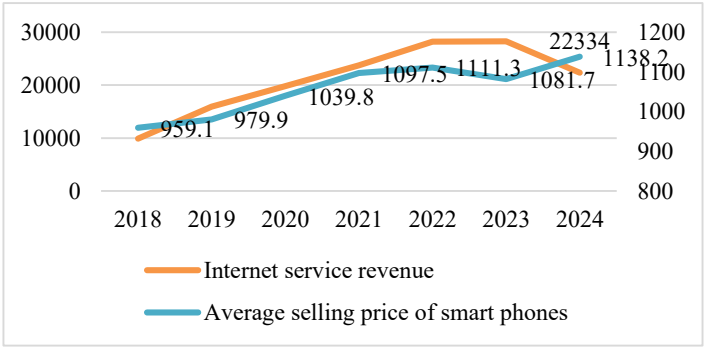


Fig. 2. Internet service revenue and average selling price of smartphones growth chart

Decision Optimization and Asset Empowerment. Regarding strategic R&D investment, the company's R&D investment increased significantly from RMB 5.8 billion in 2018 to RMB 24.1 billion in 2024, representing a CAGR of 26.8%. These investments focus on building long-term technological moats, such as chips, imaging, operating systems, AI big data models, and smart cars. These are key digital asset investments for the future, impacting profits in the short term but aiming to gain long-term competitiveness. Furthermore, thanks to efficient operations and a healthy business model, Xiaomi's operating cash flow has remained consistently positive, providing ample internal funding support for its large-scale R&D investment and strategic investments, reducing reliance on external financing, and maintaining a robust asset-liability structure. For ecosystem-based asset-light expansion, the ecosystem chain model is essentially an "empowering" asset-light expansion, rapidly enriching the product matrix with relatively low fixed asset investment and improving overall asset operating efficiency.

3.3 Cross-analysis of key transformation events and financial inflection points

Event 1: Deepening of the "Smartphone x AIoT" strategy and advancement of the high-end strategy (from 2019 onwards). This strategy clearly defined the multiplicative effect of ecosystem synergy. Subsequently, the number of IoT device connections, internet service revenue, and the proportion of high-end smartphone shipments all entered an upward trend, with a clear trend of financial structure optimization. The high-end strategy directly boosted the ASP and gross profit of smartphones, a direct manifestation of the "revenue generation and value enhancement" path on the product side.

Event 2: Significant increase in smart factory production and R&D investment (after 2020). In the short term, capital expenditures and R&D expenses were substantial, impacting current profits. However, in the long term, this was a crucial step in improving high-end product manufacturing capabilities, ensuring supply chain security, and exploring smart manufacturing solutions, aiming to improve long-term profitability and asset quality, and empower the smart car business.

Event 3: Investment and mass production of smart electric vehicle business (2021-2024). This is the ultimate extension of digital transformation into a "people, vehicle, home, and whole ecosystem." Despite the huge short-term investment, it has successfully opened up a new trillion-yuan market, delivering more than 136,000 vehicles and generating revenue of 32.1 billion yuan in 2024. This demonstrates the potential to replicate digital capabilities such as software, AI, intelligent manufacturing, and user operations across different scenarios, and represents a strategic asset layout for the future.

4 Conclusion

This study draws the following conclusions through an in-depth case analysis of Xiaomi Group: First, digital transformation has had a significant and far-reaching positive impact on Xiaomi's financial performance. Although the transformation process is accompanied by continuous strategic investment, the systematic reshaping of the business model and operating system has brought the company steady revenue growth, structural improvement in profitability, optimization of asset efficiency, and strategic positioning for the future. Second, the impact mechanism is clearly achieved through three paths: "cost reduction and efficiency improvement", "revenue generation and value enhancement" and "decision optimization". In the Xiaomi case, these are specifically manifested as: the cost reduction and efficiency improvement path of maintaining operational resilience and effectively controlling expense ratios in a complex environment through data-driven supply chain and retail network. The revenue generation and value enhancement path of continuous growth in Internet service business driving the overall gross profit margin and realizing the high-end of hardware business through digitalization; and the decision and asset optimization path of taking users and ecosystem as the core, strong cash flow supporting huge R&D investment, strategic investment in future businesses such as smart cars, and jointly building long-term competitiveness and risk buffer.

The recommendations are divided into three aspects. At the strategic level, digital transformation should be elevated to the core strategy of the enterprise, and its ultimate goal should be clearly defined as creating new customer value and business models, rather than simply upgrading technology. At the path level, enterprises can learn from Xiaomi's evolution path: first achieve a digital breakthrough in one link of the value chain, then expand to product R&D, manufacturing, and supply chain management; ultimately, vertically build an open platform or collaborative ecosystem to achieve networked multiplication and diversified monetization of value. At the financial level, managers should adopt a long-term perspective and a structural analytical framework for understanding the financial impact of digital transformation. Future research can further explore: first, conducting multi-case comparative studies to investigate the differences in the financial impact of digital transformation across different industries and business models; second, employing more refined measurement methods to attempt to quantify the specific financial returns of various digital investments; and third, delving into the impact of digital transformation on non-financial performance such as corporate innovation capabilities and brand value, and its interaction with financial performance.

References

1. Bharadwaj, A., El Sawy, O.A., Pavlou, P.A., Venkatraman, N.: Digital business strategy and value creation. MIS Quarterly Executive 21(2), 123-139 (2022)
2. Li, L., Su, F., Zhang, W., Mao, J.: Digital transformation and firm performance. Technological Forecasting and Social Change 173, 121080 (2022)
3. Chen, Y., Wang, Y., Li, J.: Nonlinear effects of digital transformation. Industrial Marketing Management 102, 12-25 (2023)
4. Zhang, X., Chen, H., Li, Y.: Digital transformation and productivity. Journal of Productivity Analysis 59(1), 45-60 (2023)
5. Nambisan, S., Lyytinen, K., Majchrzak, A., Song, M.: Digital innovation and value creation. Research Policy 51(1), 104-121 (2022)
6. Verhoef, P.C., Broekhuizen, T., Bart, Y., et al.: Digital transformation: a multidisciplinary reflection. Journal of Business Research 122, 889-901 (2022)
7. Jacobides, M.G., Cennamo, C., Gawer, A.: Ecosystems in the digital economy. Strategic Management Journal 44(1), 56-78 (2023)
8. Ivanov, D., Dolgui, A.: Digital supply chain resilience. International Journal of Production Research 60(1), 1-15 (2022)
9. Hanelt, A., Bohnsack, R., Marz, D., Antunes Marante, C.: A systematic review of digital transformation. Journal of Management Studies 59(4), 1159-1197 (2022)
10. Dubey, R., Gunasekaran, A., Childe, S.J., et al.: Big data analytics and firm performance. Annals of Operations Research 319, 1-25 (2023)
11. Kraus, S., Jones, P., Kailer, N., et al.: Digital transformation and financial performance. Journal of Business Research 142, 744-756 (2022)
12. Shen, W., Zhang, Q., Zhang, H.: Digitalization and firm profitability. Technovation 119, 102-112 (2023)

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