Digital transformation of financial management in service-oriented enterprises

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Abstract: This paper focuses on the reform and transformation of corporate financial management in the digital intelligence wave, aiming to explore the adaptation path and practical value of financial management digitalization. It first analyzes digital intelligence's reshaping effect on financial management and traditional models' shortcomings to clarify the necessity of digital transformation. Then, it sorts out literature, summarizes findings in fields like the adaptation of financial management models to digitalization and digitalization's advantages, and points out current research's limitation of focusing on internal corporate perspectives while neglecting external environments. Subsequently, taking Alibaba Group as a case, it dissects the background of its "New Finance" transformation and elaborates on three key technical models: digital intelligence-driven efficient management, group-based vertical collaboration, and global remote linkage. Finally, it proposes intelligent finance development strategies from government, enterprise, and information levels—including the government strengthening top-level design, enterprises centering on needs to consolidate foundations, and building an internal-external linked information system. The research shows enterprises must balance the times' trend and internal driving forces, and realize high-quality financial management upgrading through technological iteration, talent cultivation, and safety control, providing reference for similar enterprises' digital transformation.

Key words： Digitalization; Financial Management; Financial Management Model

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Introduction

Driven by the wave of digital intelligence, the reform and transformation path of financial management has broken the boundaries of traditional data processing. It can efficiently integrate internal and external structured and unstructured data of enterprises, establishing a full-link data support system for financial analysis. However, the shortcomings of the traditional financial management model have become increasingly prominent in this context: slow data processing efficiency makes it difficult to cope with the rapid influx of multi-source data; manual operation models are not only inefficient but also prone to errors; analysis methods are limited to reviewing historical data, lacking predictions for future trends; the existence of "information silos" hinders the effective connection between business and financial data; traditional risk control methods struggle to prevent new types of risks; and there is a significant gap between the existing skills of financial personnel and the demands of digital intelligence. Under such circumstances, the digital transformation of finance has become an inevitable choice for enterprises to overcome difficulties. Enterprises need to build a unified data middle platform, break data barriers, realize real-time integration of business and financial data, and provide a full-link data basis for management decisions. Additionally, digital transformation promotes multi-dimensional value upgrading of financial management, which not only meets the compliance requirements of regulatory authorities but also further enhances the trust of the external market in enterprises.

1 Literature Review

1.1 Research on the Adaptation of Financial Management Models to Digitalization

Hao Liuyan(2025) points out that traditional financial processes suffer from slow response and inefficient data processing, and it is necessary to formulate adaptation strategies in combination with digitalization, with the goals of "fast

data processing and effective risk response"[1]. Zhang Youqin(2025) proposes that the financial shared service center is the key path—by building a unified data platform, it can integrate business and financial information, reduce information silos, realize the integration of fund scheduling, cost accounting, and risk control, and promote the integration of business and finance[2]. Meng Fan(2025) emphasizes that the implementation of financial sharing requires personnel transformation and team optimization. Traditional financial personnel need to transform into "data-driven consultants", and enterprises should carry out special training, break traditional structures, and build new teams centered on data analysis and risk control[3]. Zhang Junmiao(2025）compares the two types of models: the traditional model focuses on "post-event recording" and relies on manual experience, while the digital model forms a closed loop of "pre-event prediction - in-event control - post-event analysis" and improves the scientificity of decision-making and the forward-looking of risk control based on data models[4]. Li Ran（2025）suggests that model innovation should first start with concept renewal—helping management break through traditional thinking through professional journals and digital training, establishing data financial analysis teams, and promoting the transformation of financial functions from back-end accounting to front-end decision support[5].

1.2 Research on the Advantages of Financial Management Digitalization

From the perspective of enabling effects, Li Xueshan (2025) points out that digitalization promotes the refinement and intellectualization of finance[6]. The business-finance integration system can monitor capital costs in real time and automatically issue risk warnings. Li Jianghua (2025) proposes that finance transforms into a "data-driven decision-making type", with basic work automated, and it is necessary to cultivate interdisciplinary talents. From the perspective of scenario adaptation[7].Chen Sidi（2025） believes that enterprises in clusters need to build dynamic risk models and early warning systems to deal with supply chain risks[8]. Huang Qiran（2025） suggests that under the background of new-quality productive forces, enterprises should build financial shared service platforms using cloud computing, big data, and AI to adapt to the needs of industrial upgrading[9].

Current academic findings on financial management models and their digitalization are rich, with consistent core views and distinct "practice-oriented" features. Most studies focus on enterprises' practical financial pain points, offer practical suggestions, and provide direct references for financial upgrading. In model research, scholars generally agree the traditional "accounting-oriented" model fails to adapt to digital economy development and new-quality productive forces cultivation, and must transform into "financial sharing" and "decision support" models—with paths covering financial process optimization, organizational structure adjustment, and financial personnel role upgrading.

2 Case Analysis of Financial Management Digital Transformation

2.1 Background of Financial Digital Intelligence at Alibaba Group

As a typical case of financial digital intelligence among Chinese Internet enterprises, Alibaba Group was founded in Hangzhou in 1999. It has secured its industry position with diversified businesses—core ones including online sales, third-party payment and cloud computing, plus key platforms like Taobao, Tmall and Alibaba Cloud. In 2019, it topped domestic e-commerce platforms with a 55.9% online sales share. As its scale grew rapidly and business diversified, the traditional financial management model fell short of development needs, so Alibaba launched the "New Finance" transformation in 2015. Beyond simple tech upgrading, this transformation aims to reshape the financial management system via digital intelligence, strengthen financial support for business, and guarantee sustainable development.

2.2 Financial Digital Intelligence Technology Models at Alibaba Group

2.2.1 Digital Intelligence-Driven Efficient Management

Alibaba's efficient financial management stems from its accurate grasp of digital economy-era market information features. In an "instant iteration, massive explosion" information environment, rapid information-to-value conversion directly impacts decision-making competitiveness. To this end, it leverages its global Internet ecosystem to build a multi-dimensional info collection network, remitting scattered market and business data to a central database in real time. In data processing and financial operations, Alibaba uses AI algorithms for data cleaning, classification and correlation analysis, and introduces "financial robots" to replace manual processes—from invoice verification and voucher entry to automatic

multi-dimensional financial statement generation, the whole process achieves "zero manual intervention, second-level response". This model avoids manual accounting errors, frees financial staff from repetitive work to focus on high-level tasks, and ultimately realizes dual breakthroughs in "efficiency improvement" and "value creation".

2.2.2 Vertical Collaboration under Group Operation

Targeting the common pain points of large enterprise groups—"numerous branches, complex business lines, and difficult financial collaboration"—Alibaba's vertical management model breaks the limitations of the traditional "decentralized" management model. In practice, each branch does not need to establish an independent financial team; it only needs to submit reimbursement materials to the headquarters in accordance with standard procedures. The headquarters processes basic work such as accounting and tax declaration in batches through financial robots, which not only unifies the financial accounting standards of the entire group but also avoids management loopholes caused by differences in the professional capabilities of branches. In addition, the group uses financial software to collect revenue and expenditure data of each business unit in real time and dynamically monitor the flow of funds and cost composition. On the one hand, this accurately reduces the hidden costs caused by cross-departmental communication and repeated reviews; on the other hand, it realizes vertical supervision between "headquarters and branches", ensuring that financial resources are allocated to high-yield businesses and effectively improving the overall resource allocation efficiency of the group.

2.2.3 Remote Linkage in Global Layout

Facing the "cross-regional and multi-format" operation pattern under its global layout, the traditional management model relying on offline communication is prone to problems such as "information lag and decision-making breakdown". However, the integrated remote management platform built by Alibaba through cloud technology has successfully broken the constraints of time and space. Relying on this platform, the headquarters can retrieve the financial data of each branch in real time and grasp the capital turnover and profit status of global businesses through a visual system. Information transmission and decision-making deployment between cross-departments and cross-companies can also be synchronized in real time, avoiding the inefficiency of traditional email and meeting communication. More importantly, Alibaba has fully transformed cash transactions into data streams. Through online payment and intelligent settlement systems, it realizes the real-time linkage of "capital flow - data flow - business flow", which not only accelerates the efficiency of capital turnover but also provides accurate data support for remote decision-making. This ensures that the headquarters can "see, manage, and adjust quickly" global businesses, guaranteeing the timeliness and effectiveness of the implementation of corporate strategies.

3 Multi-Subject Promotion Paths and Strategic Suggestions for the Development of Intelligent Finance

3.1 Government Level: Strengthening Top-Level Design and Ecological Guidance

As a guide for the intelligent finance industry, the government needs a long-term systematic support framework. First, make phased, differentiated policies based on intelligent finance tech evolution and enterprise reality, clarifying goals and paths for large leading enterprises and Small and Medium-sized Enterprises at different stages to avoid "one-size-fits-all" measures. Second, cultivate industry benchmarks: select enterprises with innovative models and representative technologies, and use typical case promotion and resource inclination to form a "benchmark leadership, echelon follow-up" pattern. Finally, build an intelligent finance info-exchange platform via national media—it popularizes intelligent finance's value to break Small and Medium-sized Enterprises' cognitive barriers and promotes cross-regional advanced practice sharing, stimulating industry transformation initiative.

3.2 Enterprise Level: Focusing on Own Needs and Consolidating the Foundation for Transformation

As the core entity for intelligent finance implementation, enterprises should develop transformation strategies based on "accurate adaptation, steady advancement, talent support". First, in building an intelligent financial system initially, align with business strategies and core needs, avoid blind pursuit of "full tech coverage" or "rapid progress", select entry points scientifically, and implement in modules to synchronize system construction with business development. Second, break the

"closed-door" mindset: benchmark industry cases, learn from leading enterprises' experience and others' failures, and optimize strategies via "external reference + internal iteration" to boost success. Finally, address talent bottlenecks:， meet "financial + IT" interdisciplinary demands by strengthening internal training, recruiting professionals, optimizing talent allocation, and integrating business, professional and strategic finance to support system operation.

3.3 Information Level: Building an Internal-External Linked Information Sharing and Application System

In the context of intelligent finance competition evolving into an "information war", efficient information acquisition, integration and application are key for enterprises to break development bottlenecks. First, broaden international perspective: strengthen exchanges with foreign advanced enterprises, absorb their experience in technology R&D, risk control and scenario adaptation to shorten transformation trial-and-error. Second, boost domestic inter-enterprise collaboration: break information barriers by promoting leading enterprises to open non-core experience, setting up an information sharing reward mechanism and building an industry-level platform to form a "mutual assistance" ecosystem. Third, consolidate internal information foundation: arrange professional teams to sort out internal experience and failure cases, and build an internal database—only by accumulating and reviewing internal experience can a solid foundation for long-term development be laid.

4 Conclusion

As a relatively innovative field at present, intelligent finance is still in the exploration stage. Based on this, this paper takes Alibaba Group as the research object, deeply analyzes the construction logic and practical application model of its intelligent financial system, and combines practical experience to provide targeted suggestions for Alibaba and more enterprises to optimize the implementation path of intelligent finance. Promoting the high-quality development of financial management requires balancing the background of the times and the internal driving forces of enterprises, and the latter is particularly crucial. In the future, enterprises need to make efforts from multiple dimensions: they should not only continue to track the technical trends related to intelligent finance and drive the innovation of management models through technological iteration but also attach importance to the cultivation of interdisciplinary talents to provide human support for model implementation.

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