



The Reshaping Effect and Challenges of Digital Finance on Traditional Financial Formats

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Abstract. The rapid development of digital finance in the digital economy stems from technological innovation, market demand and policy support. This article focuses on the reshaping of the impact of digital finance on traditional financial models and the core challenges it brings. By analyzing the core characteristics of digital finance - such as inclusiveness, efficiency and scenario-based ecosystem integration - and comparing the changes in traditional financial business models and operation systems, This article states that digital finance has driven the transformation of traditional finance in terms of service scenarios, efficiency and ecosystem construction, but also brings challenges in core competitiveness, business profitability and risk management. The inclusiveness and efficiency of digital finance directly affect the business models and operational logic of traditional finance, driving profound reshaping in business, operation and competitive dimensions, such as the onlineization of service scenarios, the diversification of customer acquisition channels and the ecologicalization of the competition landscape. This research is of great significance for traditional financial institutions to grasp the development trend of digital finance and formulate adaptive transformation strategies.

Keywords: Digital Finance, Traditional Finance, Business Model Transformation, Core Competitiveness, Risk Management.

1 Introduction

The integration of digital technology and financial services has given rise to digital finance, which has become an important force driving the transformation of the global financial industry. Against the backdrop of the continuous development of the digital economy, the scale of digital finance has expanded rapidly, and its influence has permeated every aspect of traditional financial services[1]. Digital finance is not a simple extension of traditional finance in the digital domain; rather, it is a new financial model that disrupts the traditional service logic[2]. Studying its impact on traditional financial forms is crucial for traditional financial institutions to achieve sustainable development in the digital age.

Previous studies mainly focused on the development characteristics of digital finance and its role in inclusive finance. For instance, Irikefe, Falahat and Zainudin pointed out that digital-driven financial inclusiveness is conducive to the sustainable

development of small and medium-sized enterprises, but this benefit depends on the enterprises' own level of digital readiness and their ability to dynamically coordinate[3]. However, most existing studies only focus on one aspect of the impact of digital finance and lack a systematic analysis of the overall reshaping effect of digital finance on traditional financial forms and the corresponding challenges[4].

This paper uses theoretical analysis and logical deduction methods to study the impact of digital finance on traditional financial models. First, it summarizes the core operational characteristics of digital finance; then, it systematically elaborates on the reshaping effect of digital finance on traditional financial business models and operational systems; finally, it points out the core issues faced by traditional finance in the context of digital finance development. The overall structure of this paper is as follows: The second part analyzes the core operational characteristics of digital finance; the third part explores the impact of digital finance on reshaping traditional financial models; the fourth part considers the core challenges brought by digital finance to traditional finance; the fifth part presents conclusions and prospects.

2 Core Operating Characteristics of Digital Finance

Digital finance, due to its reliance on digital technology, has developed unique operational characteristics that are different from traditional finance. These characteristics are mainly reflected in four aspects: inclusive services, efficient operation, ecosystem scenarios, and data-driven methods[5].

First, digital finance achieves inclusive services by breaking through the limitations of time and space. Traditional financial services are often restricted by physical outlets and working hours, making it difficult to cover remote areas and low-income groups. Digital finance relies on technologies such as mobile internet to provide users with financial services anytime and anywhere, effectively filling the gaps in traditional financial services[6].

Second, digital finance achieves efficient operation through technological empowerment. By applying technologies such as big data and artificial intelligence, digital finance simplifies business processes such as account opening, credit approval, and payment settlement, reduces manual intervention in the service process, and thereby lowers transaction costs and service thresholds. For example, in credit business, digital finance can complete credit assessment in a short time, its efficiency is much higher than the traditional manual approval model[7].

Furthermore, digital finance builds a closed loop of financial services based on life and industry scenarios. Unlike traditional finance, which focuses on a single financial product, digital finance integrates financial services into scenarios such as e-commerce consumption, travel, and healthcare, enabling users to naturally complete financial transactions in their daily lives and production processes, forming a mutually reinforcing ecosystem of scenarios[8].

Finally, digital finance takes data as the core production factor and optimizes risk pricing and service matching. Digital finance collects and analyzes multi-dimensional user data such as consumption habits and credit records, builds more accurate user

profiles, and then realizes personalized risk pricing and service recommendations. This data-driven model makes financial services more targeted and effectively reduces the information asymmetrical problems in traditional financial services[9].

In summary, these four core operational functions of digital finance support and complement each other: inclusive services expand the coverage of financial services, efficient operation improves service quality and reduces costs, the ecosystem based on scenarios enhances user loyalty and service penetration rate, and the data-driven method provides precise support for the above three functions. These four functions jointly constitute the core competitive advantage of digital finance, making it different from the traditional financial model and laying the foundation for the subsequent transformation of the traditional financial industry.

3 The Reshaping Effect of Digital Finance on Traditional Financial Formats

The development of digital finance not only alters the way financial services are provided but also reshapes the business models and operational systems of traditional finance, and triggers profound changes in the competitive landscape of the financial industry[10].

3.1 Business Model Reshaping

The impact of digital finance on traditional financial business models is mainly reflected in the transformation of liability business, asset business and intermediary business.

In the liability business, digital finance enables traditional financial institutions to broaden their deposit sources and optimize their cost structure. On one hand, digital financial products such as money market funds have attracted a large amount of individual deposits, leading to the phenomenon of "deposit transfer" in traditional commercial banks; on the other hand, traditional financial institutions have launched digital deposit products through online channels, and compared with offline branches, they have reduced the cost of absorbing deposits.

In the asset business, digital finance has digitized credit approval in traditional finance and promoted the downward shift of service targets. By integrating multi-dimensional information including the operation data and transaction processes of small and micro enterprises, digital finance has developed big data risk control models. This effectively solves the problems faced by traditional finance in assessing the credit status of small and micro enterprises, thereby facilitating the downward migration of service targets. Traditional credit business relies on collateral and credit investigation reports, which have high thresholds and slow approval speeds, and are difficult to meet the financing needs of small and medium-sized enterprises and individual entrepreneurs. Digital finance uses big data risk control models to assess the credit status of borrowers, which not only improves the efficiency of credit

approval but also expands credit services to vulnerable groups that traditional finance has not reached.

In the intermediary business, digital finance has promoted the onlineization of payment and settlement in traditional finance, the intelligence of wealth management, and the scene-based sales of financial products. As the core intermediary business of traditional finance, payment and settlement business has been impacted by mobile payment platforms. Traditional financial institutions must accelerate the online transformation of payment business; in the field of wealth management, digital finance has launched intelligent investment consulting services, which prompts traditional financial institutions to upgrade their wealth management business to an intelligent model; in the sales of financial products, traditional financial institutions have begun to integrate product sales into various scenarios, changing the traditional offline sales model[11].

3.2 Operation System Reshaping

Digital finance has also brought profound changes to the operational system of traditional finance, including channel transformation, organizational restructuring, and cost structure optimization.

In terms of channel transformation, traditional financial institutions have shifted from offline models to online models and accelerated the integration of all channels. The physical outlets of traditional finance are gradually becoming lightweight, with their functions shifting from transaction processing to customer service and experience display; online channels have become the core channels for traditional financial institutions to acquire customers and provide services. Traditional financial institutions also promote the integration of online and offline channels to provide users with seamless service experiences[1].

In terms of organizational restructuring, traditional financial institutions have broken down departmental barriers and established a flexible and flat organizational structure to adapt to the rapid innovation of digital finance. The hierarchical organizational structure of traditional finance has a lengthy decision-making chain and low efficiency, making it difficult to adapt to the rapid changes in the digital finance market. To accelerate the launch of digital finance products, traditional financial institutions have set up cross-departmental digital innovation teams, reducing management levels and improving the efficiency of decision-making and execution.

In terms of cost structure optimization, traditional financial institutions have increased their investment in technology, while the proportions of labor costs and operational costs have decreased. To carry out digital financial business, traditional financial institutions have increased their investment in financial technology, including the construction of information systems and the recruitment of technical talents; at the same time, the onlineization of business has reduced the operational and maintenance costs of physical outlets as well as the number of front-line employees, thereby lowering labor costs and operational costs.

3.3 Competitive Landscape Reshaping

The rise of digital finance has broken the traditional monopoly pattern of the financial industry and reshaped the competitive landscape of the financial sector.

In the past, traditional financial institutions, represented by commercial banks, dominated the financial market and the industry competition was relatively mild. The emergence of digital finance introduced a large number of new participants, such as fintech companies and internet platforms. They seized a portion of the market share of traditional financial institutions through innovative products and services, breaking the original monopoly model.

The focus of competition in the financial industry has shifted from single-product competition to competition in scenarios, user experience, and technological capabilities. Traditional financial institutions used to compete by launching similar products; now, the competitiveness of financial institutions depends more on whether they can build a complete scenario ecosystem, provide users with convenient and comfortable service experiences, and master advanced financial technologies.

The concentration of the financial industry has been adjusted. Large financial institutions have integrated into the market by leveraging their resource advantages, while small and medium-sized traditional financial institutions face the pressure of differentiated competition. Large traditional financial institutions have stronger financial strength and technological R&D capabilities and can quickly launch digital financial products covering various scenarios; while small and medium-sized traditional financial institutions cannot compete with large institutions in terms of scale, so they have to seek differentiated development paths, such as focusing on serving local small and medium-sized enterprises[12].

The transformative effects brought about by digital finance have injected new impetus into traditional finance. However, the disruptive changes in technology, model and competition have also posed numerous challenges to traditional finance in terms of core capabilities, profitability and risk control.

4 Core Challenges Brought by Digital Finance to Traditional Financial Formats

Although digital finance has facilitated the transformation and upgrading of traditional finance, it has also posed a multitude of core challenges to traditional financial institutions, such as those concerning core competitiveness, business profitability, and risk management[13].

4.1 Core Competitiveness Challenges

Traditional financial institutions are facing numerous challenges, such as lagging technological evolution, insufficient data governance capabilities, and rigid innovation mechanisms.

Firstly, the technical architecture of traditional finance is rather rigid, making it difficult to adapt to the rapid innovation pace of digital finance. The information

systems of traditional financial institutions were mostly built in the early stages, with complex structures and high renovation costs. It is difficult to respond promptly to the technological innovation demands of digital finance; while digital financial institutions build flexible technical architectures based on technologies such as cloud computing and can rapidly iterate products and services[1].

Secondly, traditional financial institutions have deficiencies in data governance, with insufficient data accumulation, integration, and application capabilities. Digital finance regards data as a core production factor, while traditional financial institutions have limited data sources, mostly only internal customer transaction data, lacking the ability to integrate multi-dimensional external data; at the same time, traditional financial institutions have not established a complete data governance system, which makes it difficult to fully leverage the value of data .

Finally, the innovation mechanism of traditional financial institutions is rather rigid, with a long decision-making chain and low risk tolerance, making it difficult to respond promptly to market demands. Traditional financial institutions have strict risk control systems and cumbersome approval processes for innovative products and services; while digital financial institutions have a higher risk tolerance and can quickly launch innovative products in response to market changes, thereby gaining market initiative[14].

4.2 Business and Profitability Challenges

The development of digital finance has led to the transfer of core business of traditional finance, a reduction in profit margins, and an increase in the risk of customer loss.

Firstly, the basic business of traditional finance, such as payment, wealth management, and microcredit, has been squeezed by digital finance platforms. Mobile payment platforms have occupied the majority of the retail payment market. According to the data provided by the People's Bank of China, as of 2023, the scale of mobile payment transactions in China accounted for 86.2% of the retail payment market. Simultaneously, the revenue from the payment services of traditional commercial banks decreased by 7.8% year - on - year, resulting in a decline in the payment business income of traditional financial institutions; digital wealth management products have attracted a large number of users with low thresholds and high liquidity, diverting the wealth management business of traditional finance; digital microcredit products have met the users' needs for small-scale financing, squeezing the market share of traditional credit business .

Secondly, the marketization of interest rates and the low-cost competition of digital finance have narrowed the profit margins of traditional financial institutions. On one hand, the marketization of interest rates has reduced the net interest yield of traditional financial institutions; on the other hand, digital financial institutions rely on lower operating costs to launch low-cost financial products, forcing traditional financial institutions to lower product returns and service fees, thereby further compressing the profit margins.

Finally, traditional financial institutions are facing a significant aging trend in the age structure of their customers, with the risk of losing young customers. The young customer group is more willing to accept digital financial services because they are familiar with the Internet and pursue convenient services; while traditional financial institutions are lagging in digital transformation, their service models are difficult to meet the needs of young customers, resulting in the continuous loss of young customer groups[15].

4.3 Risk Management Challenges

The integration of digital finance and traditional finance has increased the difficulty of risk management for traditional financial institutions, including the escalation of technical risks, the complexity of risk transmission, and the pressure of compliance adaptation.

Firstly, the digital transformation of traditional finance has led to the escalation of technical risks, such as system security vulnerabilities, cyber-attacks, and data leaks. After the digital transformation, traditional financial institutions rely more on information systems, and system security vulnerabilities may cause business paralysis; hackers' cyber-attacks may steal customer information and funds; the leakage of customer data not only damages the interests of customers but also affects the reputation of traditional financial institutions.

Secondly, the cross-integration of digital finance and traditional finance makes risk transmission more complex, with risks spreading faster across different industries and regions. The businesses of digital finance and traditional finance are highly related. Risk events in a digital financial institution may spread rapidly to traditional financial institutions through business connections; at the same time, the cross-regional nature of digital finance enables risks to spread within different regions in a short period of time, which increases the difficulty of risk prevention and control.

Finally, the innovation speed of digital finance is faster than the update speed of regulatory rules. Specifically, the emerging digital financial forms, such as virtual currencies and decentralized finance (DeFi), have been evolving at a pace of several months or even weeks. In contrast, regulatory rules typically require years of research, consultation, and revision to form a complete framework, resulting in a significant "regulatory lag". When traditional financial institutions launch new related businesses, they often encounter dilemmas such as "having no rules to follow" or "conflicts of rules" - for instance, under the existing regulatory framework, the boundaries between some innovative financial products and illegal financial activities become blurred. If the business scope is not properly defined, it may lead to regulatory penalties or reputational risks, while the traditional financial compliance system is difficult to cover new business scenarios. Digital finance has given rise to a large number of new business models, such as virtual currency trading and cross-border digital payments, which are not covered by traditional financial regulatory rules; traditional financial institutions face the pressure of compliance adaptation when conducting these new businesses, and if they do not act carefully, they are likely to fall into regulatory risks[16].

5 Conclusion

This paper adopts the method of theoretical analysis to systematically expound the core operational characteristics of digital finance and deeply analyzes the reshaping effect of digital finance on the business model, operation system and competitive landscape of traditional finance, as well as the core challenges it brings to traditional finance. The research shows that digital finance has features such as inclusive services, efficient operation, scenario ecosystem and data driven. This has promoted the transformation of traditional finance in terms of diversified sources of deposits, digitalization of credit approval and onlineization of service channels, and has reshaped the competitive landscape of the financial industry; however, at the same time, traditional financial institutions also face challenges such as lagging technology iteration, transfer of core business and complex risk transmission.

In the future, traditional financial institutions should accelerate the transformation of their technical architecture and build flexible digital platforms. They can adopt a matrix-style organizational structure, that is, establish a headquarters-based digital innovation center and form cross-departmental project teams to simplify management levels and enhance decision-making efficiency; At the same time, they can utilize cloud computing and distributed architectures to rebuild the core information system, in order to enhance the flexibility and scalability of the technical platform, thereby adapting to the rapid innovation of digital finance; strengthen data governance, expand data sources and improve data application capabilities; optimize the innovation mechanism, shorten the decision-making chain and improve the ability to respond to market changes. Meanwhile, regulatory authorities should accelerate the improvement of digital finance regulatory rules, clearly define the regulatory boundaries of new digital finance businesses, and create a favorable regulatory environment for the healthy development of digital finance and traditional finance.

This article systematically summarizes the impact of digital finance on traditional financial models, but there are still some limitations. For example, the research is mainly based on theoretical analysis and lacks empirical verification with specific data. In subsequent research, relevant data can be collected to conduct empirical research on the impact of digital finance on the profitability and risk levels of traditional financial institutions, so as to make the research conclusions more persuasive.

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