

How Financial Technology is Redefining Traditional Banks' Competitiveness

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ABSTRACT

The rapid development of fintech is profoundly transforming the competitive landscape of traditional banking. This study examines how fintech redefines the competitiveness of conventional banks, systematically analyzing its structural impacts across three dimensions: services, products, and channels, proposing pathways for enhancing competitiveness through digital transformation. Research findings reveal that: at the service level, fintech improves efficiency through intelligent customer service and automated processes, replacing traditional offline service models; at the product level, big data and artificial intelligence drive credit approval, risk management, and wealth management toward smarter and more precise operations; at the channel level, the rise of digital platforms and scenario-based financial services has reshaped customer engagement methods, undermining the traffic advantages of physical branches. Building on this, the study conducts an in-depth analysis using China Merchants Bank and CITIC Bank as case studies. China Merchants Bank's "AI First" strategy demonstrates how AI can be fully integrated into banking service systems, risk control frameworks, and operational processes, facilitating a transition from digitalization to intelligentization. CITIC Bank's "Xiaotianyuan" enterprise ecosystem platform exemplifies how banks leverage a "free standard edition & ecosystem integration" model to deeply embed financial services throughout corporate operations, including business management, finance, capital allocation, and taxation, transforming themselves from financial product providers into digital ecosystem infrastructure providers. The research findings indicate that fintech is not a disruptor of traditional banks but rather a catalyst for reshaping their competitiveness; traditional banks should achieve a strategic transformation from "passive response" to "active leadership" through systematic innovation in their service, product, and channel ecosystems. This paper provides theoretical insights and practical pathways for the digital transformation of traditional banks.

KEYWORDS

Fintech; Traditional banks; Bank competitiveness; Digital transformation; Ecosystem platform

1. INTRODUCTION

1.1. Research Background

In the current trajectory of social development, economic growth remains the core driver for national progress. Financial technology (Fintech), represented by big data, artificial intelligence, blockchain, and cloud computing, is experiencing rapid advancement and has permeated all sectors of financial services. Technology is profoundly reshaping lifestyles—a phenomenon particularly evident in the era of integrated development between the information society, the Internet of Things, and AI. This trend signals a paradigm shift in technological approaches and structural reconfiguration of financial intermediation functions. FinTech not only transforms how financial services are delivered but also

fundamentally alters traditional banking operational models and market structures. The evolution of the times has given rise to data-driven, automated decision-making FinTech solutions that increasingly impact everything from financial instruments to entire platforms. Traditional banks are witnessing growing challenges: core business processes for corporate and individual clients are transitioning toward data-driven, visualized management; enterprise financial platforms are evolving into sophisticated, interconnected cloud-based systems that significantly streamline analytical workflows; mobile banking and retail wealth management advisors are adopting AI-powered solutions; mobile payment adoption rates continue rising alongside the use of alternative data sources for credit assessments; and new financial intermediaries are emerging amid intensifying industry competition. Currently, fintech has brought about profound transformations in multiple financial service sectors, including credit, payment, wealth management, and insurance. Meanwhile, traditional banks are striving to enhance their competitive positions through digital transformation, technological innovation, and ecological collaboration.

1.2. Problem Statement

Traditional banks demonstrate substantial deficiencies relative to fintech companies in domains such as service convenience, personalized services, and product innovation capabilities. Furthermore, the adoption of fintech is reconstituting the competitive landscape of the banking sector, compelling traditional banks to reassess their core competitiveness. Specifically, in areas including customer relationship management and business model innovation, traditional banks that fail to effectively integrate fintech solutions may encounter challenges in adapting to market dynamics and meeting customer demands. Within this context, it is critical to examine how fintech precisely transforms bank competitiveness and to elucidate its underlying mechanisms, which constitute central themes for investigation. Moreover, it is essential to address how emerging financial intermediaries can maintain market stability, how fintech can mitigate barriers within the internet ecosystem, and how the stability of fintech-associated risks can be ensured amid technological advancements. Resolving these issues not only facilitates the mitigation of current challenges faced by traditional banks but also provides vital theoretical foundations and practical guidance for the future development of the banking industry.

1.3. Research Significance

From a theoretical perspective, examining how fintech reshapes the competitiveness of traditional banks holds significant academic value. This paper analyzes the mechanisms by which fintech influences traditional banking competitiveness and explores pathways for banks to enhance their competitive edge in this context. It examines the market dynamics between conventional banks and internet finance companies. Through case studies, it demonstrates that fintech applications present crucial opportunities for traditional banks to strengthen their competitiveness. By leveraging digital transformation and technological empowerment, banks can optimize service processes, innovate financial products, and expand service channels—thereby better adapting to market changes and improving customer loyalty. The study also incorporates fundamental tools and platforms, along with a macro-level analysis of fintech's future trajectory. These findings not only enrich theoretical research but also provide insights for banks' digital transformation efforts and financial regulatory policy formulation. Furthermore, this research is vital for maintaining stable development in the financial sector, enabling regulators to comprehensively assess fintech's impact on banking operations and develop targeted policies to mitigate potential risks.

2. LITERATURE REVIEW

2.1. Theories Related to Fintech

FinTech, as a product of deep integration between finance and technology, represents a new business model that innovates and optimizes financial services through modern information technologies. Its core essence lies in leveraging advanced technologies to transform traditional financial business models, enhance service efficiency, and reduce operational costs. From a technological perspective, FinTech primarily encompasses cutting-edge technologies such as big data, artificial intelligence, blockchain, and cloud computing. Big data technology enables financial institutions to create precise customer profiles and conduct risk assessments by analyzing massive datasets; artificial intelligence utilizes machine learning algorithms for intelligent decision-making, widely applied in areas like smart customer service and fraud prevention; blockchain technology, with its decentralized and immutable characteristics, demonstrates unique advantages in payment settlements and transaction traceability [1]. The convergence of these technologies has not only driven the digital transformation of financial services but also given rise to emerging financial models such as mobile payments and online lending, injecting fresh vitality into the traditional financial system.

2.2. Research on the Competitiveness of Traditional Banks

The competitiveness of traditional commercial banks primarily stems from their core functions as financial intermediaries, encompassing capital allocation capabilities, risk management expertise, and information processing proficiency. Specifically, bank competitiveness can be categorized into three dimensions: services, products, and channels. In terms of services, traditional banks have established standardized service processes and professional teams to deliver efficient and reliable financial services to clients. However, with the advancement of fintech, shortcomings in service convenience and personalization have become significant bottlenecks hindering competitiveness enhancement [2]. Regarding products, while traditional banks offer a diverse range of financial offerings to meet client needs, severe product homogeneity and lagging innovation capabilities make it difficult for them to adapt to rapidly evolving market conditions [3]. For channels, traditional banks have built multi-tiered service networks through extensive physical branches and increasingly sophisticated online platforms. Theoretically, bank competitiveness is rooted in financial intermediation theory and information economics: by accepting deposits and extending loans, banks achieve term conversion and risk diversification, while leveraging long-term customer relationships to accumulate "soft information" that gives them an informational edge in lending decisions. Yet with fintech development, this information monopoly-based advantage is gradually diminishing. Furthermore, transaction cost theory posits that traditional banks exist precisely because they reduce transaction costs and information search costs. However, fintech has significantly reduced financial transaction costs through digital technologies, enabling certain financial activities to bypass the banking system and proceed directly, thereby undermining banks' intermediary role. Meanwhile, The platform economy theory indicates that fintech companies can rapidly attract users and achieve economies of scale by building digital platforms and leveraging network effects, creating competitive pressure on banks. Thus, theoretically, traditional banks' competitiveness is fundamentally based on "information advantage + cost advantage + channel advantage," while the development of fintech is systematically challenging these three foundations and driving a shift in bank competitiveness from being "intermediary-dominated" to being "platform-driven."

2.3. Review of Research on the Impact of Fintech on Bank Competitiveness

The existing literature generally agrees that the development of fintech is profoundly transforming the competitive landscape of the banking industry. On one hand, by leveraging technologies such as big data, artificial intelligence, and cloud computing, fintech has significantly enhanced the efficiency

of financial services while reducing operational costs, thereby optimizing the allocation of financial resources. Zhu Xiaoxia (2021) [2] notes that fintech has improved financial service efficiency by reengineering business processes and the financial product portfolio and has had a profound impact on the operational models and customer service practices of traditional commercial banks.

From the perspective of efficiency and cost, Philippon (2016) [6] argues that fintech reduces financial intermediation costs through technological innovation, thereby enhancing the overall efficiency of the financial system. Furthermore, Song Min and Wang Xun (2021) [5] emphasize that by alleviating information asymmetry, fintech effectively mitigates corporate financing constraints and improves the efficiency of credit resource allocation.

From a competitive structure perspective, fintech has intensified competition within the banking sector. On the one hand, fintech companies leverage their advantages of low cost and high efficiency to replace traditional banks in areas such as payments and lending. Zhu Xiaoxia (2021) [2] noted that fintech poses significant challenges to traditional banks in terms of customer base, operational costs, and convenience, thereby squeezing bank profit margins. On the other hand, the entry of new financial intermediaries and platform enterprises has eliminated banks as the sole providers of financial services, shifting the industry's competitive landscape from "bank-dominated" to one characterized by competition among multiple players.

Meanwhile, some studies argue that fintech will not completely replace banks but rather "restructure" their competitiveness. Boot and Thakor (2000) [7], drawing on relational banking theory, emphasize that banks retain unique advantages in information acquisition and risk management—advantages that are unlikely to be fully replaced in the short term. Thus, fintech primarily involves the segmentation and reorganization of banking operations rather than a complete replacement.

Furthermore, from a broader perspective, fintech enhances economic efficiency through its "information effects" and "innovation effects." Yang Xiaoliang (2026) [4] argues that fintech improves resource allocation efficiency and drives industrial upgrading by reducing information asymmetry and fostering technological innovation. This demonstrates that fintech's impact on bank competitiveness extends beyond the industry itself and generates significant spillover effects.

However, some scholars maintain a cautious stance toward fintech. Stiglitz and Weiss (1981) [8] argue that under conditions of information asymmetry, financial markets may face credit rationing issues; while fintech can mitigate such asymmetry, it may also introduce new risk structures. Meanwhile, regulatory scholars have noted that although fintech enhances efficiency, it could give rise to novel risk profiles, making the balance between fostering innovation and mitigating risks a critical challenge for regulators [12].

For instance, the trend toward disintermediation may undermine banks' buffer role in risk management, while the growth of platform finance could lead to regulatory arbitrage and systemic risks.

2.4. Literature Review and Research Gaps

Although existing literature has examined the impact of fintech on bank competitiveness from multiple perspectives, certain shortcomings remain that warrant further in-depth research.

First, from a research perspective, existing studies predominantly focus on single-dimensional analyses—such as cost efficiency or information asymmetry—while lacking systematic examinations of the overall structure of bank competitiveness. Current research typically defines bank competitiveness across dimensions including services, products, and channels (First Financial Research Institute and Accenture Joint Research Group, 2017) [3], yet pays insufficient attention to the interrelationships between these dimensions. Therefore, it is essential to adopt a comprehensive framework for systematically analyzing how fintech reshapes bank competitiveness.

Secondly, from the perspective of research subjects, existing studies predominantly focus on developed countries or mature financial markets, while research on emerging markets such as China remains relatively insufficient. However, the development of fintech in China is characterized by platform-based and scenario-driven features, which significantly differs from the mechanisms by which it impacts bank competitiveness compared to those in Western countries (Zhu Xiaoxia, 2021) [2]. Therefore, it is necessary to conduct in-depth research within the context of China.

Furthermore, from a mechanistic perspective, while some studies suggest that fintech exerts its effects by mitigating information asymmetry (Song Min and Wang Xun, 2021) [5], there remains a lack of a systematic analytical framework to elucidate how it collectively influences bank competitiveness through multiple mechanisms. For instance, a unified explanation has yet to be developed regarding how fintech simultaneously impacts cost structures, customer relationships, and business boundaries.

Finally, from a policy and regulatory perspective, while existing literature has addressed the risks posed by fintech, research on the "balance mechanism between innovation and regulation" remains insufficient. Although fintech development enhances efficiency, it may also give rise to new risk structures (Stiglitz and Weiss, 1981) [8]; however, how to foster innovation while maintaining financial stability remains a critical issue in both theory and practice.

In conclusion, building upon existing research and from a fintech perspective, this paper establishes a systematic analytical framework to examine the mechanisms by which fintech influences traditional banks' competitiveness and further analyzes the transformation pathways banks may adopt under fintech disruption, thereby addressing gaps in current scholarship.

3. CURRENT STATE OF FINANCIAL TECHNOLOGY DEVELOPMENT

3.1. Current State of Global Fintech Development

In the era of globalized digital transformation, fintech has experienced exponential growth, profoundly impacting daily life. Services such as mobile banking and internet finance have transformed various aspects of life. Fintech has disrupted traditional paradigms and ushered in a new era. Its rise serves as compelling evidence of innovation, continuously breaking down barriers, enhancing financial inclusion, promoting service accessibility, and demonstrating how solutions like digital banking, lending platforms, and blockchain offer diverse alternatives and efficient options to traditional banks—with increasingly profound indirect impacts on businesses, consumers, and the global economy.

Technology is driving the digital transformation of financial services, leveraging big data, artificial intelligence, and blockchain to advance financial automation and intelligence, thereby addressing efficiency challenges in traditional banking. Banks are shifting toward intelligent services and online models to enhance automated decision-making and achieve digitally-driven operations. A growing number of financial service platforms have emerged, encompassing lending solutions, third-party services, and SME financial management platforms, which improve service transparency, management efficiency, and peer-to-peer communication, lower financing barriers, and optimize asset allocation. Financial inclusion remains a critical sector, with fintech accelerating its development, fostering corporate innovation and internationalization. Digital platforms enable SMEs and individual entrepreneurs to access financial resources more conveniently, reduce cross-border transaction costs, and support global development. Global fintech development exhibits distinct regional disparities and industry clustering patterns, with advanced markets maintaining leadership in technological innovation and regulatory frameworks [10].

3.2. Current State of Fintech Development in the United States

The United States is one of the earliest pioneers and largest markets in fintech development, holding a global leadership position in the sector. It boasts high adoption rates in areas such as digital payments, P2P lending, crowdfunding, and online banking, and hosts one of the world's largest financial markets. American fintech has entered a stage of mature development, focusing on reducing transaction costs, enhancing innovation capabilities, and fostering the growth of tech companies.

The primary drivers of innovation are startups and unicorn companies, with innovation being characterized by decentralization driven by these enterprises. Leveraging advanced technologies, unique business models, or venture capital incubation, startups have become the core force behind fintech development.

Fintech in traditional banking is primarily applied to personal consumption and startup financing, bridging financial service needs from individuals to businesses. It has matured in the consumer finance sector, demonstrating a market-oriented approach.

At both the technological and regulatory levels, the United States leads in fields such as artificial intelligence and blockchain. Its regulatory framework has shifted from lenient to institutionalized approaches, with the introduction of fintech licenses to enhance risk management and compliance.

The development trajectory of U.S. fintech is primarily characterized by the penetration and integration of emerging technologies into the financial sector, with its core driving force stemming from technological innovation rather than expanding market demand [9].

3.3. Characteristics of China's Fintech Development

The development of China's fintech sector is primarily driven by internet companies and digital platforms. Cutting-edge technologies such as cloud computing, artificial intelligence, and blockchain are accelerating its transformation toward intelligence, significantly enhancing the efficiency and security of the financial system. Large enterprises like Alibaba and Tencent have leveraged their technological advantages to build an internet finance ecosystem encompassing services such as payments and lending, thereby establishing strong market dominance. The strengths of China's fintech lie in the widespread adoption and high convenience of application scenarios like payments and social networking. Online financing, robo-advisory, and blockchain technology have further expanded the scope of financial services and provided robust support for innovation. Inclusive finance policies have lowered service barriers through digital platforms, thereby broadening the reach of financial services. Although there remains a gap compared to developed countries at the technical level, the massive market size and sustained user growth have endowed China's fintech with significant development potential. Fintech's role in driving innovation among small and medium-sized enterprises (SMEs) has become increasingly prominent, with digital financial services emerging as a crucial channel for SMEs to overcome financing constraints [11].

3.4. The Competitiveness Challenges Faced by Traditional Banks Amid the Impact of Fintech

Global fintech is transforming traditional banking, with disintermediation being the most fundamental aspect. Third-party payment services and P2P lending bypass the banking system, creating intense competition that undermines banks' intermediary role. Fintech reduces transaction costs and enhances efficiency, challenging banks' profit models; meanwhile, growing user bases and price wars adversely affect banks. Tech companies lower financial barriers, exacerbating industry saturation and competitive pressure. At the micro level, credit services have become more flexible and replaceable, with fintech products substituting traditional lending practices. Data and technology enhance risk management capabilities—such as through real-time data and artificial intelligence while

undermining traditional banks' experience-based risk control frameworks. Technological advancements drive automation in offline retail and reduce operational costs through digitalization, yet increase unemployment among low-skilled bank employees.

3.4.1. Service Aspects

Fintech leverages big data and artificial intelligence to deliver intelligent services, enhance efficiency, reduce costs, and provide round-the-clock responsiveness. Traditional banking relies on manual operations, resulting in slow service speeds, complex processes, and subpar customer experiences. Fintech also improves convenience and personalization through mobile payments and online lending.

3.4.2. Product Aspects

Fintech has revolutionized the fields of credit and wealth management. In credit, it delivers efficient, low-barrier financing through algorithms and online platforms, replacing traditional models reliant on physical collateral. For risk control, big data is leveraged to build risk assessment models, enhancing decision-making efficiency. In wealth management, tools such as robo-advisors lower investment barriers, challenge conventional wealth management approaches, and drive financial services toward standardization, personalization, and intelligence.

3.4.3. Channel aspects

Fintech integrates internet platforms and scenario-based finance into e-commerce, social media, and other contexts, attracting customers to shift their transactions online and undermining the traffic advantages of physical bank branches. Traditional banking channels are limited in variety, lag behind in transformation, and struggle to adapt to evolving customer behaviors; thus, innovation is essential to enhance competitiveness.

In summary, fintech has exerted a comprehensive impact on traditional banks by enhancing service efficiency, restructuring product systems, and reshaping channel frameworks, with its influence particularly pronounced in the China market, compelling banks to accelerate their digital transformation.

4. THE PATH FOR FINTECH TO RECONFIGURE TRADITIONAL PAYMENT SYSTEMS AND ENHANCE BANK COMPETITIVENESS

Amid the impact of fintech, traditional banks should prioritize digital transformation as their core focus, systematically redefining their competitiveness across three dimensions of services, products, and channels to shift from a branch-driven model to one driven by data and platforms.

4.1. Digital Transformation Enhances Service Competitiveness

In the new era, the collapse of the old order is gradually unfolding within the financial sector. Under the impact of fintech, traditional banks must enhance their comprehensive competitiveness through digital transformation capabilities. Leveraging technologies such as artificial intelligence, big data, and digital platforms, fintech enables financial services to become faster, safer, more convenient, efficient, intelligent, sustainable, and better developed—significantly improving service efficiency and customer experience across both online and offline channels. Empirical evidence further supports the efficiency gains brought by digital platforms: studies show that approximately 75% of users feel more comfortable participating in online environments, while personalized systems increase engagement rates to nearly 80%. Additionally, gamification can boost engagement by up to 40%, and flexible access improves retention for around 70% of users. These findings highlight how digital technologies significantly enhance the user experience and service efficiency, which is directly applicable to banking service transformation.

As research indicates: "Fintech aims to provide automated and enhanced financial services by leveraging innovative, efficient information technologies" (Yadav) [14], demonstrating how fintech rapidly utilizes technological means to optimize and transform traditional banking frameworks. Overall, banks can achieve business automation and intelligence by developing and refining online service platforms and smart systems, enabling integrated, fast, and user-friendly processes that reduce labor costs while delivering more convenient and personalized services—such as 24/7 AI customer support, advanced financial management platforms, automated corporate risk assessments, and intelligent credit evaluations. Furthermore, fintech can "simplify information flow, improve processing efficiency, and lower costs" (Yadav) [14], allowing banks to enhance service quality while reducing operational expenses.

Simultaneously, whether in the East Asian market or the broader Asian market landscape, fintech still faces core challenges such as high investment costs that squeeze traditional businesses and intensify competition. In regions with advanced technology and well-developed infrastructure, the positive impact of fintech-driven digital transformation is more pronounced. However, in leading economies and relatively underdeveloped developing countries like Indonesia, the negative impacts are significant, necessitating gradual improvements in infrastructure to facilitate a step-by-step transition. In China, the primary negative effects stem from technologies such as AI and big data, while traditional digital transformation efforts remain relatively robust. Nevertheless, competition with conventional banking remains intense: "Fintech can crowd out the traditional business of commercial banks." (Li, Zhu, & Qin) [13]

Furthermore, digital transformation is also reflected in the enhancement of customer experience. Through mobile banking, online payments, and intelligent customer service systems, banks can provide customers with more convenient and personalized services. Relevant research also indicates that fintech offers customers "better alternatives to banks from the comfort of their own homes" (Alwi et al. [15]), demonstrating a shift in service delivery from traditional branches to digital platforms.

In particular, the role of fintech in both private and public Indian banks has enhanced information processing efficiency and significantly improved various financial sectors. Regarding private banks' progress toward digital transformation, Yadav [14] notes: "There is a positive and significant relationship between digitalization and ROA." Search banks place greater emphasis on customer experience and demonstrate stronger technological adaptability compared to state-owned banks; conversely, state-owned banks exhibit lower decision-making efficiency but have a stronger policy influence. Technologically, their systems are often outdated, and their non-profit objectives are more pronounced. Although these two bank types differ slightly, they share the common goal of advancing digital transformation.

Therefore, traditional banks should comprehensively transform their service systems through digital technologies, shifting from an "offline-driven" approach to a "data-driven" one, to enhance service efficiency and customer loyalty, thereby strengthening their service competitiveness.

4.2. Innovating Financial Products to Enhance Product Competitiveness

Regarding innovative product offerings, financial technology drives the restructuring of financial product portfolios through technological innovation, posing risks and challenges to traditional banks' lending and wealth management businesses due to evolving customer environments.

The rapid adoption of fintech has significantly reshaped customer behavior and financial channels. For instance, cash transactions in the UK declined from 40% to a projected 16%, reflecting the shift toward digital payment systems. This transition demonstrates that fintech platforms increasingly serve as substitutes for traditional banking channels, forcing banks to restructure their service delivery systems. (World Bank) [16]

Banks need to leverage technologies such as big data and blockchain to enhance their product innovation capabilities. Only in this way can they mitigate the impact on traditional banking. Empirical findings indicate that fintech has a dual effect on bank performance: on the one hand, it improves efficiency and reduces transaction costs; on the other hand, it exerts a crowding-out effect on traditional banking operations, intensifying competition and eroding profit margins (Li, Zhu, & Qin). This demonstrates that product innovation is not only essential but also critical for banks to maintain competitiveness (Li, Zhu, & Qin) [13].

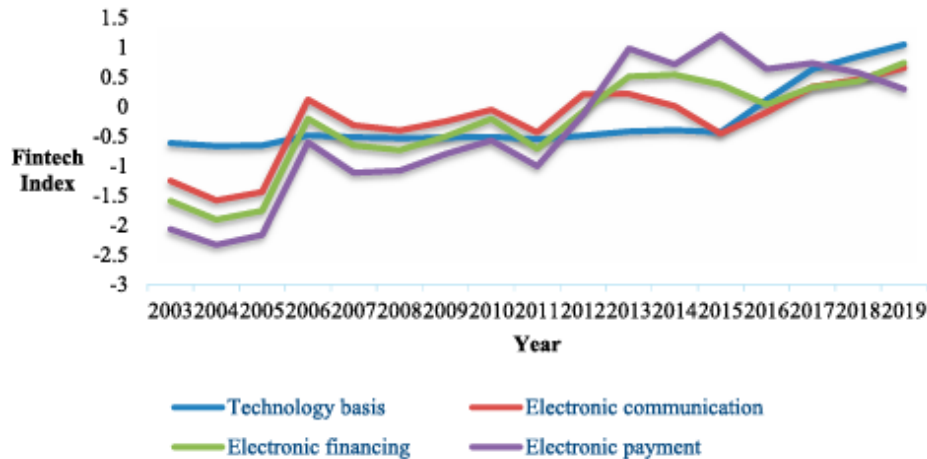


Figure 1. Fintech index

In the field of credit products, fintech employs data analysis and quantitative models to conduct risk assessments, reduce operational costs, enhance collaboration efficiency, and streamline processes. Research demonstrates that it significantly lowers transaction costs and improves overall efficiency. Traditional banks rely heavily on collateral guarantees, resulting in slow approval times; in contrast, innovative financial products expand service coverage and accelerate processing speeds.

In terms of product architecture, fintech leverages technologies such as blockchain to enhance transparency and security—e.g., reducing information asymmetry in supply chain finance and cross-border payments while optimizing product design. Innovative products offer broader payment options through platform integration and QR code payments, boosting cross-border transaction efficiency.

Furthermore, fintech is driving the intelligent transformation of wealth management. For instance, robo-advisors use algorithms to provide asset allocation recommendations, lower investment barriers, and enhance service accessibility. Additionally, it enables the assessment of clients' creditworthiness and risk resilience, facilitates precise pricing, strengthens risk management, and reduces costs and risks. Research also indicates that fintech "can crowd out the traditional business of commercial banks" (Li, Zhu, and Qin) [13], implying that banks must accelerate product innovation to compete effectively.

Traditional banks have driven innovation in various fintech products by leveraging big data, blockchain technology, and AR algorithm models, transforming standardized offerings into personalized, intelligent, and automated solutions that enhance product competitiveness.

4.3. Optimize the Channel Layout to Enhance Channel Competitiveness

Fintech companies are leveraging digital platforms to challenge traditional bank branches, compelling conventional banks to accelerate technological transformation and establish digital channels to enhance competitiveness.

Banks should strengthen online channels as their primary service gateway, optimize digital experiences and operational efficiency, promote the integration of online and offline services, reduce the functions of physical branches, and enhance intelligent services. Physical branches can be

transformed into service centers, while online platforms handle high-frequency transactions. Fintech drives scenario-based finance by integrating services into social interactions, mobility, e-commerce, and other contexts to boost customer engagement. Meanwhile, fintech leverages big data for targeted marketing to enhance customer loyalty. Private banks have progressed more rapidly in digital transformation, whereas state-owned banks have lagged behind. Channel optimization requires synergy among technological, organizational, and strategic efforts. Traditional banks should establish an ecosystem comprising "digital platforms + scenario-based finance + channel synergy" to enhance channel competitiveness.

5. CASE ANALYSIS

5.1. Case Study of China Merchants Bank's "AI First" Strategy

As a representative institution of China's retail banking digital transformation, China Merchants Bank officially proposed the "AI First" strategy in 2025, emphasizing the expansion of artificial intelligence from a standalone tool application to the entire bank's operational system, thereby driving the transition from digitalization to intelligentization. This strategy not only reflects the deep integration of fintech into traditional banking but also aligns closely with the "reconstruction of service competitiveness, product competitiveness, and channel competitiveness" outlined in Chapter 4 of this paper.

5.1.1. Digital Service Transformation: From Manual Services to an Intelligent Service System

In the traditional banking system, customer service has long relied on physical branches and manual processes, leading to issues such as low efficiency, high operational costs, and inconsistent customer experiences. A key pillar of China Merchants Bank's "AI First" strategy is leveraging artificial intelligence to comprehensively optimize its service offerings.

According to China Merchants Bank's 2025 annual report, the bank has committed to "upholding the 'AI First' philosophy and accelerating the development of a smart bank," expanding AI applications across multiple areas, including retail finance, risk control, operations, and office processes. In 2025, China Merchants Bank invested over RMB 12.9 billion in information technology, accounting for 4.31% of its operating revenue, and implemented 856 AI application scenarios (China Merchants Bank 2025 Annual Report) [19, 20].

This strategy aligns closely with the concept of "enhancing service competitiveness through digital transformation" outlined in Section 4.1. China Merchants Bank has achieved automation and intelligence in its customer service processes through AI-powered customer service systems, intelligent operations, and large-scale model-assisted solutions. For instance, its internal AI assistants are widely deployed in customer engagement, business analysis, and wealth management scenarios, significantly improving service efficiency and response speeds. Additionally, the bank leverages the large-model-assisted programming system "DevAgent" to boost internal R&D productivity, achieving coverage rates exceeding 97% among developers. This demonstrates that digital transformation extends beyond customer service to permeate the entire banking operational framework. As Yadav notes: "Fintech aims to deliver automated and enhanced financial services by leveraging innovative, efficient information technologies" [14]. China Merchants Bank's AI strategy exemplifies this approach—redefining traditional service models through AI and data technologies. Furthermore, the combined monthly active users (MAU) of the China Merchants Bank App and the Zhangshang Life App reach 129 million, highlighting how digital platforms have become a key gateway for customers to access financial services. This also validates the argument put forward by Alwi et al., that fintech can provide users with "better alternatives to banks from the comfort of their own homes" (Alwi et al. [15]).

5.1.2. Financial Product Innovation: AI-Driven Intelligent Risk Control and Wealth Management

In addition to the transformation of its service system, China Merchants Bank's "AI First" strategy has also driven the restructuring of its financial product portfolio, particularly in intelligent risk control, digital lending, and wealth management. Traditional bank lending operations have long relied on collateral, manual approval processes, and static risk assessment methods; in contrast, China Merchants Bank utilizes AI models and big data analytics to achieve dynamic risk identification and precise pricing. The bank's annual report indicates that its AI systems are widely deployed in risk control and customer management areas. By analyzing behavioral data, transaction records, and customer profiles, the bank enables more efficient risk evaluation and credit approval processes—an approach that aligns closely with the concept of "big data-driven product innovation" discussed in Section 4.2. Li, Zhu, and Qin noted in their study of China's commercial banks: "Fintech reduces transaction costs and enhances efficiency" (Li, Zhu, & Qin) [13]. China Merchants Bank has effectively leveraged AI and data analytics to lower transaction costs and optimize product workflows. Furthermore, the bank has applied AI technologies to wealth management and asset allocation. As a leading institution in China's retail finance and wealth management sectors, China Merchants Bank continues to strengthen its intelligent investment advisory and digital wealth management systems, facilitating the transition from "human experience-driven" to "algorithm-driven" wealth management practices. Additionally, through the development of AI infrastructure, the bank has established specialized models across 183 domains, forming a comprehensive intelligent banking ecosystem. This indicates that fintech has evolved beyond being a mere tool to become deeply integrated into banks' product portfolios and decision-making processes. However, its advancement has also introduced competitive pressures. Li, Zhu, and Qin note: "Fintech can displace the traditional business models of commercial banks" [13]. Consequently, China Merchants Bank has enhanced its market competitiveness by proactively advancing its AI strategy, transitioning from traditional financial products to an intelligent, personalized product ecosystem.

5.1.3. Channel Layout Optimization: From Traditional Outlets to a Smart Ecosystem Platform

China Merchants Bank's "AI First" strategy has restructured its channel system, shifting from reliance on physical branches to online platforms. By leveraging an app ecosystem, digital financial platforms, and AI-driven collaboration, the bank has established platform-based, scenario-oriented channels, achieving 2.2085 million monthly active users online—solidifying these channels as core assets that align with the goal of "optimizing channel layout to enhance competitiveness." Concurrently, the bank has built an "AI-powered organization," enhancing channel synergy through data governance to transform channels into integrated platforms for customer relationship management and ecosystem collaboration. Furthermore, by embedding scenario-based financial services across multiple contexts, the bank has created a comprehensive financial ecosystem that boosts customer loyalty and competitive advantage. Yadav's research notes: "Private sector banks are more agile in adopting new technologies and integrating fintech solutions" [14]. As a highly market-oriented joint-stock commercial bank, China Merchants Bank's rapid advancement in AI and digital channel transformation exemplifies the flexibility inherent in private-sector banks during their fintech transition.

5.1.4. Case Summary and Implications

Overall, China Merchants Bank's "AI First" strategy goes beyond mere technological application; it represents a systematic overhaul of traditional banking competition logic. At its core, it leverages artificial intelligence, big data, and digital platforms to comprehensively upgrade service systems, product portfolios, and channel ecosystems.

This case fully demonstrates the three approaches proposed in Chapter 4 of this paper:

- ① Digital transformation enhances service competitiveness;
- ② Innovate financial products to enhance their competitiveness;
- ③ Optimize channel distribution to enhance competitiveness

Meanwhile, this case demonstrates that future competition in the banking sector will no longer focus solely on traditional branch scale and capital strength, but will increasingly emphasize data capabilities, AI application proficiency, and ecosystem development capabilities.

5.2. Case Analysis of China CITIC Bank's "Xiaotianyuan" Enterprise Ecosystem Service Platform

CITIC Bank's "Xiaotianyuan" Enterprise Ecosystem Service Platform has undergone a systematic overhaul in its services, products, and distribution channels. As a prime example of fintech transformation, it represents not merely a traditional financial tool but an exploration into reshaping corporate service frameworks and building digital ecosystems. Its core innovation lies in the bank's evolution from a single financial product provider to a comprehensive digital service platform that serves as the infrastructure for enterprise digital ecosystems. In terms of service delivery, Xiaotianyuan adopts a "free standard edition + ecosystem integration" model, embedding banking services throughout enterprises' entire processes—including operations, finance, capital management, and taxation [17]. This shift enables the transition from low-frequency financial services to high-frequency digital solutions, redefining bank-client relationships and transforming banks into collaborative digital platforms. Features such as intelligent accounting systems and automated HR management significantly enhance operational efficiency by reducing transaction processing times and improving workforce management effectiveness. These developments demonstrate that Xiaotianyuan has transcended traditional financial services to become the foundational infrastructure for enterprise digital operations, reflecting a profound evolution in fintech from tool-based empowerment to system-wide empowerment. This aligns closely with Yadav's perspective that "Fintech aims to provide automated and enhanced financial services by leveraging innovative, efficient information technologies" [14], emphasizing that the core of fintech lies not merely in technological application but in redefining the efficiency and user experience of traditional financial services through technology.

Fintech is driving the transformation of banking product systems toward scenario-based, ecosystem-oriented, and intelligent approaches. Taking the "Xiaotianyuan" platform as an example, it integrates big data with ecosystem components to address multiple scenarios such as supply chain management and cost control. For instance, a law firm utilized its cost-control module to reduce travel expenses by 20% while lowering compliance risks. This demonstrates the integration of financial and non-financial services along with business-finance synergy, embedding financial products into daily corporate operations to enhance usage frequency and customer reliance. Additionally, Xiaotianyuan underscores the importance of data assets by consolidating financial, tax, and transaction data to establish dynamic customer profiles and risk identification systems, enabling precise product matching and risk management. This model aligns with Li, Zhu, and Qin's proposition that "Fintech reduces transaction costs and improves efficiency" [13], highlighting how fintech enhances the efficiency of financial resource allocation through data-driven solutions.

More importantly, this platform effectively mitigates the "crowding-out effect" of fintech on traditional banking operations. Li, Zhu, and Qin noted: "Fintech can crowd out the traditional business of commercial banks" [13]. By leveraging an ecosystem-based product portfolio, Xiaotianyuan shifts the competitive focus from mere price competition to competition based on corporate operational efficiency and value creation, thereby enhancing traditional banks' product competitiveness in the era of fintech.

In terms of channel dimensions, the "Xiaotianyuan" platform drives the transformation of traditional banking channels from "physical branch centers" to "platform ecosystem hubs." While conventional channels focus on transaction processing, fintech transforms them into platforms for data connectivity and ecosystem collaboration. As a digital gateway for enterprise services, Xiaotianyuan integrates with corporate systems via API interfaces, shifting banking services from being customer-driven to bank-driven, thereby making financial services seamless. By consolidating data, the platform establishes a risk control system, equips channels with risk identification and customer engagement capabilities, and progressively evolves its functions toward customer relationship management and value creation.

As of September 2025, "Xiao Tianyuan" has connected over 100,000 small and medium-sized enterprises [17, 18], demonstrating the significant advantages of digital channels in serving long-tail customers, enhancing customer loyalty, and expanding market coverage. This initiative validates the development approach of "online platform + scenario ecosystem" and indicates that the core of future bank competition lies in ecosystem integration and data connectivity capabilities.

In conclusion, the "Xiaotianyuan" case of China CITIC Bank demonstrates that the key pathways for fintech to reshape bank competitiveness lie in: digital transformation reshaping service processes, data and ecosystems driving innovation, and platform-based channels enabling connectivity and value creation—these three elements synergistically form an ecological closed loop. "Xiaotianyuan" not only represents a significant practice of China CITIC Bank's fintech transformation but also embodies the direction of joint-stock banks evolving into "digital ecosystem-oriented banks," providing a valuable "China model" for traditional banks to address the impact of fintech.

6. CONCLUSION

This paper mainly demonstrates how fintech can reconstruct the competitiveness of finance and traditional banks, how to change and reshape the pattern of financial and banking industry, and realize reform and innovation based on their own views and experiences. This paper compares the impact mechanism of today's cutting-edge fintech and technical means and mechanisms on the three dimensions of banking services, products and channels, and on this basis, puts forward the realization path of digital transformation driving competitiveness improvement. In the current situation of financial development, I combine the micro and macro perspectives, especially the characteristics of fintech development between China and the United States. The United States is closer to the core internal technological innovation, while China is a fintech system that innovates by relying on a huge customer group and an experimental multi-factor demand system. In today's environment, financial offline retail and services have changed from artificial to intelligent, reducing the time and labor costs of offline outlets. In terms of credit, customers can be in place in one step through online review and operation, and risk control can be automated through big data screening and quantitative modeling, intelligent investment to achieve algorithmic asset allocation. These products are more convenient for small and medium-sized enterprises and individual customers and form a substitution effect for the traditional banking industry.

Based on the case analysis of China Merchants Bank's AI First strategy and China Citic Bank's "Xiaotianyuan" enterprise ecological service platform, this paper verifies the importance of digital transformation services, intelligent products and ecological channels. This transformation triangle framework is the core competitiveness and effectiveness of today's Chinese fintech products. The research shows that fintech is only the catalyst in the key process of traditional banks. The framework of the financial industry has been fixed for a long time. In today's environment of continuous technology iteration, what we can do is to reshape the market pattern through continuous innovation rather than overturn the traditional banking industry. In the era of scientific and technological development, combined with the superior AI data model, it is the key to serve the global financial market, whether it is the front desk screening factor or the middle platform accelerating audit, the

construction of the background enterprise management and financial platform, comprehensive promotion and experiment, and continuous iteration of technology and innovation. In the face of technological change and the reshaping of market pattern, only by transforming AI data ecology into core competitiveness can traditional banks realize the strategic transformation from "passive response" to "active leading" in the era of digital finance.

Even though the research of this paper is relatively sufficient in today's environment, it still has some limitations. In the implicit structure of some enterprises and the uncertain factors of the market, the evolution progress of agents, the enterprise structure and other objective factors are not enough to support. For long-term tracking, case analysis can provide a more comprehensive analysis of the global market and a variety of banks, not necessarily limited to joint-stock banks. The above aspects need further investigation.

In the future, we can continue to integrate and study core issues from different aspects, including cross-bank type evaluation, cutting-edge technology application, global market values and global vision, comprehensive and effective financial evaluation standards, advanced regulatory system, etc.

Through the continuous exploration of the above directions, it is expected to further improve the theory of bank competitiveness in the fintech era, and provide more solid academic support for the digital transformation of the banking industry and the optimization of financial regulatory policies.

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