Competition and Cooperation between Internet Finance and Traditional Banking: A Comparative Study Based on the Chinese Market

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Abstract. The rapid development of Internet finance (ITFIN) in China has transformed the financial landscape, with Alipay and WeChat Pay dominating the third-party payment market while traditional banks are facing challenges of reforming. Studying the coopetition between the two is of great significance for optimizing the allocation of financial resources. The main focuses are: the competitive differences in core financial fields, whether technology integration can achieve complementary advantages, and the impact of the current environment, especially the regulatory framework, on the coopetition relationship through comparing the characteristics of ITFIN and traditional banks to study their competitive landscape; analysing cooperation cases in China and abroad to summarize various cooperation fields and conducting feasibility analysis on the possibility of continuous cooperation in the future. Ultimately, the competition between ITFIN and traditional banks reflects the trade-off between technological efficiency and financial stability as well as having their own advantages in payment, lending, and wealth management, achieving mutual development. Our study proposes some suggestions: for policy, use blockchain technology to balance liquidity; for enterprise, drive intelligent transformation through scenarios and upgrade compliance and risk management; for technology, promote the standardization and commercialization of open bank APIs.

1 Introduction

1.1 Research background

The meteoric rise of internet finance in China has fundamentally transformed traditional financial ecosystems. Innovations including mobile payments, online credit services, and digital wealth management have surged, driven by technological advancements and consumer-centric solutions. Alipay and WeChat Pay collectively dominate over 90% of

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China's third-party payment market, processing 350 trillion yuan in transactions in 2022, underscoring robust demand for frictionless financial services. While traditional banks retain strengths in brand trust, risk control frameworks, and physical branch networks, they struggle with customer retention, technological obsolescence, and operational inefficiencies, lagging in digital transformation. Investigating the competitive-cooperative dynamics between these sectors in payments, lending, and wealth management holds critical significance for optimizing financial resource allocation and advancing sustainable industry development.

1.2 Research Objectives and Questions

This study explores synergistic mechanisms through their interplay:

What are the competitive disparities between the two sectors in core financial domains ?

How can technological integration facilitate complementary advantages?

How does the regulatory environment shape competitive-cooperative dynamics?

2 Analysis of Competitive Landscape Between Internet Finance and Traditional Banking

2.1 Definition and development of Internet Finance

Internet Finance (ITFIN) refers to a new financial business model where traditional financial institutions and internet enterprises utilize internet and information communication technologies to achieve fund financing, payment, investment, and information intermediary services. It is not a simple combination of the internet and the financial industry, but a new model that emerged as network technologies—such as security and mobile applications—reached a certain maturity and gained user acceptance, particularly driven by the popularity of e-commerce. As an emerging field integrating traditional finance with internet technology, ITFIN relies on big data and cloud computing to form functional financial formats and service systems on open internet platforms. These include financial market systems, financial service systems, financial organizational structures, financial product systems, and internet financial regulatory systems [1].

The development of ITFIN in China has gone through several key stages. The initial phase from the 1990s to around 2005 marked the internalization of traditional financial services. This was followed by the rapid growth of third-party payments from 2005 to 2012. Since 2012, substantive internet-based financial services have flourished. During this process, China's ITFIN has diversified its business models and operational mechanisms, encompassing network-based financial markets, services, organizational structures, and product systems, alongside corresponding regulatory frameworks [2].

Driven by technology, ITFIN has achieved innovation in areas such as big data, blockchain, and artificial intelligence (AI). The application of big data enables comprehensive mining and analysis of personal and credit information, reducing information asymmetry and improving the accuracy of credit assessments. Blockchain technology enhances efficiency and security in cross-border payments and supply chain finance through its decentralized distributed ledger features. AI optimizes the intelligence of financial services via machine learning and data analysis [3].

In the Chinese market, Alipay and WeChat Pay are iconic examples of ITFIN. Founded by Alibaba Group, Alipay is China's largest third-party payment platform, offering mobile payments, transfers, utility bill payments, and other financial services. Its success lies in its convenient payment methods and secure transaction environment, which deliver efficient and user-friendly experiences. WeChat Pay, under Tencent, rapidly expanded its market share by leveraging its social platform's user base. Ant Group, originating from Alipay, has evolved into a comprehensive financial services provider, offering diversified services such as wealth management, insurance, and microloans [4].

2.2 Advantages and disadvantages of traditional banking

Despite the rapid rise of ITFIN through technological innovation, traditional banking maintains its market position due to inherent strengths. However, differences in business models, technological applications, and service efficiency between the two sectors have become increasingly pronounced.

Traditional banking retains significant advantages in the financial sector, despite the rise of internet finance. First, state-owned banks such as the Industrial and Commercial Bank of China (ICBC) and China Construction Bank (CCB) have built up decades of credibility, making them the preferred choice for high-net-worth clients. Their brand trust and regulatory compliance provide a sense of security that is hard to match. Second, these banks offer comprehensive service capabilities, covering a full range of financial services including deposits, loans, cross-border finance, and asset management. For example, China Merchants Bank's integrated "wealth management + private banking" system exemplifies this strength by providing tailored solutions for affluent clients. Third, traditional banks have an extensive offline network, with over 200,000 branches nationwide. This enables them to provide face-to-face services and maintain strict risk control processes. As a result, their non-performing loan ratios are consistently lower than those of internet finance platforms, ensuring greater financial stability [5].

However, traditional banking also faces several challenges in the digital age. First, their core systems are often outdated, struggling to match the agile development capabilities of internet companies. This technological lag limits their ability to innovate quickly and respond to market changes. Second, traditional banks face high operational costs, with over 60% of expenses attributed to branch rentals and labor. This burden makes it difficult to compete with the leaner, more efficient models of internet finance. Third, innovation in traditional banking is constrained by regulations and rigid organizational structures. As a result, their product iteration speeds are slower compared to tech-savvy firms like Ant Group, making it harder to keep pace with evolving consumer demands [6].

Table 1. Competitive Dimensions and Comparisons

Competitive Dimension	Traditional Banking	Internet Finance
Business Model	Focus on deposits, loans, large-scale wealth management	Focus on payments, small loans, pocket money management
Technology & Operations	Relies on legacy IT systems, low digital investment	Utilizes big data risk control, AI customer service, blockchain cross-border payments
Brand & Service	High trust but rigid user experience	High user engagement, ecosystem integration

In the financial sector, traditional banks and internet finance (ITFIN) compete across various domains, each leveraging distinct strengths. See table 1, in wealth management, traditional banks provide a wide array of products with higher entry thresholds, targeting clients who possess substantial capital. Conversely, ITFIN platforms such as Yu'e Bao by

Ant Group offer low-threshold, flexible products tailored to younger and small-scale investors. Yu'e Bao has attracted a vast user base with its minimum investment requirement of just 1 RMB, accumulating 1.2 trillion RMB in assets, which significantly surpasses the typical 50,000 RMB threshold of traditional banks [5]. In the realm of payments, Alipay processes over 10 billion daily transactions through its scan-to-pay feature, overshadowing UnionPay's QuickPass, which holds only 8% of the market share . Regarding lending, WeBank's Weilidai leverages Tencent's social data to approve loans within 3 minutes, while traditional banks typically require 3 to 7 days for credit card approvals. These examples illustrate how ITFIN's innovative and accessible services challenge traditional banking models, offering greater convenience and lower barriers to entry for a broader range of consumers.

2.3 Core business competition analysis

2.3.1 Payments: security vs. convenience

ITFIN dominates mobile payments with user-friendly interfaces and efficient processes. However, this convenience often compromises security. Traditional banks, on the other hand, prioritize security through multi-factor authentication methods, such as ICBC's U dun + SMS verification, achieving a payment security incident rate of only 0.001% in 2022 [7]. Yet, their reliance on physical devices complicates mobile transactions. Meanwhile, WeChat Pay's mini-program + social sharing model excels in high-frequency scenarios like dining and transportation, processing 1.2 billion daily transactions in Q1 2023. However, vulnerabilities in QR codes led to user fund losses in 2022, with phishing attacks affecting 5% of users [8].

2.3.2 Lending: risk control vs. inclusivity

Internet Finance (ITFIN) serves underserved SMEs and individuals through big data-driven rapid approvals, but this approach faces higher default risks. For instance, JD Finance's Baitiao serves 240 million unbanked users but has a bad debt rate of 3.2%, which is 1.5% higher than that of traditional banks. In contrast, China Merchants Bank maintains a credit card delinquency rate of 1.6% through rigorous risk models but only covers 35% of adults via the central bank's credit system [9].

2.3.3 Wealth management: thresholds vs. flexibility

Traditional banks target high-net-worth clients with stable-yield products, such as Bank of China's offerings that feature 5% annualized returns and a minimum investment of 50,000 RMB. In contrast, ITFIN platforms attract mass markets with highly liquid products. For example, Yu'e Bao requires only a 1 RMB minimum investment and offers T+0 redemptions. However, due to market volatility, Yu'e Bao's returns dropped below 2% in 2022 [4].

The competition between ITFIN and traditional banking centers on efficiency versus trust. The former lowers service barriers through technology, while the latter ensures stability through compliance. Future collaboration may emerge through open banking models, such as SPD Bank's blockchain supply chain finance partnership with AntChain [5].

3 Exploration of cooperation opportunities in the competition

At present, the main ITFIN services in China include payment, credit financing, and channel business, among others. Payment refers to the service of initiating payment instructions through computers, mobile phones, and other devices. Credit financing involves the direct matching of fund supply and demand via the internet to complete the financing process.

3.1 Synergistic development in the payment

System Integration between Banks and Third-Party Payments:

Alipay has become the largest third-party payment platform in China, with a vast number of users relying on it for daily consumption. Supported by a growing network of merchants, Alipay's convenience has made it a mainstream payment solution in the Chinese market. On one hand, Alipay's use of virtual currency for transactions challenges traditional banking's cash-based systems, prompting banks to accelerate the development of online banking services and creating a competitive dynamic. On the other hand, creating an Alipay account requires binding a bank card, highlighting its role as a consumption platform rather than a standalone financial institution. The final payment processing still relies on banks, and the significant customer base brought by Alipay generates additional profits for banks, fostering a complementary and cooperative relationship.

Clearly, cooperation between banks and third-party platforms like Alipay can create greater benefits. The success of Alipay demonstrates that consumers increasingly prefer more convenient payment methods, a trend that will continue to drive the evolution of the financial sector.

3.2 Complementary model of lending business

Given the open, equal, and shared nature of the Internet, ITFIN primarily serves small companies at the lower end of the lending market. Meanwhile, banks are often perceived as high-end providers. The two sectors target different customer segments and service areas. Cooperation between them can help both reach new customers and expand their business.

Partnership lending

There are two main forms of cooperation between ITFIN and banks: partnership lending and co-financing. The partnership lending process is illustrated in Fig. 1. Borrowers apply through loan facilitators, who then recommend them to banks and collect commissions. Throughout this process, borrowers ultimately obtain and repay the loans through the banks. Loan facilitators act as intermediaries. For small banks lacking risk control capabilities, loan facilitators conduct an initial screening to assist with preliminary risk assessment.

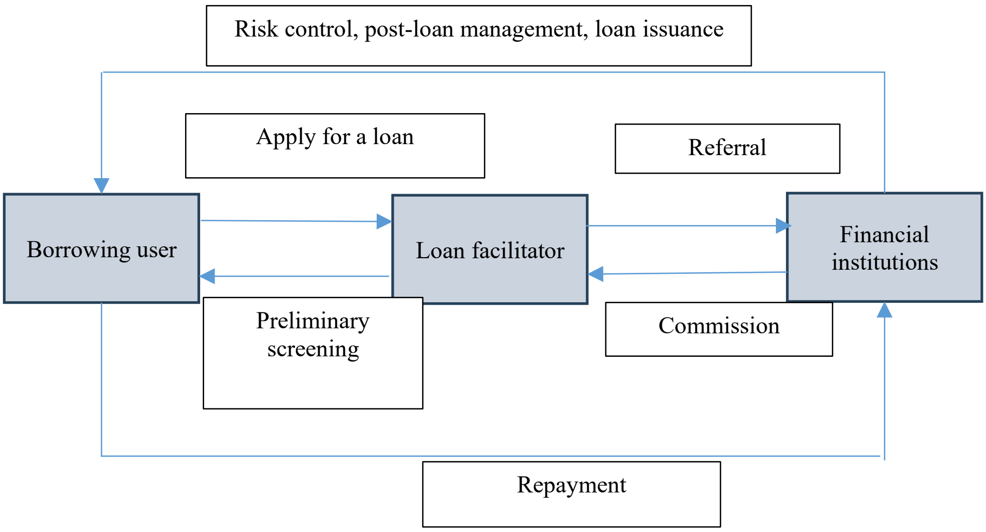

Fig. 1. Process of partnership lending

Cooperating with internet platforms is undoubtedly beneficial for small banks that lack strong fintech capabilities and cannot complete the entire credit process on their own. Partnering with loan facilitators not only helps them acquire customers but also reduces the cost of building a risk control system. However, over-reliance on the screening provided by internet platforms also has certain drawbacks.

Lan Hai Bank, established in 2017 as the first private bank in Shandong Province, exemplifies this dynamic. In 2018, Wang Youqiang, the bank's president, told China Business Journal in an interview that private banks should leverage large ITFIN platforms and in the future, they will definitely need to rely on the power of technology to break through the limitations of physical branches and expand their capabilities.

This strategic focus on third-party internet cooperation propelled Lan Hai Bank to achieve significant growth among its peers in the private banking sector. After 2018, the bank entered a period of high-speed growth, with its asset size nearly tripling, revenue increasing by 5.6 times, and net profit more than tripling. However, this rapid growth was also due to its excessive reliance on internet loan facilitators. In 2024, Lan Hai Bank reached a turning point, with a sudden decline in both revenue and net profit—its net profit nearly halved.

The increased regulatory pressure, particularly regarding online deposit and loan interest rate policies, has exposed vulnerabilities in the bank's operations. In recent years, Lan Hai Bank has faced repeated regulatory penalties for non-compliance in internet lending. In the first half of 2024 alone, the bank received two fines totalling 1.4 million CNY for inadequate pre-loan investigation and post-loan management. This highlights that small banks relying solely on loan facilitators for risk control may struggle to adapt to market changes and could neglect risk management.

In addition to partnership lending, another form of cooperation between banks and internet platforms is co-financing. Here, both parties contribute funds in a certain proportion to jointly issue loans to borrowers. This approach can expand loan types, enrich loan portfolios, and share risk control advantages.

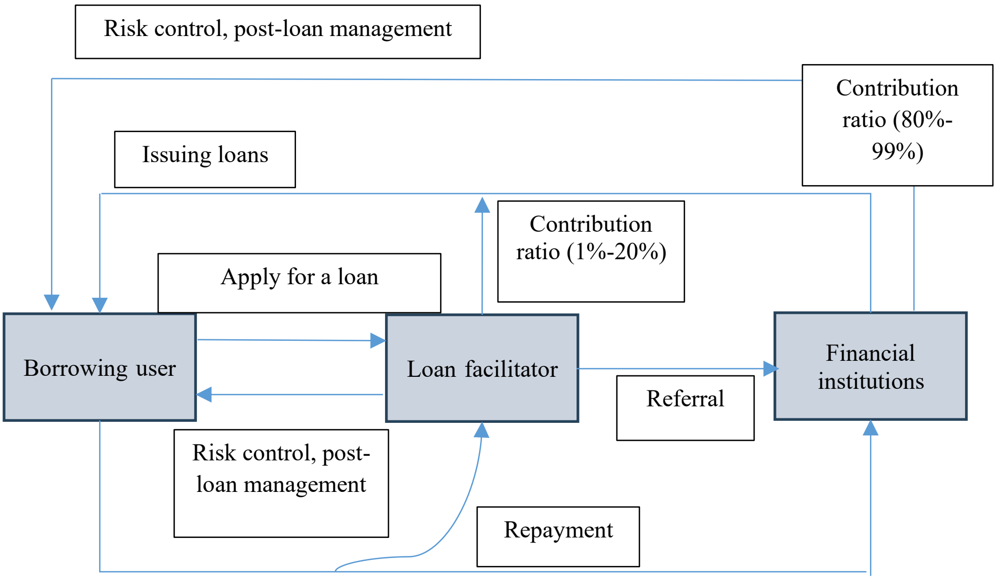

Fig. 2. Process of partnership lending

The process can be observed in Fig. 2. The primary distinction between co-financing and partnership lending is that the loan facilitator participates in the funding. Typically, the loan facilitator contributes a smaller portion, while the bank provides the majority of the funds. The loan facilitator does not charge the bank a commission but leverages the bank's substantial capital to share the risk. Funding Circle serves as a prime example.

Funding Circle, a new commercial lender, has been actively seeking new partnerships and plans to collaborate with additional banks following its cooperation with INTRUST Bank. James Meekings of Funding Circle stated, After the cooperation between the two sides, customers can be introduced from the bank. This is a win-win situation for business owners and can help more British enterprises obtain funds [10].

Stuart Law, CEO of P2P lending company Assetz Capital, commented, Why are banks now willing to lend through third parties rather than through their own channels? In my opinion, this indicates that many enterprises have lost so much confidence in banks that they can no longer attract these borrowers. Therefore, cooperating with P2P lenders is a remedial measure for banks to approach those lost customers [11].

Besides private investors, there has been an increasing number of inquiries from institutional investors seeking higher and stable returns provided by P2P lending companies like Funding Circle and Assetz Capital. Thus, such cooperation is not surprising.

From this perspective, co-financing can utilize the reputation of ITFIN to meet customer needs. The benefits brought by the cooperation are significant and should not be underestimated.

3.3 Innovation in wealth management products

3.3.1 Multi-channel sales cooperation

To adapt to changes in customer consumption habits and address operational pressures, banks are adjusting their channel layouts and exploring multi-channel business strategies. A notable example is Isbank, the largest private bank in Turkey. In recent years, Isbank has focused on maximizing the potential of ATMs by developing them into important convergence points for various business channels. Using an intelligent queuing system, the ATM pushes product information to the next user when the interval between the last three transactions exceeds 9 minutes. By connecting the ATM network with the bank's CRM, Isbank can enhance the relevance of the product information it pushes. Customers can decide whether they need the product within 45 seconds. If the customer responds positively, the bank's call center promptly follows up and guides the customer through the subsequent process. Actual operation data shows that this innovation has significantly contributed to product marketing. The success rate initiated through the ATM channel is 50% higher than that of the counter channel alone for the same product, without any increase in customer complaints.

3.3.2 Robo-advisory technology

The growth potential of banks working with internet technology is not guaranteed. Since 2016, domestic banks, funds, and securities firms have successively launched robo-advisory services. However, in 2022, China Merchants Bank suspended its robo-advisory service system, Capricorn Smart Investment. Similarly, two of the first three pilot banks for investment advisory services also suspended related businesses: ICBC's AI Investment suspended product subscription, and Ping’an Bank's Ping’an Smart Investment was removed from the app. The main reason is that regulatory authorities mandated that only licensed companies can recommend funds. As a result, many unlicensed banks had to remove their products. Moreover, the performance of these services was not satisfactory. Most users reported issues such as excessive handling fees, lack of utility, low returns, and insufficient intelligence. These issues have hindered the development of robo-advisory in China over the past two years. Investors' feedback indicated that the AI of robo-advisory showed a lag in response, and investors were unclear about the underlying operation principles. Wang Peng, an associate researcher at the Beijing Academy of Social Sciences, noted that to promote the application and development of large models, it is necessary to increase investment in research and development, improve the quality of data, and strengthen supervision and policy guidance to create a better environment for the development of the robo-advisory field.

4 Feasibility analysis of cooperative implementation

4.1 Technical feasibility

The cooperation between internet finance and traditional banking should be based on technical compatibility. Currently, China's fintech infrastructure has developed a hierarchical architecture, allowing third-party payment platforms to connect seamlessly with banks' core systems through standardized API interfaces [12]. For example, the Network Clearing Platform (NPC) uses distributed cloud computing technology, with a peak daily transaction processing capacity exceeding 1 billion transactions [13]. It supports a transaction success rate of 99.99% between banks and payment institutions. The application of blockchain technology in cross-border payments, such as AntChain's Trusple platform, further verifies the feasibility of data encryption and cross-chain protocols [14].

However, technical obstacles still exist due to differences in data security standards among heterogeneous systems. Traditional banks' core systems are mostly based on the IOE architecture, while internet enterprises generally adopt open-source technology stacks. Protocol conversion must be achieved through middleware [15]. Notably, the cooperation between China CITIC Bank and Baidu Smart Cloud in 2021 showed that, despite using financial-grade distributed middleware to connect the core system with the AI module, protocol conversion led to a 15% increase in transaction processing delays [15]. This technical friction directly impacts user experience. For example, the customer churn rate for real-time credit card credit granting business increased by 2.3% during the same period.

To address these issues, the Financial Open-Source Technology Ecosystem Laboratory, led by the People's Bank of China, released the White Paper on Cross-System Docking Technology in 2023. It mandates that API interface response times should be less than 200 milliseconds. Currently, 18 institutions have passed this certification [12].

4.2 Economic feasibility

The economic benefits of cooperation are reflected in decreasing marginal costs and economies of scale. According to data from the China Banking and Insurance Regulatory Commission (CBIRC), the customer acquisition cost per user for banks building their own mobile payment systems is 120-150 yuan, while it can be reduced to 20-30 yuan through the Alipay channel [16].

In the field of joint loans, the cooperation between WeBank and state-owned large banks shows that internet platforms contribute long-tail customer traffic (with an annual growth rate exceeding 40%), while banks provide low-cost funds (with a capital cost difference of 2-3 percentage points). This forms a 30-70 split revenue-sharing model [17]. However, there is a need to be vigilant against the increase in channel fees caused by excessive dependence on cooperation. For example, the customer acquisition flow rate paid by some city commercial banks to third-party platforms has increased from 0.5% to 1.2% [18].

4.3 Policy and regulatory environment

China's regulatory framework features a dual-track approach of encouraging innovation and preventing risks. The Fintech Development Plan in 2022 clearly supports the sharing of data elements among institutions, but the Data Security Law requires the localized storage of financial information, increasing the compliance costs of cooperation [19, 20].

In the payment field, the severing direct connections policy has forced Alipay and WeChat Pay to fully connect to the NPC, enabling banks to regain control over transaction information [21]. The regulatory sandbox mechanism has piloted 56 fintech innovation projects, 32% of which involve cross-institutional cooperation [16]. However, the restriction on the capital contribution ratio of joint loans (internet platforms shall not exceed 30%) objectively limits the depth of cooperation [22].

4.4 Industry adaptability

The agile transformation of traditional banks and the financial compliance transformation of internet enterprises form the basis for cooperation. All six major state-owned banks have established fintech subsidiaries, and the proportion of R&D investment has increased from 1.2% in 2018 to 3.5% in 2022 [23]. Internet platforms are also accelerating their compliance transformation. For example, JD Digits has shifted 30% of its technical team to risk control modeling [24].

However, organizational culture conflicts still exist. The average time for hierarchical decision-making in banks is 45 days, while the product iteration cycle of internet enterprises is only 7 days [25]. To bridge these differences, the two parties establish mixed teams by setting up Joint Innovation Laboratories, such as the Starry Sky platform established by Ping'an Bank and Tencent [26].

5 Strategies to promote the balance between competition and cooperation

5.1 Policy level: building inclusive regulation and data sharing mechanisms

5.1.1 Improving penetrative supervision and Sandbox pilots

The cross-border nature of internet finance requires a shift from fragmented regulation to a functional approach. The Innovation Sandbox model has been successfully implemented in countries such as the UK and Singapore. By testing risks in controlled scenarios, it balances consumer protection with opportunities for fintech innovation. China could adopt similar practices by designing phased sandbox entry rules for online lending and digital payment services, along with flexible exit mechanisms. Regulatory sandboxes serve as forward-looking tools, providing a supervised experimental environment for financial innovation while ensuring feasibility and risk control [27].

5.1.2 Establishing a national financial data sharing platform

Data silos hinder cross-institutional risk prevention and control. Blockchain's distributed ledger technology enables real-time data verification across institutions, reducing risks like duplicate borrowing. Policymakers should prioritize creating a unified credit data platform led by the central bank, integrating data from industrial, tax, and judicial authorities. For example, the EU's PSD2 mandates banks to share customer data with third parties via open APIs. China could adopt an authorized sharing model tailored to its context, balancing data liquidity and privacy. A pilot project using blockchain for the Bay Area Credit Chain reduced loan approval times for SMEs from 15 days to 3 days. Further steps include optimizing top-level design, enhancing inter-departmental collaboration, clarifying profit-sharing mechanisms under the Data Security Law, and strengthening legal safeguards for cross-institutional risk management

5.2 Enterprise level: mutual empowerment and ecosystem co-construction

5.2.1 Scenario-driven and intelligent transformation of traditional banks

Banks must transition from a product-centric to a customer-centric model, building lifecycle service systems. For example, ICBC's ICBC e-Life app integrates installment payments, wealth management, and local lifestyle services, attracting over 50 million monthly users through partnerships with platforms like Meituan and Didi. CCB's Long Yixing self-service machines handle 90% of counter transactions. Research on the co-development of digital RMB and open banking highlights cases like SPD Bank's APIBank, China's first boundary-free open banking platform. By 2022, SPD Bank's API platform offered over 600 interfaces, spanning corporate services, risk assessment, and cross-border e-commerce, fostering cross-industry financial integration [28].

5.2.2 Compliance and risk management upgrades for internet companies

Ant Group's intelligent risk control system employs graph computing and deep learning, achieving 99.9% accuracy in fraud detection through real-time monitoring of 10 billion nodes. Tencent's Weilidai reduced default rates to below 0.8% after integrating with the central bank's credit system, demonstrating the efficacy of compliant data usage. Future measures should prioritize consumer protection, such as mandating transparent APR disclosures on loan pages to curb deceptive marketing. Ant Group's trial of federated learning allows collaborative model training without exposing raw data, improving fraud detection accuracy by 27% in a joint project with Bank of Communications while ensuring privacy compliance.

5.3 Technical level: open ecosystems and infrastructure co-development

5.3.1 Standardization and commercialization of open banking apis

Current challenges include fragmented API standards and limited monetization models. Open banking, underpinned by data sharing via APIs, enables developers, third parties, and clients to access financial services directly, forming a new ecosystem. However, API security remains critical. In 2020, the People's Bank of China issued the Commercial Bank API Security Management Standards, defining API types and security levels across their lifecycle. The 2021 Financial Data Security—Data Lifecycle Security Specifications further mandated API protection technologies for cross-domain data flows. China could draw inspiration from the UK's CMA Open Banking initiative, requiring major banks to open core data interfaces to spur market innovation. Standardized APIs also facilitate digital RMB adoption, as seen in WeChat Pay's collaboration with state-owned banks on cross-border smart contracts, processing over ¥100 billion annually [29].

5.3.2 Integration of distributed technologies and digital rmb

The digital RMB (e-CNY) creates new opportunities for technical collaboration. For instance, WeChat Pay and major banks tested e-CNY red envelopes using Alibaba Cloud and Postal Savings Bank's OceanBase database, which supports high-concurrency scenarios (e.g., 500,000 transactions per second) and seamless migration from Oracle. In cross-border payments, Ant Group's Trusple platform employs blockchain-based smart contracts to automate settlements. A user, Ms. Yuan, reported receiving payment within a day for exporting crystal glassware to Mexico, compared to the previous week-long process. Trusple, now partnering with 50 global banks, leverages distributed ledger technology (DLT) to reduce transfer times to 3 seconds and enhance transaction transparency by 60%, setting a technical precedent for international payment interoperability [30].

6 Conclusions

6.1 Research summary

The study reveals that the competition between internet finance and traditional banking fundamentally reflects a trade-off between technological efficiency and financial stability:
Payment Sector: Internet finance disrupts traditional cash transactions through the convenience of mobile payments (e.g., Alipay), while banks regain control of payment data via platforms like NetsUnion. This system integration fosters a symbiotic relationship where competition drives innovation, and collaboration shares benefits.

Lending Sector: Internet platforms leverage big data risk management to serve long-tail clients (e.g., WeBank), while traditional banks adopt joint lending models (e.g., partnerships with Funding Circle) to compensate for traffic limitations, achieving bidirectional empowerment of capital and technology.

Wealth Management Sector: Banks offer customized products for high-net-worth clients, while internet platforms attract mass investors with low-threshold solutions (e.g., Yu’e Bao). The collaborative development of smart advisory technologies (e.g., Ping’an’s Star Cloud Platform) further expands market boundaries.

6.2 Limitations and future directions

This study acknowledges several limitations: First, the long-term effects of certain cases, such as P2P lending, remain uncertain due to ongoing industry regulatory adjustments. Second, the expanding pilot of the digital yuan (e-CNY) has the potential to reshape payment ecosystems, thereby necessitating further impact assessments. Third, localization experiences in Southeast Asian markets, such as WeChat Pay MY, require systematic summarization. Future research directions should focus on technological integration, specifically exploring cross-institutional applications of large models in smart advisory systems and risk warning mechanisms. Additionally, regulatory coordination is needed to establish cross-border data flow rules based on platforms like Trusple. Lastly, social impact evaluation should be conducted to quantify the contribution of rural digital payment initiatives, such as JD’s Inclusive Finance projects, to regional economic equity.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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